BELLSOUTH

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July 27, 2000

VIA HAND DELIVERY

David Waddell, Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

Re: *Petition for Arbitration of the Interconnection Agreement Between BellSouth Telecommunications, Inc. and Intermedia Communications Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996*
Docket No. 99-00948

Dear Mr. Waddell:

Enclosed are the original and thirteen copies of the non-proprietary portions of BellSouth's Response to Intermedia's First Request for Production of Documents. Copies of the enclosed are being provided to counsel of record for all parties.

Very truly yours,

Guy M. Hicks

GMH:ch
Enclosure

221756

CERTIFICATE OF SERVICE

I hereby certify that on July 27, 2000, a copy of the foregoing document was served on the parties of record, via the method indicated:

[ ] Hand
[√] Mail
[ ] Facsimile
[ ] Overnight

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Intermedia Communications, Inc.
360 Interstate North Parkway, #500
Atlanta, GA 30339

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Scott Saperstein
Senior Policy Counsel
Intermedia Communications, Inc.
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Tampa, FL 33619

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H. LaDon Baltimore, Esquire
Farrar & Bates
211 Seventh Ave. N, # 320
Nashville, TN 37219-1823

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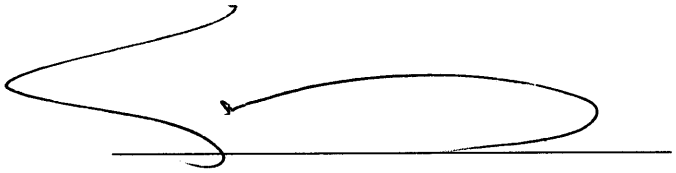
Enrico C. Soriano
Kelley, Drye & Warren
1200 19th St., NW, #500
Washington, DC 20036



REQUEST: Produce copies of all documents identified or referenced by BellSouth in response to Intermedia's First Set of Interrogatories.

RESPONSE: See BellSouth's cost studies filed in Docket Nos. 97-01262 and 99-00377 provided in response to Intermedia's 1st Request for Production, Item No. 43.

REQUEST: Produce any and all effective interconnection agreements between BellSouth and other telecommunications carriers that provide for reciprocal compensation at *elemental* interconnection rates.

RESPONSE: BellSouth objects to this request for production on the grounds that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. BellSouth further objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all effective interconnection agreements between BellSouth and other telecommunications carriers that provide for reciprocal compensation at *composite* rates.

RESPONSE: BellSouth objects to this request for production on the grounds that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. BellSouth further objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all documents, including diagrams, schematics, or illustrations showing the manner in which BellSouth terminates local calls originated by other telecommunications carriers.

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, BellSouth's General Subscriber Service Tariff (GSST), Section A3, describes the regulations associated with BellSouth's local service offerings. However, most networks route public switched traffic based primarily on the digits dialed and associated signaling information. When an originating call is dialed that appears local to the originating switch, it will be routed to the switch serving the NPA/NXX of the dialed number. However, there are non-local calls that appear local to the originating switch, such as originating Feature Group A (FGA) and ISP-bound traffic. For example, ISP traffic is normally 7-digit dialed (or 10-digit dialed depending on the NPA exhaust conditions) by the originating end user and appears to the network equipment as a local call in the same manner as originating Feature Group A switched access calls or IP Telephony switched access calls. The originating network cannot distinguish these interstate access calls from true local calls from either a switching or trunking perspective unless they are assigned to unique, dedicated NPA/NXXs. Since there are no technical ways to differentiate 7-digit dialed switched access calls from true 7-digit dialed local calls, the network must treat them the same when being delivered to the same Intermedia location. Therefore, neither the digits dialed nor the trunk group over which a call is routed is determinative of the jurisdictional nature of the traffic carried. Nor can the BellSouth network determine where the call is delivered once the call is handed off to Intermedia.

However, BellSouth does route 7-digit dialed calls destined to Intermedia differently than BellSouth does for its own purposes. For example, on 7-digit dialed calls between BellSouth end users, BellSouth normally routes those calls directly between BellSouth end office switches, thereby utilizing only two Class 5 end office switches and minimum transport facilities. However, since Intermedia and other CLECs have elected to deploy their networks using centralized switches and may have only one Point of Interface for a LATA, BellSouth must first route the 7-digit calls

RESPONSE: (continued)

to a BellSouth tandem switch using the BellSouth network, switch the calls through the tandem, then route to a trunk group connected to Intermedia's end office switch. This adds considerable network switching (both the originating end office and a tandem switch) and transport costs to BellSouth. Additionally, whereas BellSouth has distributed internet traffic on a web of transport facilities directly between BellSouth end offices to avoid network congestion, this is not the case with internet traffic delivered to Intermedia and most other CLECs. Concentrating traffic (particularly internet traffic) to a small number of Points of Interfaces in a given LATA results in significant traffic congestion at the tandem switches and uneconomical use of transport facilities. See the attached illustration.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 4

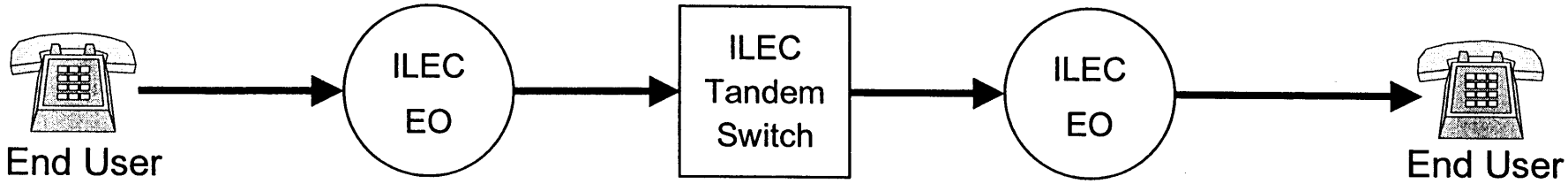
ATTACHMENT

Reciprocal Compensation

- **ILEC receives monthly fee from its end user to apply towards the cost of terminating local calls**

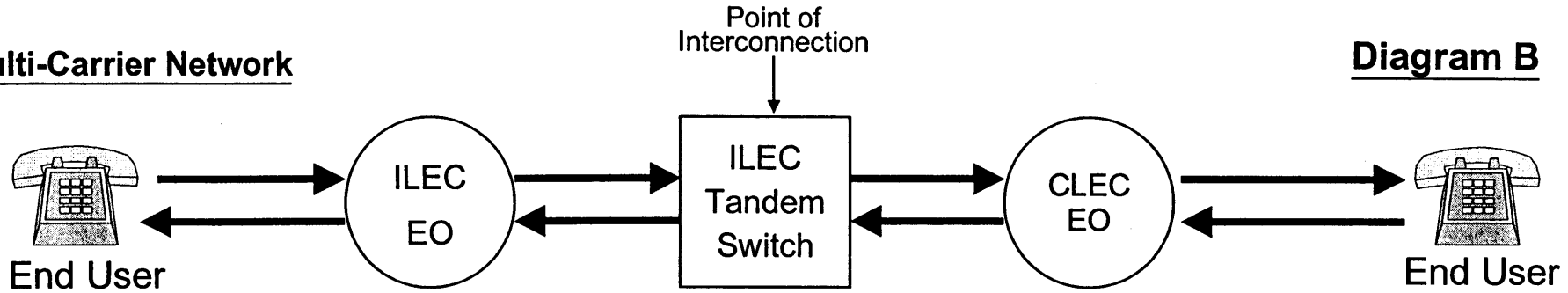
Single Carrier Network

Diagram A



Multi-Carrier Network

Diagram B



Call Flow

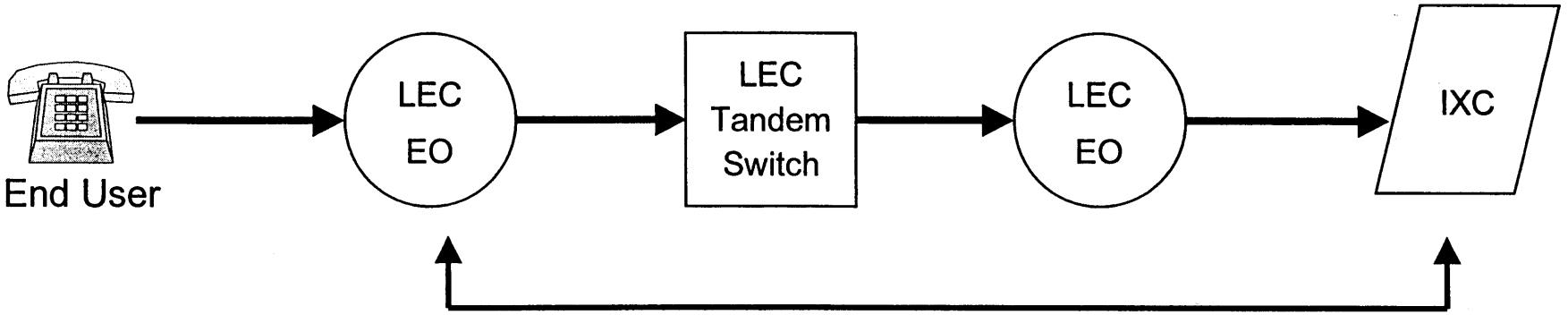
ILEC pays CLEC
Reciprocal Compensation

Call Flow

CLEC pays ILEC
Reciprocal Compensation

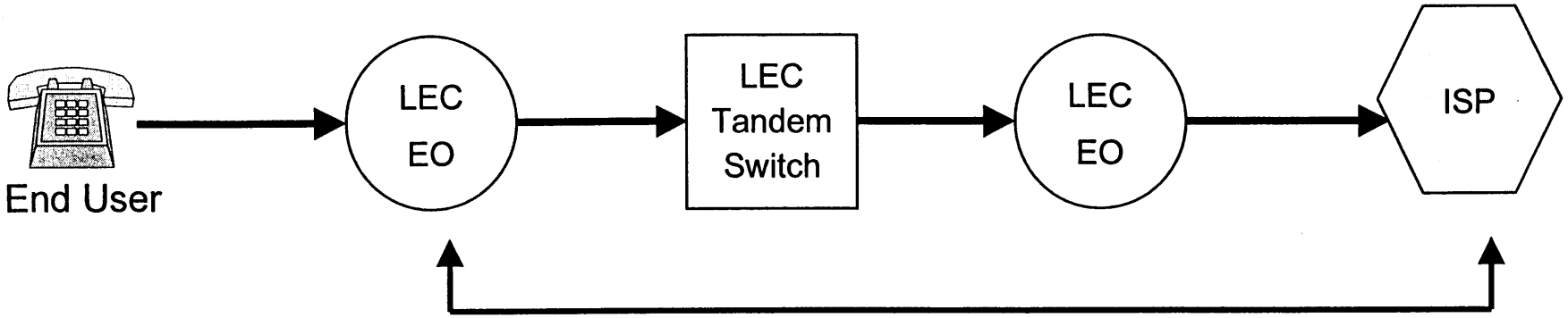
Access Service for IXC-Bound and ISP-Bound Traffic Involving Single Carrier Network

Diagram C



IXC pays access charges to LEC to cover cost of using LEC facilities.

Diagram D

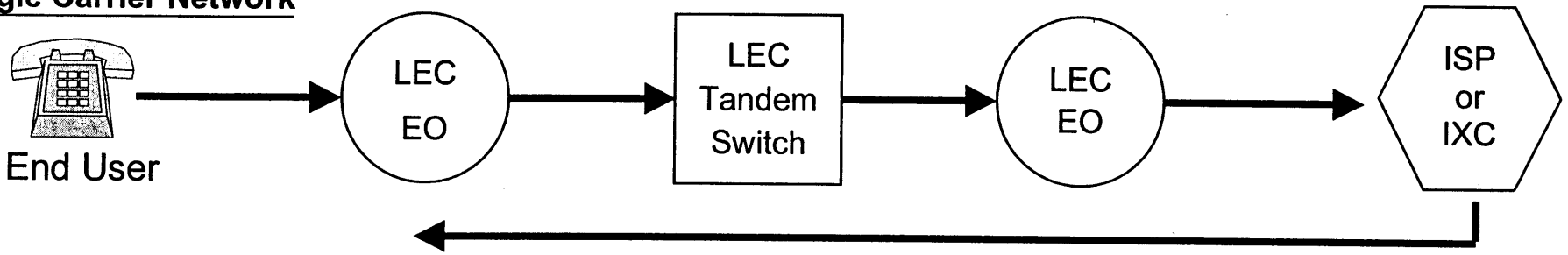


ISP pays the LEC for access service to cover this cost.

Single Network and Multi-Network Provision of Access Service

Diagram E

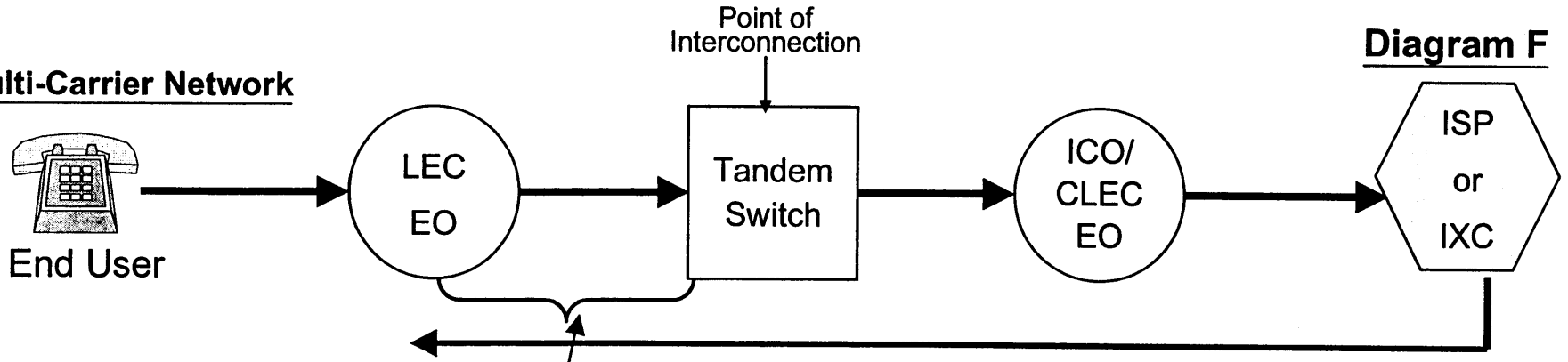
Single Carrier Network



ISP pays the LEC for access service to cover this cost.

Diagram F

Multi-Carrier Network



CLEC/ICO should reimburse LEC for this cost.

ISP pays the CLEC/ICO, for access service to cover this cost

REQUEST: Produce any and all documents, including diagrams, schematics, or illustrations showing the manner in which BellSouth originates local calls and terminates those calls to other telecommunications carriers.

RESPONSE: BellSouth objects to this request for production on the grounds that it is vague, overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the aforementioned objection, see BellSouth's response to Intermedia's 1st Request for Production, Item No. 4.

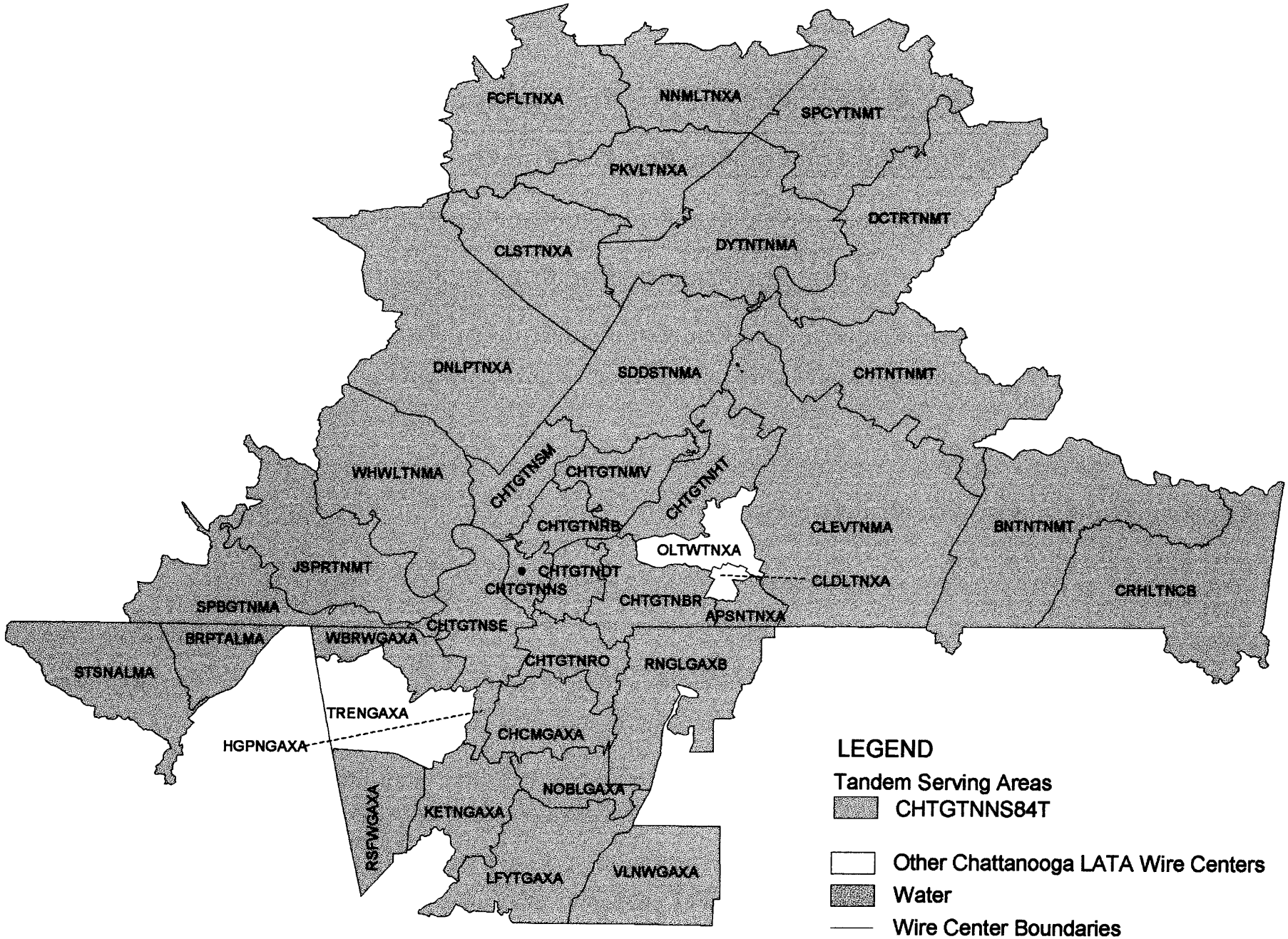
REQUEST: Produce any and all documents, including diagrams, schematics, or illustrations showing the manner in which other telecommunications carriers terminate local calls originated by BellSouth.

RESPONSE: BellSouth objects to this request for production on the grounds that it is vague, overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the aforementioned objection, see BellSouth's response to Intermedia's 1st Request for Production, Item No. 4.

REQUEST: Produce a diagram, illustration, or schematic of BellSouth's network in Tennessee showing how its central offices are interconnected.

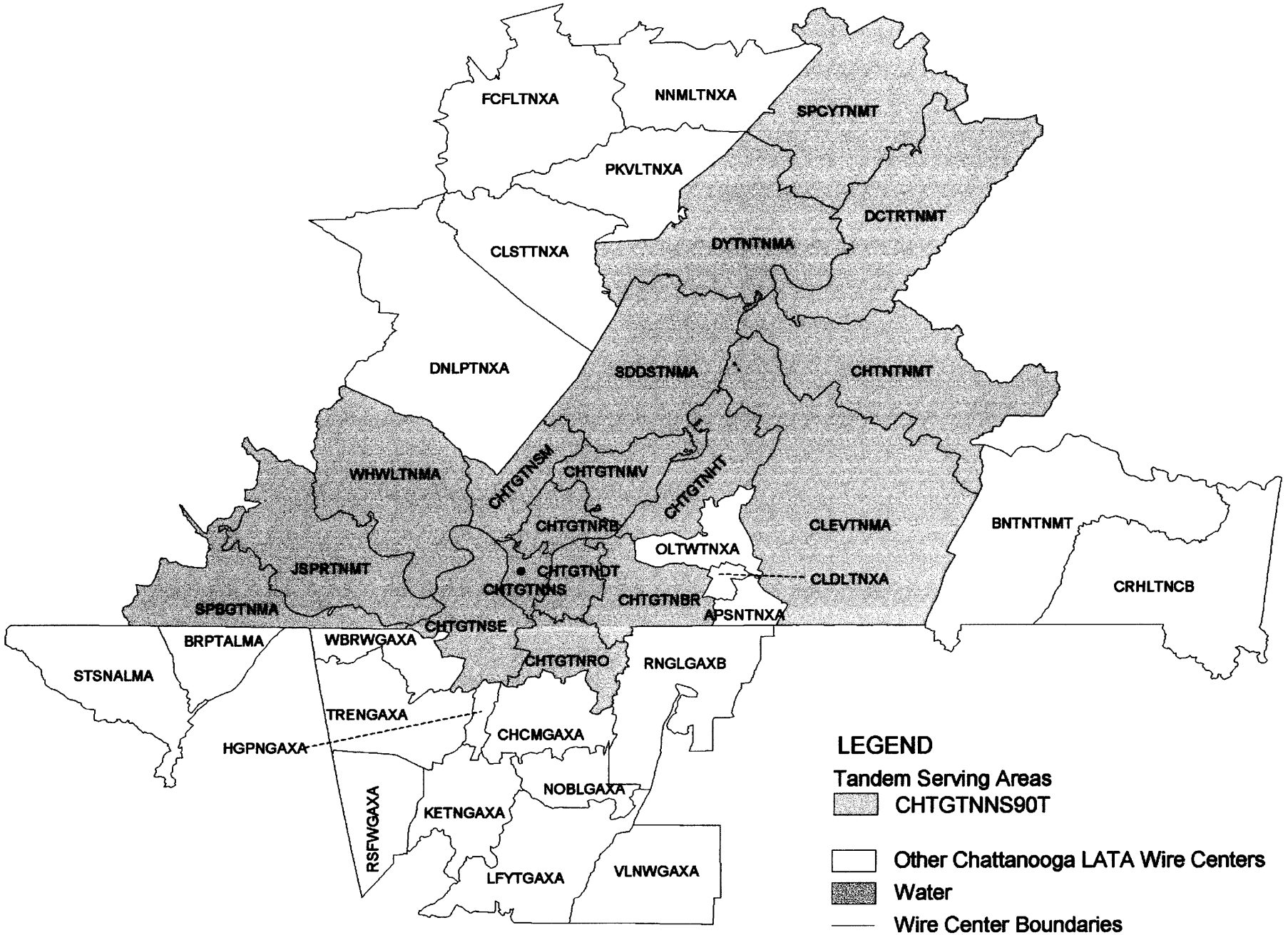
RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and oppressive and not reasonably calculated to lead to the discovery of admissible evidence.

BellSouth Chattanooga LATA - Access Tandem Serving Area



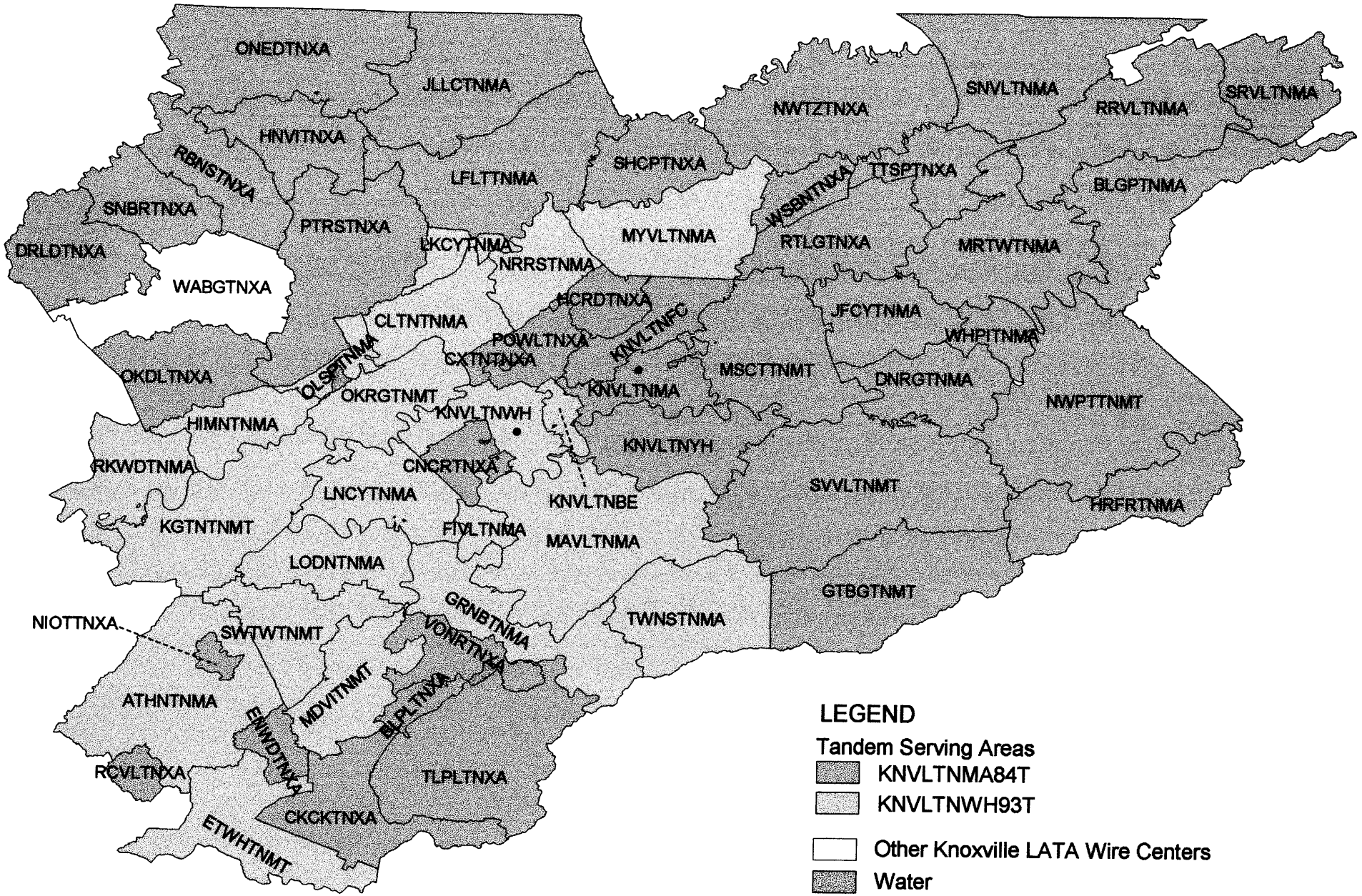
Date: 7-17-00

BellSouth Chattanooga LATA - Local Tandem Serving Area



Date: 7-17-00

BellSouth Knoxville LATA - Access Tandem Serving Area



LEGEND

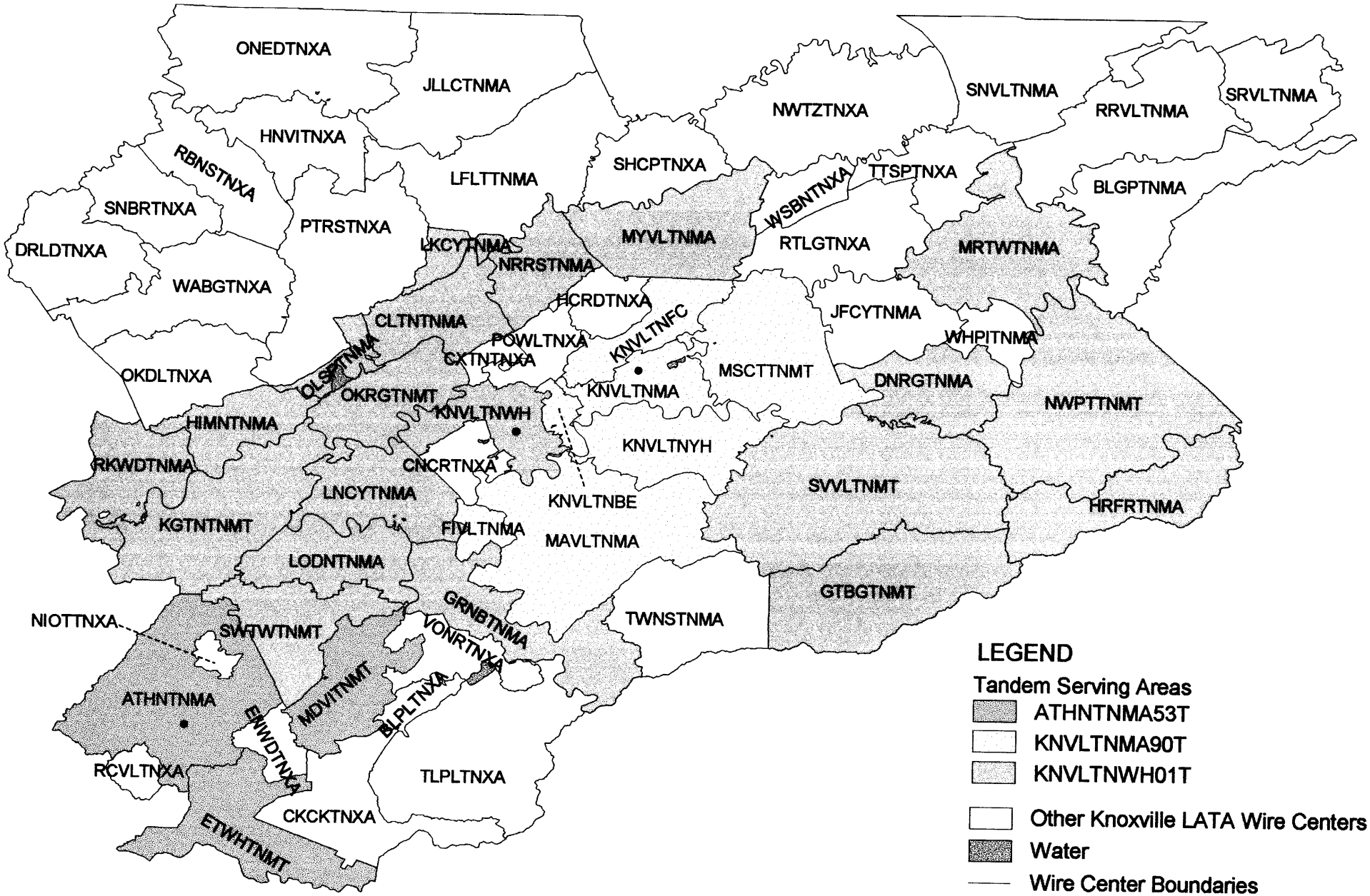
Tandem Serving Areas

- KNVLTNMA84T
- KNVLTNWH93T

- Other Knoxville LATA Wire Centers
- Water
- Wire Center Boundaries
- BellSouth Tandem Location

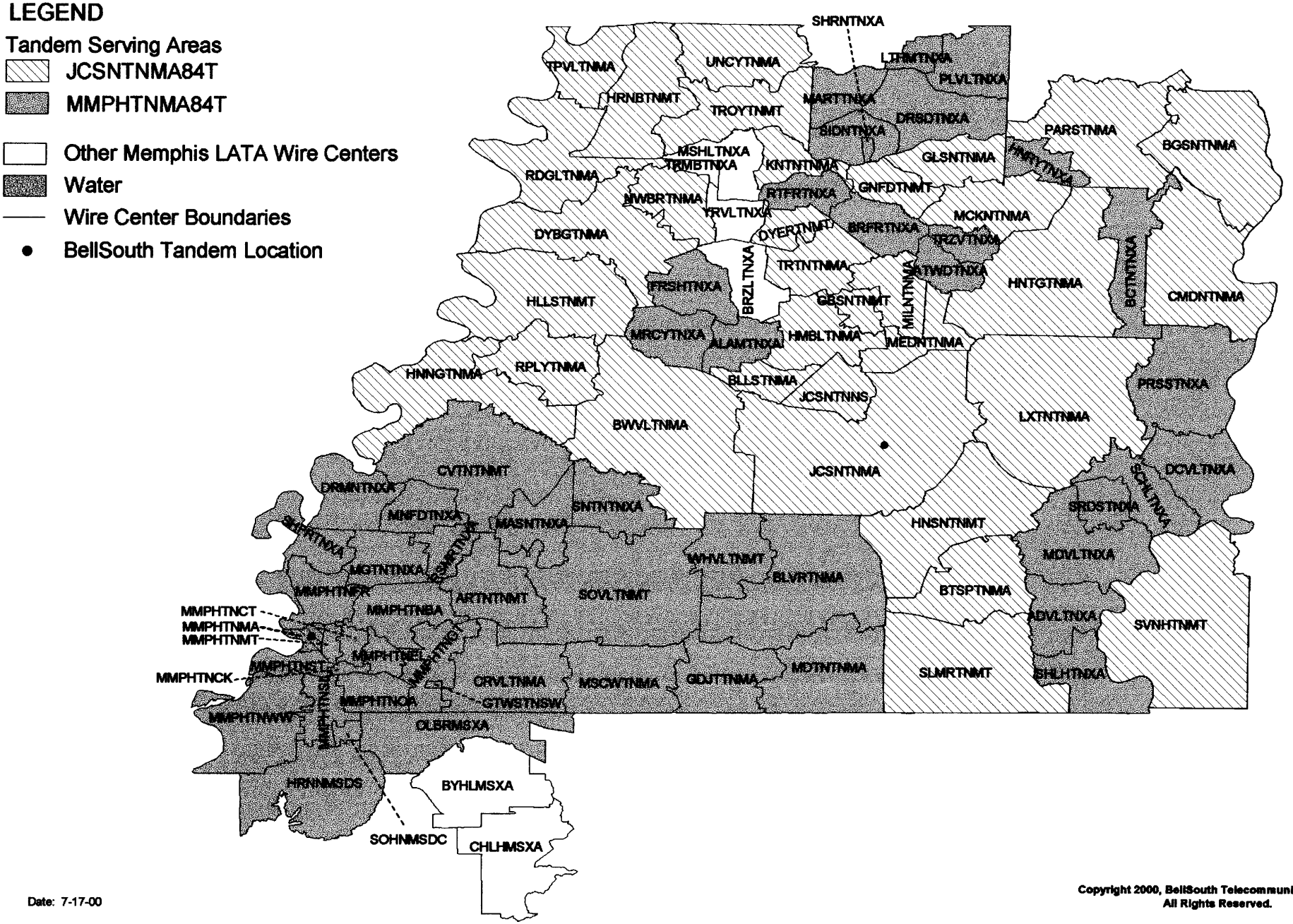
Date: 7-17-00

BellSouth Knoxville LATA - Local Tandem Serving Area

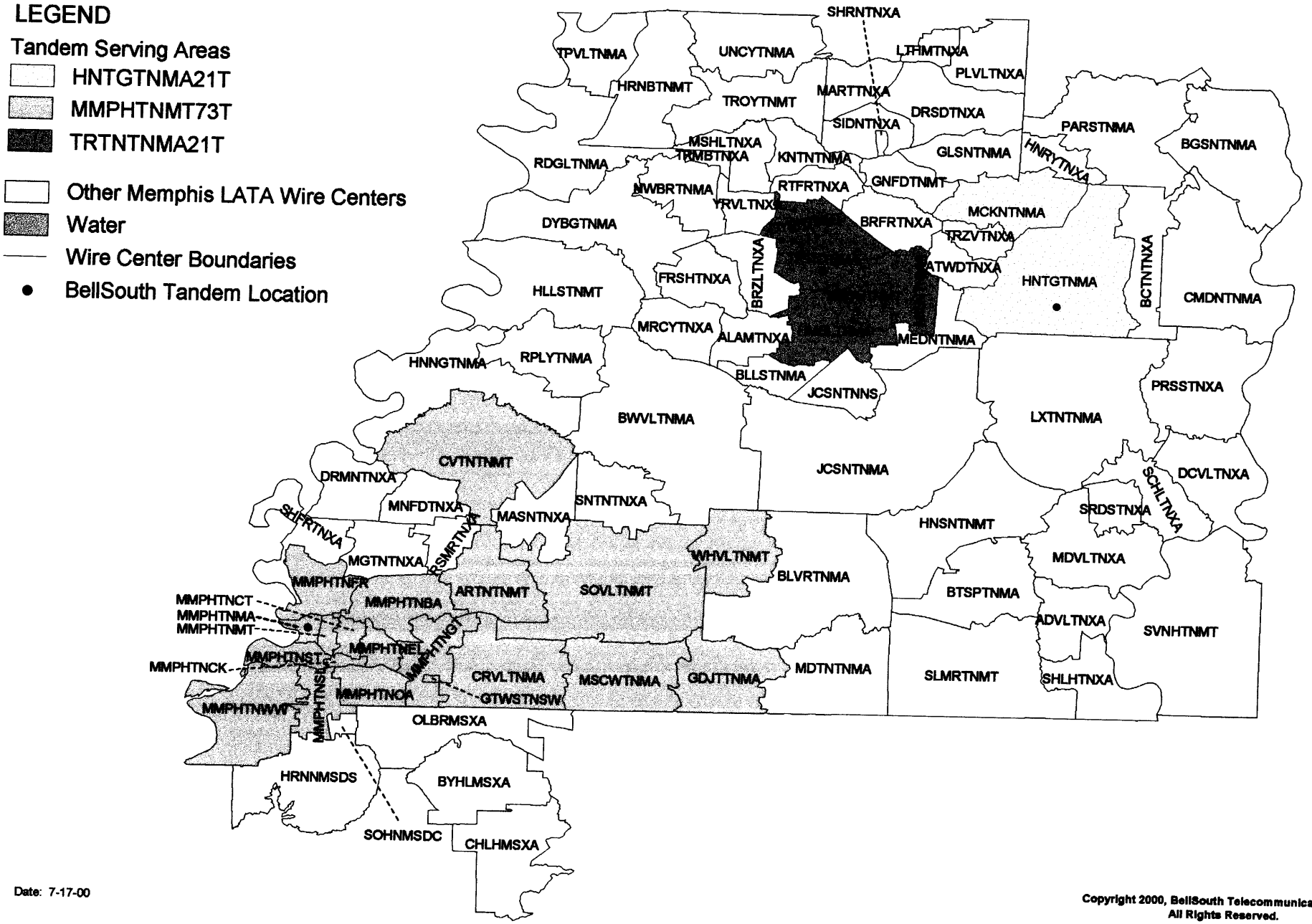


Date: 7-17-00

BellSouth Memphis LATA - Access Tandem Serving Area

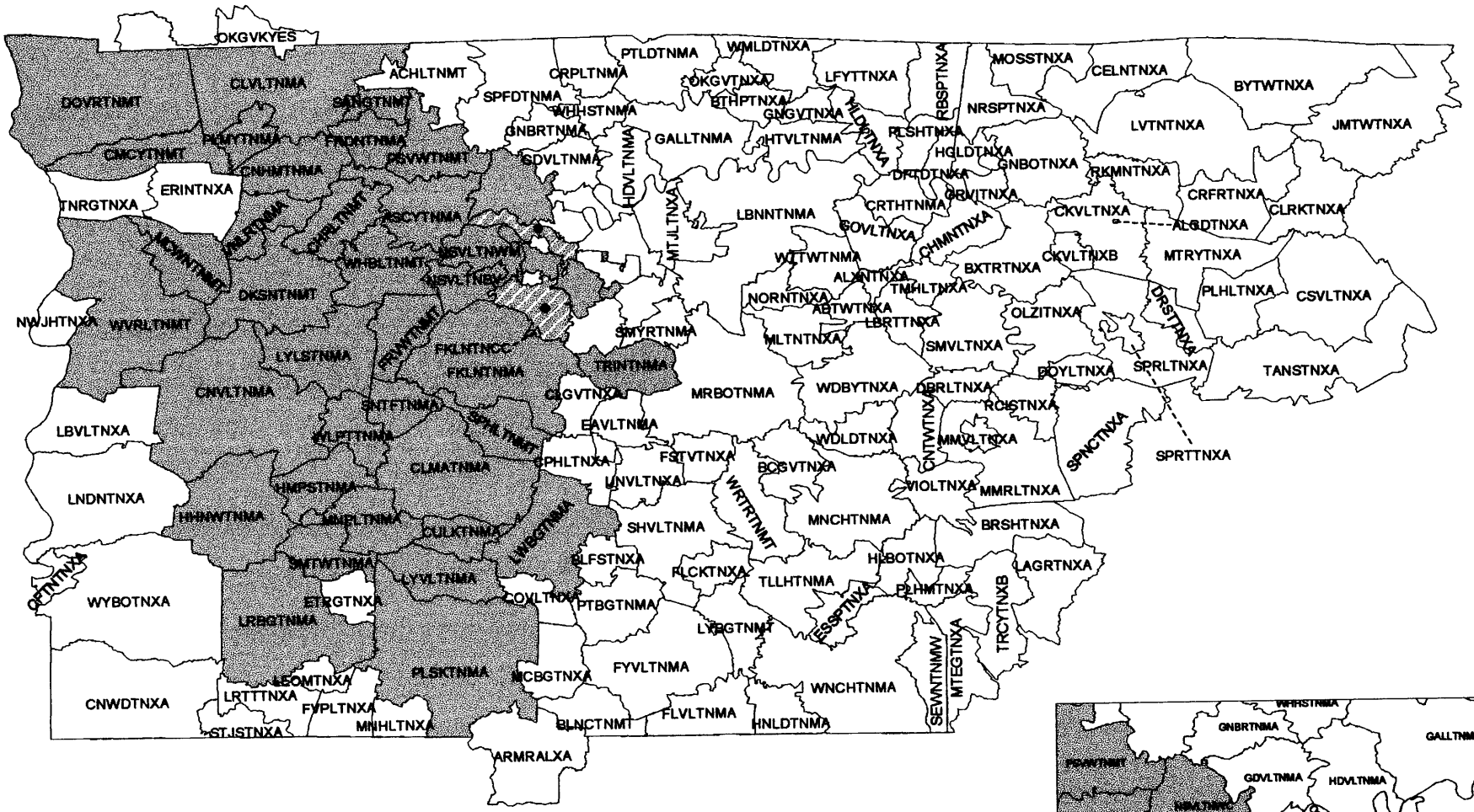


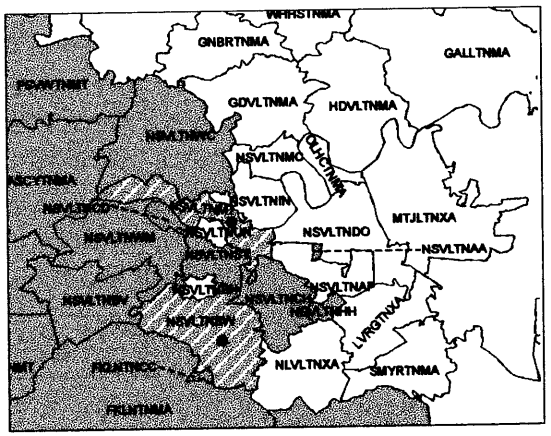
BellSouth Memphis LATA - Local Tandem Serving Area



Date: 7-17-00

BellSouth Nashville LATA - Access Tandem Serving Area





LEGEND

Tandem Serving Areas

- NSVLTNMT84T
- NSVLTNWM92T

- Other Nashville LATA Wire Centers
- Water
- Wire Center Boundaries
- BellSouth Tandem Location

Date: 7-17-00

REQUEST: Produce illustrations or maps showing BellSouth's calling areas in Tennessee and/or the geographic areas covered by its switches in Tennessee.

RESPONSE: Responsive documents are attached.

REQUEST: Produce a diagram, schematic, or illustration of BellSouth's circuit-switched network in Tennessee showing how its circuit-switched network its interconnected with the circuit-switched networks of other telecommunications carriers with whom it interconnects.

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and oppressive and not reasonably calculated to lead to the discovery of admissible evidence.

REQUEST: Produce a diagram, schematic, or illustration of BellSouth's packet-switched network in Tennessee showing how its packet-switched network is interconnected with the packet-switched networks of other telecommunications carriers with whom it has interconnection agreements.

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and oppressive and not reasonably calculated to lead to the discovery of admissible evidence.

REQUEST: Produce any and all documents demonstrating that Intermedia's switches do not serve geographic areas comparable to BellSouth's tandems.

RESPONSE: BellSouth does not possess any documents illustrating whether or not Intermedia's end office switches serve geographic areas comparable to BellSouth's tandem switches. Such information is solely in the possession of Intermedia; moreover, Intermedia has the burden of proof on this issue. BellSouth reserves the right to supplement this response.

REQUEST: Produce any and all documents demonstrating that Intermedia's switches do not perform a tandem function.

RESPONSE: At the present time, BellSouth is without specific knowledge to know whether or not Intermedia's switches perform tandem switch functions. Such information is solely in the possession of Intermedia; moreover, Intermedia has the burden of proof on this issue. BellSouth reserves the right to supplement this response.

REQUEST: Produce any and all documents demonstrating that Intermedia's switch is not providing a common transport or tandem function, but is switching traffic through its end office for delivery of that traffic from that switch to the called party's premises.

RESPONSE: BellSouth is not in possession of such documents. However, BellSouth's TN Switched Access tariff, Section 6.1, defines the various access interconnection functions and rate elements that have been well established. Tandem switches, among other things, switch traffic between other switches (i.e., trunk to trunk). Common transport transports traffic between a tandem switch and an end office switch. Common transport is not "loop" transport from the line side of the end office to the end user premise.

REQUEST: Produce any and all Authority decisions which have found that a competing telecommunications carrier's switch serves an area comparable to that served by BellSouth's tandem switch.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all Authority decisions which have found that a competing telecommunications carrier's switch provides the same functionality as that provided by BellSouth's tandem switch.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all Authority decisions which have found that a competing telecommunications carrier's switch *does not* serve an area comparable to that served by BellSouth's tandem switch.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all Authority decisions which have found that a competing telecommunications carrier's switch *does not* provide the same functionality as that provided by BellSouth's tandem switch.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all cost studies underlying BellSouth's reciprocal compensation charges.

RESPONSE: See the cost elements for the transport and termination of local traffic filed for unbundled network elements in the cost studies provided in BellSouth's response to Intermedia's 1st Request for Production, Item No. 43.

REQUEST: Produce any and all Authority decisions which address the rates for virtual and physical collocation, including but not limited to, space preparation/conditioning charges.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all effective interconnection agreements between BellSouth and other telecommunications carriers which reflect the space preparation rates established and/or approved by the Authority.

RESPONSE: BellSouth objects to this request for production on the grounds that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, there are no interconnection agreements between BellSouth and other telecommunications carriers that reflect the space preparation rates established and/or approved by the Authority.

REQUEST: Produce any and all cost studies underlying BellSouth's collocation charges.

RESPONSE: See BellSouth's cost studies filed in Docket Nos. 97-01262 and 99-00430 provided in Intermedia's 1st Request for Production, Item No. 43.

REQUEST: Produce copies of all effective interconnection agreements between BellSouth and other telecommunications carriers in Tennessee which provide for virtual-to-physical collocation conversions.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objection, BellSouth has attached a list of the pertinent interconnection/collocation agreements.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 22

ATTACHMENT

Telecommunications Carriers

2nd Century Communications, Inc.
Access Integrated Networks, Inc.
Advanced Telecommunications Networks, Inc.
Aeneas Communications
AL-Call, Inc.
ALEC, Inc.
All-Pro Communications, Inc.
Alliance Network, Inc.
American MetroComm Corp.
AVANA Communications Corporation
BellSouth Long Distance, Inc.
BlueStar Networks, Inc.
Board of Lights and Water d/b/a Marietta FiberNet
Broadband Office Communications, Inc.
Broadspan Communications, Inc. d/b/a Primary Network Communications, Inc.
Business Telecom, Inc. d/b/a BTI
Cardinal Communications of TN, Inc.
Cbeyond Communications, LLC
Centennial Florida Switch Corporation
Chapel Services, Inc. (CSI)
CKS, Inc.
Communication Services Integrated, Inc.
Community Telephone Corporation
COMPASS Telecommunications, Inc.
Computer Business Sciences, Inc.
Convergence, Inc.
CPU Solutions Corp.
CRG International, Inc. d/b/a Network One
Daytona Telephone Company
Diamond Telephone Service, Inc.
DIECA Communications, Inc. d/b/a Covad Communications Company
Discount Communications, Inc.
DMJ Communications, Inc.
DSLnet Communications, LLC
DukeNet Communications, Inc.
DV2, Inc.
Eagle Communications, Inc.
Electric Power Board of Chattanooga
Empire Telecom Services, Inc.
Ernest Communications, Inc.
Essex Communications, Inc. d/b/a eLEC Communications, Inc.
E-Z Access USA, Inc.
Fairpoint Communications Solutions Corp.
FPL Fibernet, LLC
Frontier Local Services, Inc.
Fuzion Wireless Communications, Inc.
Gietel, Inc.
Global Crossing Local Services, Inc. and Global Crossing Telemanagement, Inc.
GNet Telecom
GulfPines Communications, LLC
iConnect Corp.
IDS Long Distance, Inc.
Intercontinental Com Grp dba Fusion Telecom
International Web Technologies, Inc.
IntraLEC, Inc.
JATO Communications Corp.

Telecommunications Carriers

LEC Unwired, LLC
LightNetworks, Inc.
LogicSouth, Inc.
Maxcess, Inc.
Mebtel Integrated Communications Solutions, LLC d/b/a Integrated Comm Solutions
Metrolink Internet Svcs of Pt St Lucie, Inc.
Metromedia Fiber Network Services, Inc.
MicroSun Telecommunications, Inc.
Momentum Business Solutions, Inc.
Money To Go, Inc.
Mpower Communications Corporation, Inc.
MVX.Com Communications
NA Communications, Inc.
NationNET Communications Corporation
Net 2000 Communications, Inc.
NET-tel Corporation
Network Access Solutions Corp
Network Telephone Corp.
New Edge Networks, Inc.
NEXTLINK Tennessee
Nustar Telephone Company
O1 Communications, Inc.
Oltronics, Inc.
One Communications Systems, Inc.
One Point Communications, LLC
OptiLink Communications, Inc.
Palm Beach Telephone Co.
Pathnet
Progress Telecom
Progressive Telecommunications Corporation
Purepacket Communications of the South, Inc. (PurePacket)
Rhythms Link, Inc. (formerly ACI Corp.)
Savannah CLEC Network, Inc. d/b/a LineDrive Communications of Savannah
Signature Communications, Inc.
Southeastern Services, Inc.
Talk.com Holding Corp.
Telepak, Inc.
Telepak Networks, Inc.
Tele-Sys, Inc. d/b/a Access America Telephone Co.
The Basico Group, Inc.
The Other Phone Company, Inc. d/b/a Access One Communications, Inc.
TLX Communications, Inc. dba TelAmerica
TouchTone Communications, Inc.
TriComm, Inc.
UNICOM Communications, LLC
USA Digital, Inc.
VBI 2000, LLC
Virtel, Inc.
World Access Communications Corporation

REQUEST: Produce copies of all firm order confirmations and similar documents in which BellSouth authorizes the conversion of virtual collocation arrangements to physical collocation arrangements without requiring the relocation of the requesting carrier's virtually collocated equipment.

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. BellSouth further objects to this request for production on the grounds that it seeks the production of customer proprietary information which cannot be disclosed by BellSouth.

REQUEST: Produce any and all cost studies underlying BellSouth's charges for converting virtual collocation to physical collocation, including the physical collocation application fee.

RESPONSE: The requested cost studies have not been performed. However, BellSouth's current standard agreement states:

> ... CLEC may transition its virtual collocation arrangements to physical collocation arrangements and pay appropriate non-recurring fees for physical collocation and for the rearrangement or reconfiguration of services terminated in the virtual collocation arrangement.

The physical collocation fees that would apply are the same as would apply on a request for a new physical collocation arrangement, e.g., application fee, cable installation, cable support structure, floor space, space preparation, and cross connect fees. All of these charges are listed in the current agreement. Cost studies for the application fee, cable installation, cable support structure, floor space, and cross connect charges are pending before the authority in Docket No. 9701262. The rearrangement or reconfiguration non-recurring charges, which apply for the services and not for collocation arrangement, would be the applicable Tennessee or FCC Special Access Service Tariff charges for the services terminated into a collocation arrangement.

REQUEST: Produce any and all interconnection agreements between BellSouth and other telecommunications carriers which prohibit the carriers from assigning NPA/NXXs outside the BellSouth local calling area where the NPA/NXXs are homed.

RESPONSE: First, NPA/NXXs are assigned to established rate centers approved by state Commissions/Authorities, not to "local calling areas". The NPA/NXX network homing arrangements reflect the NPA/NXX rate center assignments. This is required for numerous reasons, three of which are: 1) telecommunication companies rate their originating traffic for end user billing based upon NPA/NXX rate center assignments as listed in the national Business Rating Input Data Base System (BRIDS), 2) efficient network utilization, and 3) Local Number Portability traffic routing purposes. To do otherwise will result in incorrect end user billing, inefficient use of the telecommunications network, and mis-routing of Local Number Portability traffic. Since there is no need to establish an agreement with other telecommunications carriers prohibiting the carriers from incorrectly homing their NPA/NXXs, no such agreements exist.

REQUEST: Produce a list of BellSouth's central offices in Tennessee and the amount of space available for collocation.

RESPONSE: BellSouth objects to this Request for Production on the grounds that it irrelevant to the issues in this case and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, BellSouth states that pursuant to the FCC's 706 rule, requestors must complete request forms and submit payments for each CO where information is requested. Thus, BellSouth is not obligated to produce such reports in this context.

REQUEST: Produce a list of BellSouth's central offices in Tennessee which either have no space available for collocation or are facing potential exhaust.

RESPONSE: BellSouth objects to this Request for Production on the grounds that it irrelevant to the issues in this case and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, BellSouth states that the Nashville-Brentwood central office (NSVLTNBW) and the Dickson central office (DKSNTNMT) have no space available for Physical Collocation and petitions for temporary waiver of physical collocation have been filed with the Tennessee Regulatory Authority (TRA). Due to the timing of planned space additions, equipment rearrangements and replacements and the unknown nature of future CLEC collocation request, BellSouth can not speculate on other offices that may face space exhaust.

REQUEST: Produce copies of building codes which BellSouth alleges affect space allocations.

RESPONSE: Chapter 10 of the *Standard Building Code*, published by the Southern Building Congress International, does not allow for the blocking of exit ways or reducing the width of exit ways.

REQUEST: Produce copies of any and all documents (e.g., regulations, judicial or regulatory decisions, etc.), other than building codes, which BellSouth alleges affect space allocations.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce copies of all collocation waivers filed by BellSouth in Tennessee.

RESPONSE: Copies of the Request for Temporary Waiver of Physical Collocation in the Nashville-Brentwood central office (NSVLTNBW) and the Dickson central office (DKSNTNMT) are attached.

BEFORE THE TENNESSEE REGULATORY AUTHORITY
Nashville, Tennessee

In Re: *Request for Temporary Waiver of Physical Collocation in the Dickson Central Office.*

Docket No. 00-00357

PETITION FOR TEMPORARY WAIVER

BellSouth Telecommunications, Inc. ("BellSouth"), files this Petition for Temporary Waiver in accordance with the Telecommunications Act of 1996 (the "Act") and applicable Federal Communications Commissions ("FCC") Orders[1] (The "Orders"). Pursuant to this authority, BellSouth requests an exemption from the physical collocation requirements set forth in the Act and in the Orders for the Dickson Central Office ("CO") located at 305 N. Charlotte Street, Dickson, Tennessee, 37055. BellSouth seeks this exemption from the Tennessee Regulatory Authority ("TRA") on the grounds that it is unable to meet the Applicant's physical collocation requests due to space limitations in the CO. BellSouth expects to construct an addition to the CO building, although BellSouth has no obligation to lease or construct additional space to provide physical collocation to interconnectors when existing space has been exhausted.

1. The Dickson CO building houses switches providing local dial tone. Circuit equipment also located in the CO includes fiber optic terminals, digital cross-connect systems, multiplexers, digital channel banks, subscriber carrier terminals, and digital cross connect panels. The circuit equipment provides connectivity to other CO's and local customers. Rectifiers and battery strings provide power to the above equipment.

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[1] 1996 Telecommunications Act, Section 251(c) (6); FCC's First Report and Order, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Released August 8, 1996, Paragraphs 602-607.

1. BellSouth determined the total square footage within the facility;

2. BellSouth determined the unavailable space (i.e., restrooms, hallways, stairs, etc.);

3. BellSouth determined assigned space currently occupied by the BellSouth switch, transmission, power and other equipment, as well as necessary administrative space;

4. BellSouth determined the space reserved for future defined uses necessary to adequately serve BellSouth customers, including consideration given to BellSouth's future switch growth plans;

5. BellSouth identified any unusable space (such as basements subject to flooding); and

6. BellSouth determined available collocation space by subtracting items 2-5 from item 1.

A. Current Space Allocation

1. Allocation of space:

The facility currently has a total of 5,084 square feet occupied as follows:

Square Footage	Description
Unavailable Space:	
895	Entrance lobby, Main Corridors, Hall spaces, inside stairways, fire towers, vertical shafts, restrooms, and all space necessary for building operation (i.e., HVAC mechanical rooms).
Occupied Space:	
1,124	Switching Systems
1,422	Transmission Equipment
361	Power Equipment
75	Collocation

300	Engine Rooms
210	Receiving
316	Storage
381	Administrative (limited to space necessary for personnel who work in the building)

TOTAL: 4,189

When totaled, the Unavailable Space and the Occupied Space equals 5,084, the square footage of the entire CO.

5. As previously stated, BellSouth's thorough assessment of the facility confirmed that there is no space available for additional physical collocation until the addition is completed. Attached hereto is the space assessment worksheet that details the procedure set forth above. (Exhibit 1). Also attached hereto as Exhibit 2 are floor plans of the CO which show the present and future use as well as a planning grid. One applicant toured the CO as evidenced by the sign-in sheet attached as Exhibit 3.[2] The other applicant declined the opportunity to tour the CO.

6. There is space reserved for defined future use for BellSouth which may be insufficient to meet the growing needs of its customers through the year 2000. The projects include incremental additions to the existing switching system, frame and transmission equipment. These projects will use the remaining space in the facility.

7. The Dickson CO contains no available space for physical collocation for the applicant and for this reason should be excluded from the collocation requirements. BellSouth will, of course, offer virtual collocation in the Dickson CO. Having demonstrated good cause for

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[2] The name of the applicant has been redacted to avoid publicly disclosing the identity of the applicant in this proceeding.

its requests, BellSouth asks that the TRA grant its petition for Waiver and exempt BellSouth from the obligation to offer physical collocation in the Dickson CO.

This 23rd day of May, 2000.

Respectfully submitted,

BELLSOUTH TELECOMMUNICATIONS, INC.

By:_____

Guy M. Hicks
333 Commerce Street, Suite 2101
Nashville, Tennessee 37201-3300
615/214-6301

R. Douglas Lackey
675 W. Peachtree Street NE, Suite 4300
Atlanta, Georgia 30375
404/335-0747

EXHIBIT 1

SPACE ASSESSMENT WORKSHEET

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

CLLI	DKSNTNMT									
ADDRESS	305 N. Charlotte St., Dickson, TN 37055									
FLOOR	**BSMNT**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
A. TOTAL GROSS SQ. FT.		**5,084**								
B. UNAVAILABLE SPACE		**895**								
Unavailable space is all non-assignable area and is comprised of entrance lobbies, main corridors, hall spaces, inside stairways, fire towers, vertical shafts, (light, vent, power, dumbwaiters, & elevators), all restrooms (except those associated with private offices) and all space necessary for building operation										
C. OCCUPIED SPACE										
Swiching Systems		1,124								
Transmission Equipment		1,422								
Power Equipment		361								
Collocation		75								
Engine Rooms		300								
Receiving		210								
Storage		316								
Administrative - occupied by employees performing work functions		381								
Other (specify)										

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

TOTAL OCCUPIED or UNAVAILABLE SPACE	0	4189	0	0	0	0	0	0	0	0
D. RESERVED SPACE										
Growth - max of 2 years growth space - See Note 1										
Switching Systems thru (date):										
Transmission Equipment thru (date):										
Power Equipment thru (date):										
Engine Rooms thru (date):										
Existing Collocation Orders										
Turnaround space for replacement of:										
Switch type: date:										
Switch type: date:										
Other reserved space: (See Note 1)										
Explanation Year:										
Explanation: Year:										
Explanation: Year:										
TOTAL VACANT SPACE RESERVED FOR FUTURE USE	0	0	0	0	0	0	0	0	0	0
E. UNUSABLE VACANT SPACE										
Unusable vacant space may exist due to flooding, no fire exit access, structural problems, building to be vacated*, etc. Explain each situation in detail.										
Explanation:										
Explanation:										
*If building is to be vacated provide CLLI of replacement facility										

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

TOTAL UNUSABLE VACANT SPACE	0	0	0	0	0	0	0	0	0	0
NET AVAILABLE SPACE	0	0	0	0	0	0	0	0	0	0
F. FUTURE AVAILABLE SPACE										
Completion of switch replacem't (date):										
Removal of retired equipment (date):										
Other (explain): (date):										
IF PHYSICAL SPACE IS UNAVAILABLE, VIRTUAL SHOULD BE OFFERED. (Explain in detail if Virtual Collocation Space is unavailable)										
Explanation:										
Form completed by: L. D. Osborne										
Telephone no: 615-214-5652										
Date:										
Approved:_____										
(PG59 Manager)										
Note:1 - Use Section D, Other Reserved Space, to address space reservation requirements beyond documented Current Year + 1 growth forecasts. Technical requirements associated with isolated ground planes, digital switch bus lengths,DF growth, etc. may require space reservation beyond the standard 2 year limit. Provide sufficient explanation to justify the reserved space.										

EXHIBIT 2

FLOOR PLANS

EXHIBIT 3

CO TOUR SIGN-IN SHEET

Memorandum For Record

On March 28,2000, Larry Osborne of BellSouth conducted a tour of the Dickson Central Office equipment building in Dickson, Tennessee.

Attendees

Name	Company & Title	Date
L D Osborne	Mgr. - CSCM - BST	3/28/00
L G. Dowdle	Network Manager BST	3/28/00
John H. Beckwith	" "	3/28/00

BEFORE THE TENNESSEE REGULATORY AUTHORITY
Nashville, Tennessee

In Re: *Request for Temporary Waiver of Physical Collocation in the Brentwood Central Office.*

Docket No. 00-00358

PETITION FOR TEMPORARY WAIVER

BellSouth Telecommunications, Inc. ("BellSouth"), files this Petition for Temporary Waiver in accordance with the Telecommunications Act of 1996 (the "Act") and applicable Federal Communications Commissions ("FCC") Orders[1] (the "Orders"). Pursuant to this authority, BellSouth requests an exemption from the physical collocation requirements set forth in the Act and in the Orders for the Brentwood Central Office ("CO") located at 102 High Lea Road, Brentwood, Tennessee, 37027. BellSouth seeks this exemption from the Tennessee Regulatory Authority ("TRA") on the grounds that it is unable to meet the Applicant's physical collocation request due to space limitations in the CO. BellSouth expects to construct an addition to the CO building, although BellSouth has no obligation to lease or construct additional space to provide physical collocation to interconnectors when existing space has been exhausted.

1. The Brentwood CO building houses switches providing local dial tone. Circuit equipment also located in the CO includes fiber optic terminals, digital cross-connect systems, multiplexers, digital channel banks, subscriber carrier terminals, and digital cross connect panels. The circuit equipment provides connectivity to other CO's and local customers. Rectifiers and battery strings provide power to the above equipment.

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[1] 1996 Telecommunications Act, Section 251(c) (6); FCC's First Report and Order, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Released August 8, 1996, Paragraphs 602-607.

BellSouth anticipates constructing an addition to the central office that will be used for future physical collocation as well as the growth of power, switch and circuit equipment. The estimated completion date of the addition is the end of the first quarter 2001.

2. Under the Act, Incumbent Local Exchange Companies ("ILECs") have the following obligation:

> The duty to provide, on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation if the local exchange carrier demonstrates to the State Commission that physical collocation is not practical for technical reasons or because of space limitations.

47 U.S. § 251(c)(b). Thus, an ILEC is required to provide collocation unless it is "not practical...because of space limitations." *Id.* The term "space limitations" encompasses two factors: first, ILECs are entitled to consider space already in use by the ILEC at the time the collocation request is made; second, ILECs are entitled to "retain a limited amount of floor space for defined future uses" (Order, ¶604). Without the latter element, competitive entrants "could prevent incumbent LECs from serving their customers effectively." *Id.*

3. Due to space limitations in the Brentwood CO, BellSouth is unable to provide physical collocation to additional competitive local exchange carriers ("CLECs"). There will be no room for additional physical collocation until the anticipated building addition is completed. The space limitations faced by BellSouth are the result of the use of space for existing BellSouth equipment, existing CLEC equipment, and the planned installation of additional equipment essential to the effective service of BellSouth customers.

4. In an effort to identify space currently available for physical collocation, BellSouth employed the following procedure:

1. BellSouth determined in the total square footage within the facility;

2. BellSouth determined the unavailable space (i.e., restrooms, hallways, stairs, etc.);

3. BellSouth determined assigned space currently occupied by the BellSouth switch, transmission, power and other equipment, as well as necessary administrative space;

4. BellSouth determined the space reserved for future defined uses necessary to adequately serve BellSouth customers, including consideration given to BellSouth's future switch growth plans;

5. BellSouth identified any unusable space (such as basements subject to flooding); and

6. BellSouth determined available collocation space by subtracting items 2-5 from item 1.

A. Current Space Allocation

1. Allocation of space:

The facility currently has a total of 13,535 square feet occupied as follows:

Square Footage	Description
Unavailable Space:	
3,497	Entrance lobby, Main Corridors, Hall spaces, inside stairways, fire towers, vertical shafts, restrooms, and all space necessary for building operation (i.e., HVAC mechanical rooms).
Occupied Space:	
2,560	Switching Systems
3,367	Transmission Equipment
1,470	Power Equipment
1,676	Collocation

404	Engine Rooms
193	Storage
368	Administrative (limited to space necessary for personnel who work in the building)

TOTAL: 10,038

When totaled, the Unavailable Space and the Occupied Space equals 13,535 the square footage of the entire CO.

5. As previously stated, BellSouth's thorough assessment of the facility confirmed that there is no space available for additional physical collocation until the addition is completed. Attached hereto is the space assessment worksheet that details the procedure set forth above. (Exhibit 1). Also attached hereto as Exhibit 2 are floor plans of the CO which show the present and future use as well as a planning grid. One applicant toured the CO as evidenced by the sign-in sheet attached as Exhibit 3.[2] The other applicant declined the opportunity to tour the CO.

6. There is space reserved for defined future use for BellSouth which may be insufficient to meet the growing needs of its customers through the year 2000. The projects include incremental additions to the existing switching system, frame and transmission equipment. These projects will use the remaining space in the facility.

7. The Brentwood CO contains no available space for physical collocation for the applicant and for this reason should be excluded from the collocation requirements. BellSouth will, of course, offer virtual collocation in the Brentwood CO. Having demonstrated good cause for its requests, BellSouth asks that the TRA grant its petition for Waiver and exempt BellSouth from the obligation to offer physical collocation in the Brentwood CO.

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[2] The name of the applicant has been redacted to avoid publicly disclosing the identity of the applicant in this proceeding.

This 23rd day of May, 2000.

Respectfully submitted,

BELLSOUTH TELECOMMUNICATIONS, INC.

By: _____

Guy M. Hicks
333 Commerce Street, Suite 2101
Nashville, Tennessee 37201-3300
615/214-6301

R. Douglas Lackey
675 W. Peachtree Street NE, Suite 4300
Atlanta, Georgia 30375
404/335-0747

EXHIBIT 1

SPACE ASSESSMENT WORKSHEET

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

CLLI	NSVLTNBW									
ADDRESS	102 High Lea Rd., Brentwood, TN 37027									
FLOOR	**BSMNT**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
A. TOTAL GROSS SQ. FT.		**13,535**								
B. UNAVAILABLE SPACE		**3,497**								
Unavailable space is all non-assignable area and is comprised of entrance lobbies, main corridors, hall spaces, inside stairways, fire towers, vertical shafts, (light, vent, power, dumbwaiters, & elevators), all restrooms (except those associated with private offices) and all space necessary for building operation										
C. OCCUPIED SPACE										
Swiching Systems		2,560								
Transmission Equipment		3,367								
Power Equipment		1,470								
Collocation		1,676								
Engine Rooms		404								
Receiving		0								
Storage		193								
Administrative - occupied by employees performing work functions		368								
Other (specify)										

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

TOTAL OCCUPIED or UNAVAILABLE SPACE	0	10038	0	0	0	0	0	0	0	0
D. RESERVED SPACE										
Growth - max of 2 years growth space - See Note 1										
Switching Systems thru (date):										
Transmission Equipment thru (date):										
Power Equipment thru (date):										
Engine Rooms thru (date):										
Existing Collocation Orders										
Turnaround space for replacement of:										
Switch type: date:										
Switch type: date:										
Other reserved space: (See Note 1)										
Explanation Year:										
Explanation: Year:										
Explanation: Year:										
TOTAL VACANT SPACE RESERVED FOR FUTURE USE	0	0	0	0	0	0	0	0	0	0
E. UNUSABLE VACANT SPACE										
Unusable vacant space may exist due to flooding, no fire exit access, structural problems, building to be vacated*, etc. Explain each situation in detail.										
Explanation:										
Explanation:										
*If building is to be vacated provide CLLI of replacement facility										

PHYSICAL COLLOCATION FLOOR SPACE WORKSHEET

Issue 1 3/98

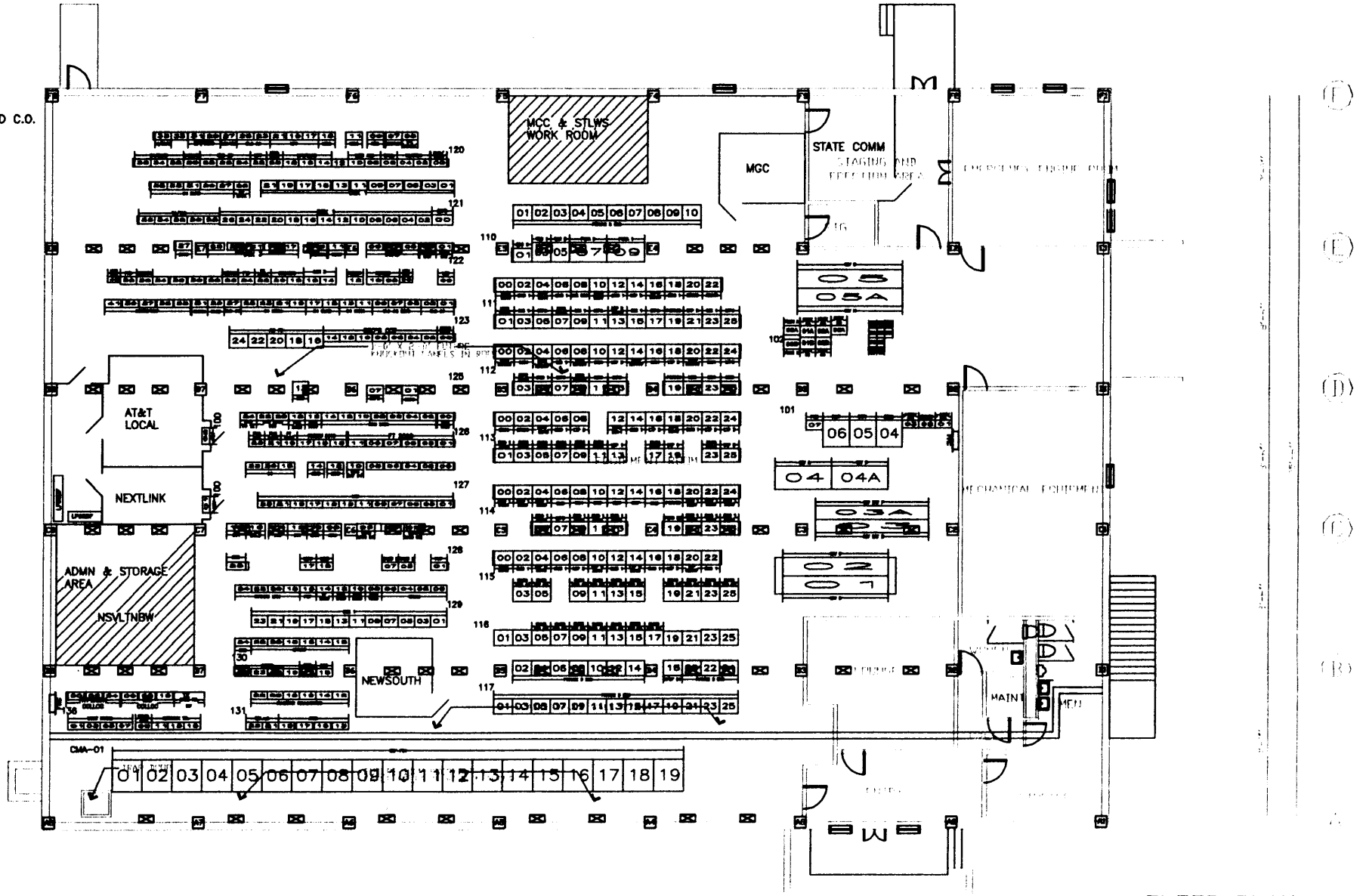
TOTAL UNUSABLE VACANT SPACE	0	0	0	0	0	0	0	0	0	0
NET AVAILABLE SPACE	0	0	0	0	0	0	0	0	0	0
F. FUTURE AVAILABLE SPACE										
Completion of switch replacem't (date):										
Removal of retired equipment (date):										
Other (explain): (date):										
IF PHYSICAL SPACE IS UNAVAILABLE, VIRTUAL SHOULD BE OFFERED. (Explain in detail if Virtual Collocation Space is unavailable)										
Explanation:										
Form completed by: L. D. Osborne										
Telephone no: 615-214-5652										
Date:										
Approved:_____ (PG59 Manager)										
Note:1 - Use Section D, Other Reserved Space, to address space reservation requirements beyond documented Current Year + 1 growth forecasts. Technical requirements associated with isolated ground planes, digital switch bus lengths,DF growth, etc. may require space reservation beyond the standard 2 year limit. Provide sufficient explanation to justify the reserved space.										

EXHIBIT 2

FLOOR PLANS

NASHVILE BRENTWOOD C.O.
8235801
LDO 06/15/99

LEGEND:
PRESENT
FUTURE
PLANNING GRID



FLOOR PLAN
SCALE: 1/8" = 1'-09845.00 sq. feet

EXHIBIT 3

CO TOUR SIGN-IN SHEET

Attachment 4

Physical Collocation

BELLSOUTH
PHYSICAL COLLOCATION

1. Scope of Attachment

1.1 Scope of Attachment. The rates, terms, and conditions contained within this Attachment shall only apply when CLEC-1 is occupying the collocation space as a sole occupant or as a Host within a Premises location pursuant to Section 4.

All the negotiated rates, terms and conditions set forth in this Attachment pertain to collocation and the provisioning of collocation space.

1.2 Right to occupy. BellSouth shall offer to CLEC-1 collocation on rates, terms, and conditions that are just, reasonable, non-discriminatory and consistent with the rules of the Federal Communications Commission ("FCC"). Subject to Section 4 of this Attachment, BellSouth hereby grants to CLEC-1 a right to occupy that certain area designated by BellSouth within a BellSouth Premises, of a size which is specified by CLEC-1 and agreed to by BellSouth (hereinafter "Collocation Space"). BellSouth Premises include BellSouth Central Offices and Serving Wire Centers, as well as all buildings or similar structures owned or leased by BellSouth that house BellSouth Network Facilities and all structures that house facilities on public rights-of-way, including but not limited to, vaults containing loop concentrators and other similar structures. To the extent this Agreement does not include all the necessary rates, terms and conditions for BellSouth Premises other than BellSouth Central Offices, the Parties will negotiate said rates, terms, and conditions at the request for collocation at other than a Central Office. Notwithstanding the foregoing, BellSouth shall consider in its designation for cageless collocation any unused space within the BellSouth Premises. The size specified by CLEC-1 may contemplate a request for space sufficient to accommodate CLEC-1's growth within a two year period unless otherwise agreed to by the Parties.

1.2.1 Space Reclamation. In the event of space exhaust within a central office premises, CLEC-1 may be required to release space to BellSouth to be allocated to other physical collocation applicants when a minimum of fifty percent of the total amount of space in CLEC-1's collocation arrangement is not being utilized within the first year of operation, or 100% of the total amount of space by the end of the second year of operation.

1.3 Use of Space. CLEC-1 shall use the Collocation Space for the purposes of installing, maintaining and operating CLEC-1's equipment (to include testing and monitoring equipment) used or useful primarily to interconnect with BellSouth services and facilities, including access to unbundled network elements, for the provision of telecommunications services. Pursuant to Section 5 following, CLEC-1 may at its option, place CLEC-1-owned fiber entrance facilities to the Collocation Space. In addition to, and not in lieu of, interconnection to BellSouth services and facilities,

CLEC-1 may connect to other interconnectors within the designated BellSouth Central Office (including to its other virtual or physical collocated arrangements) through co-carrier cross connect facilities designated by CLEC-1 pursuant to section 5.6 following. The Collocation Space may be used for no other purposes except as specifically described herein or authorized in writing by BellSouth.

1.4 Rates and charges. CLEC-1 agrees to pay the rates and charges identified at Exhibit A attached hereto.

2. Space Notification

2.1 Availability of Space. Upon submission of an application pursuant to Section 6, BellSouth will permit CLEC-1 to physically collocate, pursuant to the terms of this Attachment, at any BellSouth Premises, unless BellSouth has determined that there is no space available due to space limitations or no space available due to technical infeasibility. BellSouth will respond to an application within ten (10) business days as to whether space is available or not available within a BellSouth Premises.

2.2 Reporting. Upon request from CLEC-1, BellSouth will provide a written report specifying the amount of collocation space available at the Premises requested, the number of collocators present at the Premises, any modifications in the use of the space since the last report or the Premises requested and the measures BellSouth is taking to make additional space available for collocation arrangements.

2.2.1 The request from CLEC-1 must be written and must include the Premises and Common Language Location Identification (CLLI) code of the Premises. Such information regarding Premises and CLLI code is located in the National Exchange Carriers Association (NECA) Tariff FCC No. 4.

2.2.2 BellSouth will respond to a request for a particular Central Office location within ten (10) business days of receipt of such request. BellSouth will make best efforts to respond in ten (10) business days to such a request when the request includes up to and including five (5) Central Office locations within the same state. The response time for requests of more than five (5) shall be negotiated between the Parties. If BellSouth cannot meet the ten business day response time, BellSouth shall notify CLEC-1 and inform CLEC-1 of the time frame under which it can respond.

2.3 Denial of Application. After notifying CLEC-1 that BellSouth has no available space in the requested Central Office ("Denial of Application"), BellSouth will allow CLEC-1, upon request, to tour the entire Central Office within ten (10) business days of such Denial of Application. In order to schedule said tour within ten (10) business days, the request for a tour of the Central Office must be received by BellSouth within five (5) business days of the Denial of Application.

2.4 Filing of Petition for Waiver. Upon Denial of Application BellSouth will timely file a petition with the Commission pursuant to 47 U.S.C. § 251(c)(6).

2.5 Waiting List. On a first come first served basis, BellSouth will maintain a waiting list of requesting carriers who have either received a Denial of Application or, where it is publicly known that the Premises is out of space, have submitted a Letter of Intent to collocate. BellSouth will notify the telecommunications carriers on the waiting list when space becomes available according to how much space becomes available and the position of telecommunications carrier on said waiting list. Upon request BellSouth will advise CLEC-1 as to its position on the list.

2.6 Public Notification. BellSouth will maintain on its Interconnection Services website a notification document that will indicate all Premises that are without available space. BellSouth shall update such document within ten (10) business days of the Denial of Application date. BellSouth will also post a document on its Interconnection Services website that contains a general notice where space has become available in a Central Office previously on the space exhaust list. BellSouth shall allocate said available space pursuant to the waiting list referenced in Section 2.5.

2.7 State Agency Procedures. Notwithstanding the foregoing, should any state regulatory agency impose a procedure different than procedures set forth in this section, that procedure shall supersede the requirements set forth herein.

3. Collocation Options

3.1 Cageless. Except where local building code does not allow cageless collocation, BellSouth shall allow CLEC-1 to collocate CLEC-1's equipment and facilities without requiring the construction of a cage or similar structure and without requiring the creation of a separate entrance to the Collocation Space. BellSouth shall allow CLEC-1 to have direct access to its equipment and facilities but may require CLEC-1 to use a central entrance to the BellSouth Central Office. BellSouth shall make cageless collocation available in single bay increments pursuant to Section 7. Except where CLEC-1's equipment requires special technical considerations (e.g., special cable racking, isolated ground plane), BellSouth shall assign cageless Collocation Space in conventional equipment rack lineups where feasible. For equipment requiring special technical considerations, CLEC-1 must provide the equipment layout, including spatial dimensions for such equipment pursuant to generic requirements contained in BellCore (Telcordia) GR-63-Core and shall be responsible for constructing all special technical requirements associated with such equipment pursuant to Section 6.5 following.

3.2 Cages and Adjacent Arrangement Enclosures. BellSouth shall authorize the enclosure of CLEC-1's equipment and facilities at CLEC-1's option or if required by local building code. CLEC-1 must arrange with a BellSouth certified contractor to

construct a collocation arrangement enclosure in accordance with BellSouth's guidelines and specifications and at its sole expense. BellSouth will provide guidelines and specifications upon request. Where local building codes require enclosure specifications more stringent than BellSouth's standard enclosure specification, CLEC-1 and CLEC-1's BellSouth certified contractor must comply with local building code requirements. CLEC-1's BellSouth certified contractor shall be responsible for filing and receiving any and all necessary permits and/or licenses for such construction. The Certified Vendor shall bill CLEC-1 directly for all work performed for CLEC-1 pursuant to this Attachment and BellSouth shall have no liability for nor responsibility to pay such charges imposed by the Certified Vendor. CLEC-1 must provide the local BellSouth building contact with two Access Keys used to enter the locked enclosure. Except in case of emergency, BellSouth will not access CLEC-1's locked enclosure prior to notifying CLEC-1.

3.2.1 BellSouth has the right to review CLEC-1's plans and specifications prior to allowing construction to start. BellSouth has the right to inspect the enclosure after construction to make sure it is designed and constructed according to BellSouth's guidelines and specifications and to require CLEC-1 to remove or correct at CLEC-1's cost any structure that does not meet these standards.

3.3 Shared (Subleased) Caged Collocation. CLEC-1 may allow other telecommunications carriers to share CLEC-1's caged collocation arrangement pursuant to terms and conditions agreed to by CLEC-1 ("Host") and other telecommunications carriers ("Guests") and pursuant to this section with the following exceptions: (1) where local building code does not allow Shared (Subleased) Caged Collocation and (2) where the BellSouth Premises is located within a leased space and BellSouth is prohibited by said lease from offering such an option. CLEC-1 shall notify BellSouth in writing upon execution of any agreement between the Host and its Guest within ten (10) business days of its execution and prior to any Firm Order. Further, such notice shall include the name of the Guest(s) and ther term of the agreement, and shall contain a certification by CLEC-1 that said agreement imposes upon the Guest(s) the same terms and conditions for collocation space as set forth in this Agreement between BellSouh and CLEC-1.

3.3.1 CLEC-1 shall be the sole interface and responsible party to BellSouth for the purpose of submitting applications for initial and additional equipment placements of Guest; for assessment of rates and charges contained within this Attachment; and for the purposes of ensuring that the safety and security requirements of this Attachment are fully complied with by the Guest, its employees and agents. In the event the Host and Guest jointly submit an initial Application, only one Application Fee will be assessed. A separate initial Guest application shall require the assessment of a Subsequent Application Fee, as set forth in Exhibit A, if this application is not the initial application made for the arrangement. Notwithstanding the foregoing, Guest may arrange directly with BellSouth for the provision of the interconnecting facilities

between BellSouth and Guest and for the provisions of the services and access to unbundled network elements.

3.3.2 CLEC-1 shall indemnify and hold harmless BellSouth from any and all claims, actions, causes of action, of whatever kind or nature arising out of the presence of CLEC-1's Guests in the Collocation Space.

3.4 Adjacent Collocation. BellSouth will provide adjacent collocation arrangements ("Adjacent Arrangement") where space within the Central Office is legitimately exhausted, subject to technical feasibility, where the Adjacent Arrangement does not interfere with access to existing or planned structures or facilities on the Central Office property and where permitted by zoning and other applicable state and local regulations. The Adjacent Arrangement shall be constructed or procured by CLEC-1 and in conformance with BellSouth's design and construction specifications. Further, CLEC-1 shall construct, procure, maintain and operate said Adjacent Arrangement(s) pursuant to all of the terms and conditions set forth in this Attachment. Rates shall be negotiated at the time of the request for Adjacent Collocation.

3.4.1 Should CLEC-1 elect such option, CLEC-1 must arrange with a BellSouth certified contractor to construct an Adjacent Arrangement structure in accordance with BellSouth's guidelines and specifications. BellSouth will provide guidelines and specifications upon request. Where local building codes require enclosure specifications more stringent than BellSouth's standard specification, CLEC-1 and CLEC-1's contractor must comply with local building code requirements. CLEC-1's contractor shall be responsible for filing and receiving any and all necessary zoning, permits and/or licenses for such construction. CLEC-1's BellSouth Certified Vendor shall bill CLEC-1 directly for all work performed for CLEC-1 pursuant to this Attachment and BellSouth shall have no liability for nor responsibility to pay such charges imposed by the Certified Vendor. CLEC-1 must provide the local BellSouth building contact with two cards, keys or other access device used to enter the locked enclosure. Except in cases of emergency, BellSouth shall not access CLEC-1's locked enclosure prior to notifying CLEC-1.

3.4.2 BellSouth maintains the right to review CLEC-1's plans and specifications prior to construction of an Adjacent Arrangement(s). BellSouth may inspect the Adjacent Arrangement(s) following construction and prior to commencement, as defined in Section 4.1 following, to ensure the design and construction comply with BellSouth's guidelines and specifications. BellSouth may require CLEC-1, at CLEC-1's sole cost, to correct any deviations from BellSouth's guidelines and specifications found during such inspection(s), up to and including removal of the Adjacent Arrangement, within five (5) business days of BellSouth's inspection, unless the Parties mutually agree to an alternative time frame.

3.4.3 CLEC-1 shall provide a concrete pad, the structure housing the arrangement, HVAC, lighting, and all facilities that connect the structure (i.e. racking, conduits, etc.) to the

BellSouth point of interconnection. At CLEC-1's option, and where the local authority having jurisdiction permits, BellSouth shall provide an AC power source and access to physical collocation services and facilities subject to the same nondiscriminatory requirements as applicable to any other physical collocation arrangement. CLEC-1's contractor shall be responsible for filing and receiving any and all necessary zoning, permits and/or licenses for such arrangment.

3.4.4 BellSouth shall allow Shared (Subleased) Caged Collocation within an Adjacent Arrangement pursuant to the terms and conditions set forth in Section 3.3 preceeding.

4. Occupancy

4.1 Commencement Date. The "Commencement Date" shall be the day CLEC-1's equipment becomes operational as described in Article 4.2, following.

4.2 Occupancy. BellSouth will notify CLEC-1 in writing that the Collocation Space is ready for occupancy. CLEC-1 must place operational telecommunications equipment in the Collocation Space and connect with BellSouth's network within one hundred eighty (180) days after receipt of such notice. CLEC-1 must notify BellSouth in writing that collocation equipment installation is complete and is operational with BellSouth's network. BellSouth may, at its option, not accept orders for interconnected service until receipt of such notice. If CLEC-1 fails to place operational telecommunications equipment in the Collocation Space within 180 calendar days and such failure continues for a period of thirty (30) days after receipt of written notice from BellSouth, then and in that event CLEC-1's right to occupy the Collocation Space terminates and BellSouth shall have no further obligations to CLEC-1 with respect to said Collocation Space. Termination of CLEC-1's rights to the Collocation Space pursuant to this paragraph shall not operate to release CLEC-1 from its obligation to reimburse BellSouth for all costs reasonably incurred by BellSouth in preparing the Collocation Space, but rather such obligation shall survive this Attachment. For purposes of this paragraph, CLEC-1's telecommunications equipment will be deemed operational when cross-connected to BellSouth's network for the purpose of service provision.

4.3 Termination. Except where otherwise agreed to by the Parties, CLEC-1 may terminate occupancy in a particular Collocation Space upon thirty (30) days prior written notice to BellSouth. Upon termination of such occupancy, CLEC-1 at its expense shall remove its equipment and other property from the Collocation Space. CLEC-1 shall have thirty (30) days from the termination date to complete such removal, including the removal of all equipment and facilities of CLEC-1's Guests; provided, however, that CLEC-1 shall continue payment of monthly fees to BellSouth until such date as CLEC-1 has fully vacated the Collocation Space. Should CLEC-1 fail to vacate the Collocation Space within thirty (30) days from the termination date, BellSouth shall have the right to remove the equipment and other property of CLEC-1 at CLEC-1's expense and with no liability for damage or injury to CLEC-1's property

unless caused by the gross negligence or intentional misconduct of BellSouth. Upon expiration of this Attachment, CLEC-1 shall surrender the Collocation Space to BellSouth in the same condition as when first occupied by the CLEC-1 except for ordinary wear and tear. CLEC-1 shall be responsible for the cost of removing any enclosure, together with all support structures (e.g., racking, conduits), of an Adjacent Collocation arrangement at the termination of occupancy and restoring the grounds to their original condition.

5. Use of Collocation Space

5.1 Equipment Type. BellSouth permits the collocation of any type of equipment used or useful for interconnection to BellSouth's network or for access to unbundled network elements in the provision of telecommunications services. Such equipment used or useful for interconnection and access to unbundled network elements includes, but is not limited to transmission equipment including, but not limited to, optical terminating equipment and multiplexers, and digital subscriber line access multiplexers, routers, asynchronous transfer mode multiplexers, and remote switching modules. Nothing in this section requires BellSouth to permit collocation of equipment used solely to provide enhanced services; provided, however, that BellSouth may not place any limitations on the ability of requesting carriers to use all the features, functions, and capabilities of equipment collocated pursuant to this section.

5.1.1 Such equipment must at a minimum meet the following BellCore (Telcordia) Network Equipment Building Systems (NEBS) General Equipment Requirements: Criteria Level 1 requirements as outlined in the BellCore (Telcordia) Special Report SR-3580, Issue 1; equipment design spatial requirements per GR-63-CORE, Section 2; thermal heat dissipation per GR-063-CORE, Section 4, Criteria 77-79; acoustic noise per GR-063-CORE, Section 4, Criterion 128, and National Electric Code standards.

5.1.2 CLEC-1 shall not use the Collocation Space for marketing purposes nor shall it place any identifying signs or markings in the area surrounding the Collocation Space or on the grounds of the Premises.

5.1.3 CLEC-1 shall place a plaque or other identification affixed to CLEC-1's equipment necessary to identify CLEC-1's equipment, including a list of emergency contacts with telephone numbers.

5.2 Entrance Facilities. CLEC-1 may elect to place CLEC-1-owned or CLEC-1-leased fiber entrance facilities into the Collocation Space. BellSouth will designate the point of interconnection in close proximity to the Central Office building housing the Collocation Space, such as an entrance manhole or a cable vault which are physically accessible by both parties. CLEC-1 will provide and place fiber cable at the point of interconnection of sufficient length to be pulled through conduit and into the splice

location. CLEC-1 will provide and install a sufficient length of fire retardant riser cable, to which the entrance cable will be spliced, which will extend from the splice location to the CLEC-1's equipment in the Collocation Space. In the event CLEC-1 utilizes a non-metallic, riser-type entrance facility, a splice will not be required. CLEC-1 must contact BellSouth for instructions prior to placing the entrance facility cable in the manhole. CLEC-1 is responsible for maintenance of the entrance facilities At CLEC-1's option BellSouth will accommodate where technically feasible a microwave entrance facility pursuant to separately negotiated terms and conditions.

5.2.1 Dual Entrance. BellSouth will provide at least two interconnection points at each Premises where there are at least two such interconnection points available and where capacity exists. Upon receipt of a request for physical collocation under this Attachment, BellSouth shall provide CLEC-1 with information regarding BellSouth's capacity to accommodate dual entrance facilities. If conduit in the serving manhole(s) is available and is not reserved for another purpose for utilization within 12 months of the receipt of an application for collocation, BellSouth will make the requested conduit space available for installing a second entrance facility to CLEC-1's arrangement. The location of the serving manhole(s) will be determined at the sole discretion of BellSouth. Where dual entrance is not available due to lack of capacity, BellSouth will so state in the Application Response.

5.2.2 Shared Use. CLEC-1 may utilize spare capacity on an existing Interconnector entrance facility for the purpose of providing an entrance facility to another CLEC-1 collocation arrangement within the same BellSouth Central Office. CLEC-1 must arrange with BellSouth for BellSouth to splice the utilized entrance facility capacity to CLEC-1-provided riser cable.

5.3 Splicing in the Entrance Manhole. Although not generally permitted, should CLEC-1 request a splice to occur in the entrance manhole(s), BellSouth, at its sole discretion, may grant such a request, provided that BellSouth will not unreasonably withhold approval of requests to make such a splice. When the request for a splice is granted to CLEC-1 by BellSouth, CLEC-1 shall ensure its employees or agents entering and/or performing work in the entrance manhole(s) are trained and comply with BellSouth procedures and OSHA requirements regarding access to manholes and that BellSouth personnel are notified and present for all entrances and work performed in the entrance manhole(s). Manhole covers shall be properly closed and secured at the conclusion of entry and/or work. Advance notification to BellSouth shall occur at a minimum of 48 hours prior to desired entry for normal work activities and at a minimum of 2 hours prior to desired entry in an out of service condition.

5.4 Demarcation Point. BellSouth will designate the point(s) of interconnection between CLEC-1's equipment and/or network and BellSouth's network. Each party will be responsible for maintenance and operation of all equipment/facilities on its side of the demarcation point. For 2-wire and 4-wire connections to BellSouth's network, the demarcation point shall be a common block on the BellSouth designated conventional

distributing frame. CLEC-1 shall be responsible for providing, and CLEC-1's BellSouth Certified Vendor shall be responsible for installing and properly labeling/stenciling, the common block, and necessary cabling pursuant to Section 6.4. For all other terminations BellSouth shall designate a demarcation point on a per arrangement basis. CLEC-1 or its agent must perform all required maintenance to equipment/facilities on its side of the demarcation point, pursuant to subsection 5.5, following, and may self-provision cross-connects that may be required within the collocation space to activate service requests. At CLEC-1's option and expense, a Point of Termination (POT) bay or frame may be placed in the Collocation Space, but will not serve as the demarcation point. CLEC-1 must make arrangements with a BellSouth certified vendor for such placement.

5.5 CLEC-1's Equipment and Facilities. CLEC-1, or if required by this Attachment, CLEC-1's BellSouth certified vendor, is solely responsible for the design, engineering, installation, testing, provisioning, performance, monitoring, maintenance and repair of the equipment and facilities used by CLEC-1. Such equipment and facilities may include but are not limited to cable(s); equipment; and point of termination connections.

5.6 Co-Carrier Cross-connect. In addition to, and not in lieu of, obtaining interconnection with, or access to, BellSouth telecommunications services, unbundled network elements, and facilities, CLEC-1 may directly connect to other Interconnectors within the designated BellSouth Central Office (including to its other virtual or physical collocated arrangements) through facilities owned by CLEC-1 or through BellSouth facilities designated by CLEC-1, at CLEC-1's option. Such connections to other carriers may be made using either optical or electrical facilities. CLEC-1 may deploy such optical or electrical connections directly between its own facilities and the facilities of other Interconnector(s) without being routed through BellSouth equipment.

5.6.1 If CLEC-1 requests a co-Carrier cross-connect after the initial installation, CLEC-1 must submit an application with a Subsequent Application Fee. CLEC-1 must use a Certified Vendor to place the co-Carrier cross connect, except in cases where the CLEC-1 equipment and the equipment of the other Interconnector are located within contiguous collocation spaces. In cases where CLEC-1's equipment and the equipment of the other Interconnector are located in contiguous collocation spaces, CLEC-1 will have the option to deploy the co-Carrier cross connects between the sets of equipment. Where cable support structure exists for such connection, there will be a recurring charge per linear foot of support structure used. When cable support structures do not exist and must be constructed a pro-rated non-recurring charge for the individual case will be assessed to all that benefit from that construction.

5.7 Easement Space. From time to time BellSouth may require access to the Collocation Space. BellSouth retains the right to access such space for the purpose of making BellSouth equipment and building modifications (e.g., running, altering or removing

racking, ducts, electrical wiring, HVAC, and cables). BellSouth will give reasonable notice to CLEC-1 when access to the Collocation Space is required. CLEC-1 may elect to be present whenever BellSouth performs work in the Collocation Space. The Parties agree that CLEC-1 will not bear any of the expense associated with this work.

5.8 Access. Pursuant to Section 11, CLEC-1 shall have access to the Collocation Space twenty-four (24) hours a day, seven (7) days a week. CLEC-1 agrees to provide the name and social security number ordate of birth or driver's license number of each employee, contractor, or agents provided with Access Keys or cards ("Access Keys") prior to the issuance of said Access Keys. Access Keys shall not be duplicated under any circumstances. CLEC-1 agrees to be responsible for all Access Keys and for the return of all said Access Keys in the possession of CLEC-1 employees, contractors, Guests, or agents after termination of the employment relationship, contractual obligation with CLEC-1 or upon the termination of this Attachment or the termination of occupancy of an individual collocation arrangement.

5.8.1 Lost or Stolen Access Keys. CLEC-1 shall notify BellSouth in writing immediately in the case of lost or stolen Access Keys. Should it become necessary for BellSouth to re-key buildings as a result of a lost Access Key(s) or for failure to return an Access Key(s), CLEC-1 shall pay for all reasonable costs associated with the re-keying.

5.9 Interference or Impairment. Notwithstanding any other provisions of this Attachment, equipment and facilities placed in the Collocation Space shall not interfere with or impair service provided by BellSouth or by any other Interconnector located in the Central Office; shall not endanger or damage the facilities of BellSouth or of any other Interconnector, the Collocation Space, or the Central Office; shall not compromise the privacy of any communications carried in, from, or through the Central Office; and shall not create an unreasonable risk of injury or death to any individual or to the public. If BellSouth reasonably determines that any equipment or facilities of CLEC-1 violates the provisions of this paragraph, BellSouth shall give written notice to CLEC-1, which notice shall direct CLEC-1 to cure the violation within forty-eight (48) hours of CLEC-1's actual receipt of written notice or, at a minimum, to commence curative measures within 24 hours and to exercise reasonable diligence to complete such measures as soon as possible thereafter. After receipt of the notice, the parties agree to consult immediately and, if necessary, to inspect the arrangement. If CLEC-1 fails to take curative action within 48 hours or if the violation is of a character which poses an immediate and substantial threat of damage to property, injury or death to any person, or interference/impairment of the services provided by BellSouth or any other interconnector, then and only in that event BellSouth may take such action as it deems appropriate to correct the violation, including without limitation the interruption of electrical power to CLEC-1's equipment. BellSouth will endeavor, but is not required, to provide notice to CLEC-1 prior to taking such action and shall have no liability to CLEC-1 for any damages arising from such action, except to the extent that such action by BellSouth constitutes willful misconduct.

5.10 Personalty and its Removal. Subject to requirements of this Attachment, CLEC-1 may place or install in or on the Collocation Space such facilities and equipment, including storage for and spare equipment, as it deems desirable for the conduct of business; Provided that such equipment is telecommunications equipment, does not violate floor loading requirements, imposes or could impose or contains or could contain environmental conditions or hazards. Personal property, facilities and equipment placed by CLEC-1 in the Collocation Space shall not become a part of the Collocation Space, even if nailed, screwed or otherwise fastened to the Collocation Space, but shall retain their status as personalty and may be removed by CLEC-1 at any time. Any damage caused to the Collocation Space by CLEC-1's employees, agents or representatives during the removal of such property shall be promptly repaired by CLEC-1 at its expense.

5.11 Alterations. In no case shall CLEC-1 or any person acting on behalf of CLEC-1 make any rearrangement, modification, improvement, addition, repair, or other alteration to the Collocation Space or the BellSouth Central Office without the written consent of BellSouth, which consent shall not be unreasonably withheld. The cost of any such specialized alterations shall be paid by CLEC-1.

5.12 Janitorial Service. CLEC-1 shall be responsible for the general upkeep and cleaning of the Caged Collocation Space and shall arrange directly with a BellSouth certified contractor for janitorial services. BellSouth shall provide a list of such contractors on a site-specific basis upon request.

6. Ordering and Preparation of Collocation Space

6.1 Application for Space. CLEC-1 shall submit an application document when CLEC-1 or CLEC-1's Guest(s), as defined in Section 3.3, desires to request or modify the use of the Collocation Space.

6.1.1 Initial Application. For CLEC-1 or CLEC-1's Guest(s) initial equipment placement, CLEC-1 shall submit to BellSouth a complete and accurate Physical Expanded Interconnection Application Document(Bona Fide Application), together with payment of the Application Fee as stated in Exhibit A. The Bona Fide Application shall contain a detailed description and schematic drawing of the equipment to be placed in CLEC-1's Collocation Space(s) and an estimate of the amount of square footage required.

6.1.2 Subsequent Application Fee. In the event CLEC-1 or CLEC-1's Guest(s) desire to modify the use of the Collocation Space, CLEC-1 shall complete an Application document detailing all information regarding the modification to the Collocation Space together with payment of the minimum Subsequent Application Fee as stated in Exhibit A. Said minimum Subsequent Application Fee shall be considered a partial payment of the applicable Subsequent Application Fee which shall be calculated as

set forth below. BellSouth shall determine what modifications, if any, to the Premises are required to accommodate the change requested by CLEC-1 in the Application. Such necessary modifications to the Premises may include but are not limited to, floor loading changes, changes necessary to meet HVAC requirements, changes to power plant requirements, and equipment additions. The fee paid by CLEC-1 for its request to modify the use of the Collocation Space shall be dependent upon the level of assessment needed for the modification requested. Where the subsequent application does not require assessment for provisioning or construction work by BellSouth, no Subsequent Application Fee will be required and the pre-paid fee shall be refunded to CLEC-1. The fee for an application where the modification requested has limited effect (e.g., does not require assessment related to capital expenditure by BellSouth) shall be the Subsequent Application Fee as set forth in Exhibit A. If the modification requires capital expenditure assessment, a fee ranging from the minimum Subsequent Application Fee up to the full Application Fee Charge for the appropriate state shall apply. In the event such modifications require the assessment of a full Application Fee as set forth in Exhibit A, the outstanding balance shall be due by CLEC-1 within 30 calendar days following CLEC-1's receipt of a bill or invoice from BellSouth.

6.2 Application Response. In addition to the notice of space availability pursuant to Section 2.1, BellSouth will respond within ten (10) business days of receipt of an Application whether the Application is Bona Fide, and if it is not Bona Fide, the items necessary to cause the Application to become Bona Fide. When space has been determined to be available, BellSouth will provide a comprehensive written response within thirty (30) business days of receipt of a complete application. When multiple applications are submitted within a fifteen business day window, BellSouth will respond to the applications as soon as possible, but no later than the following: within thirty (30) business days for applications 1-5; within thirty-six (36) business days for applications 6-10; within forty-two (42) business days for applications 11-15. Response intervals for multiple applications submitted within the same timeframe for the same state in excess of 15 must be negotiated. All negotiations shall consider the total volume from all requests from telecommunications companies for collocation. The Application Response will detail whether the amount of space requested is available or if the amount of space requested is not available, the amount of space that is available. The response will also include the configuration of the space.6.3 Bona Fide Firm Order. CLEC-1 shall indicate its intent to proceed with equipment installation in a BellSouth Central Office by submitting a Bona Fide Firm Order to BellSouth. A Bona Fide Firm Order requires CLEC-1 to complete the Application/Inquiry process described in Subsection 6.1, preceding, and submit the Physical Expanded Interconnection Firm Order document (BSTEI-1P-F) indicating acceptance of the written application response provided by BellSouth ("Bona Fide Firm Order") and all appropriate fees. The Bona Fide Firm Order must be received by BellSouth no later than thirty (30) calendar days after BellSouth's response to CLEC-1's Application/Inquiry. If CLEC-1 makes changes to its application in light of BellSouth's written Application Response, BellSouth will be required to re-

evaluate and respond to the change(s). In this event, BellSouth's provisioning interval will not start until the re-evaluation and response to the change(s) is complete and the Bona Fide Firm Order is received by BellSouth and all appropriate fees and duties have been executed. If BellSouth needs to reevaluate CLEC-1's application as a result of changes requested by CLEC-1 to CLEC-1's original application, then BellSouth will charge CLEC-1 a fee based upon the additional engineering hours required to do the reassessment. Major changes such as requesting additional space or adding additional equipment may require CLEC-1 to resubmit the application with an application fee.

6.3.1 BellSouth will establish a firm order date, per request, based upon the date BellSouth is in receipt of a Bona Fide Firm Order. BellSouth will acknowledge the receipt of CLEC-1's Bona Fide Firm Order within five (5) business days of receipt indicating that the Bona Fide Firm Order has been received. A BellSouth response to a Bona Fide Firm Order will include a Firm Order Confirmation containing the firm order date.

6.3.2 BellSouth will permit one accompanied site visit to CLEC-1's designated collocation arrangement location after receipt of the Bona Fide Firm Order without charge to CLEC-1.

6.3.3 Space preparation for the Collocation Space will not begin until BellSouth receives the Bona Fide Firm Order and all applicable fees.

6.3.4 CLEC-1 must submit to BellSouth the completed Access Control Request Form (RF-2906-C) for all employees or agents requiring access to the BellSouth Central Office a minimum of 30 calendar days prior to the date CLEC-1 desires access to the Collocation Space.

6.4 Construction and Provisioning Interval. BellSouth will negotiate construction and provisioning intervals per request on an individual case basis. Excluding the time interval required to secure the appropriate government licenses and permits, BellSouth will use best efforts to complete construction for collocation arrangements under ordinary conditions as soon as possible and within a maximum of 90 business days from receipt of a complete and accurate Bona Fide Firm Order. Ordinary conditions are defined as space available with only minor changes to support systems required, such as but not limited to, HVAC, cabling and the power plant(s). Excluding the time interval required to secure the appropriate government licenses and permits, BellSouth will use best efforts to complete construction of all other collocation space ("extraordinary conditions") within 130 business days of the receipt of a complete and accurate Bona Fide Firm Order. Extraordinary conditions are defined to include but are not limited to major BellSouth equipment rearrangement or addition; power plant addition or upgrade; major mechanical addition or upgrade; major upgrade for ADA compliance; environmental hazard or hazardous materials abatement.

6.4.1 Joint Planning Meeting. Unless otherwise agreed to by the Parties, a joint planning meeting or other method of joint planning between BellSouth and CLEC-1 will commence within a maximum of 15 business days from BellSouth's receipt of a Bona Fide Firm Order and the payment of agreed upon fees. At such meeting, the Parties will agree to the preliminary design of the Collocation Space and the equipment configuration requirements as reflected in the Application and affirmed in the Bona Fide Firm Order. The Collocation Space Completion time period will be provided to CLEC-1 during the joint planning meeting or as soon as possible thereafter. BellSouth will complete all design work following the joint planning meeting.

6.4.2 Permits. Each Party or its agents will diligently pursue filing for the permits required for the scope of work to be performed by that Party or its agents within 7 business days of the completion of finalized construction designs and specifications.

6.4.3 Acceptance Walk Through. CLEC-1 and BellSouth will complete an acceptance walk through of each Collocation Space requested from BellSouth by CLEC-1. BellSouth will correct any deviations to CLEC-1's original or jointly amended requirements within five (5) business days after the walk through, unless the Parties jointly agree upon a different time frame.

6.5 Use of Certified Vendor. CLEC-1 shall select a vendor which has been approved as a BellSouth Certified Vendor to perform all engineering and installation work required in the Collocation Space. In some cases, CLEC-1 must select separate BellSouth Certified Vendors for transmission equipment, switching equipment and power equipment. BellSouth shall provide CLEC-1 with a list of Certified Vendors upon request. The Certified Vendor(s) shall be responsible for installing CLEC-1's equipment and components, installing co-carrier cross connects, extending power cabling to the BellSouth power distribution frame, performing operational tests after installation is complete, and notifying BellSouth's equipment engineers and CLEC-1 upon successful completion of installation. The Certified Vendor shall bill CLEC-1 directly for all work performed for CLEC-1 pursuant to this Attachment and BellSouth shall have no liability for nor responsibility to pay such charges imposed by the Certified Vendor. BellSouth shall consider certifying CLEC-1 or any vendor proposed by CLEC-1.

6.6 Alarm and Monitoring. BellSouth shall place environmental alarms in the Central Office for the protection of BellSouth equipment and facilities. CLEC-1 shall be responsible for placement, monitoring and removal of environmental and equipment alarms used to service CLEC-1's Collocation Space. Upon request, BellSouth will provide CLEC-1 with applicable tariffed service(s) to facilitate remote monitoring of collocated equipment by CLEC-1. Both parties shall use best efforts to notify the other of any verified environmental hazard known to that party. The parties agree to utilize and adhere to the Environmental Hazard Guidelines identified as Exhibit B attached hereto.

6.7 Basic Telephone Service. Upon request of CLEC-1, BellSouth will provide basic telephone service to the Collocation Space under the rates, terms and conditions of the current tariff offering for the service requested.

6.8 Space Preparation. BellSouth shall pro rate the costs of any renovation or upgrade to Central Office space or support mechanisms which is required to accommodate physical collocation. CLEC-1's pro rated share will be calculated by multiplying such cost by a percentage equal to the amount of square footage occupied by CLEC-1 divided by the total Central Office square footage receiving renovation or upgrade. For this section, support mechanisms provided by BellSouth may include, but not be limited to heating/ventilation/air conditioning (HVAC) equipment, HVAC duct work, cable support structure, fire wall(s), mechanical upgrade, asbestos abatement, or ground plane addition. Such renovation or upgrade will be evaluated and the charges assessed on a per Central Office basis. BellSouth will reimburse CLEC-1 in an amount equal to CLEC-1 reasonable, demonstrative and mitigated expenditures incurred as a direct result of delays to the completion and turnover dates caused by BellSouth.

6.9 Virtual Collocation Transition. BellSouth offers Virtual Collocation pursuant to the rates, terms and conditions set forth in its F.C.C. Tariff No. 1. For the interconnection to BellSouth's network and access to BellSouth unbundled network elements, CLEC-1 may purchase 2-wire and 4-wire Cross-Connects as set forth in Exhibit A, and CLEC-1 may place within its Virtual Collocation arrangements the telecommunications equipment set forth in Section 5.1. In the event physical collocation space was previously denied at a location due to technical reasons or space limitations, and that physical collocation space has subsequently become available, CLEC-1 may transition its virtual collocation arrangements to physical collocation arrangements and pay the appropriate non-recurring fees for physical collocation and for the rearrangement or reconfiguration of services terminated in the virtual collocation arrangement. In the event that BellSouth knows when additional space for physical collocation may become available at the location requested by CLEC-1, such information will be provided to CLEC-1 in BellSouth's written denial of physical collocation. To the extent that (i) physical collocation space becomes available to CLEC-1 within 180 days of BellSouth's written denial of CLEC-1's request for physical collocation, and (ii) CLEC-1 was not informed in the written denial that physical collocation space would become available within such 180 days, then CLEC-1 may transition its virtual collocation arrangement to a physical collocation arrangement and will receive a credit for any nonrecurring charges previously paid for such virtual collocation credit for any CLEC-1 must arrange with a BellSouth certified vendor for the relocation of equipment from its virtual collocation space to its physical collocation space and will bear the cost of such relocation.

6.10 Cancellation. If, at anytime, CLEC-1 cancels its order for the Collocation Space(s), CLEC-1 will reimburse BellSouth for any expenses incurred up to the date that written notice of the cancellation is received. In no event will the level of reimbursement under this paragraph exceed the maximum amount CLEC-1 would have otherwise paid for work undertaken by BellSouth if no cancellation of the order had occurred.

6.11 Licenses. CLEC-1, at its own expense, will be solely responsible for obtaining from governmental authorities, and any other appropriate agency, entity, or person, all rights, privileges, and licenses necessary or required to operate as a provider of telecommunications services to the public or to occupy the Collocation Space.

7. Rates and Charges

7.1 Non-recurring Fees. In addition to the Application Fee referenced in Section 6, preceding, CLEC-1 shall remit payment of a Cable Installation Fee and one-half (1/2) of the estimated Space Preparation Fee, as applicable, coincident with submission of a Bona Fide Firm Order. The outstanding balance of the actual Space Preparation Fee shall be due thirty (30) calendar days following CLEC-1's receipt of a bill or invoice from BellSouth. Once the installation of the initial equipment arrangement is complete, a subsequent application fee may apply (as described in Subsection 7.4, when CLEC-1 requests a modification to the arrangement.

7.2 Documentation. BellSouth shall provide documentation to establish the actual Space Preparation Fee. The Space Preparation Fee will be pro rated as prescribed in Section 6, preceding.

7.3 Cable Installation. Cable Installation Fee(s) are assessed per entrance fiber placed.

7.4 Floor Space. The floor space charge includes reasonable charges for lighting, heat, air conditioning, ventilation and other allocated expenses associated with maintenance of the Central Office but does not include amperage necessary to power CLEC-1's equipment. When the Collocation Space is enclosed , CLEC-1 shall pay floor space charges based upon the number of square feet so enclosed. When the Collocation Space is not enclosed, CLEC-1 shall pay floor space charges based upon the following floor space calculation: [(depth of the equipment lineup in which the rack is placed) + (0.5 x maintenance aisle depth) + (0.5 x wiring aisle depth)] X (width of rack and spacers). For purposes of this calculation, the depth of the equipment lineup shall consider the footprint of equipment racks plus any equipment overhang. BellSouth will assign unenclosed Collocation Space in conventional equipment rack lineups where feasible. In the event CLEC-1's collocated equipment requires special cable racking, isolated grounding or other treatment which prevents placement within conventional equipment rack lineups, CLEC-1 shall be required to request an amount of floor space sufficient to accommodate the total equipment arrangement. Floor space charges are due beginning with the date on which BellSouth releases the

Collocation Space for occupancy or on the date CLEC-1 first occupies the Collocation Space, whichever is sooner.

7.5 Power. BellSouth shall supply –48 Volt (-48V) DC power for CLEC-1's Collocation Space within the Premises and shall make available AC power at CLEC-1's option for Adjacent Arrangement collocation.

7.5.1 Recurring charges for -48V DC power will be assessed per ampere per month based upon the certified vendor engineered and installed power feed fused ampere capacity. Rates include redundant feeder fuse positions (A&B) and cable rack to CLEC-1's equipment or space enclosure. When obtaining power from a BellSouth Battery Distribution Fuse Bay, fuses and power cables (A&B) must be engineered (sized), and installed by CLEC-1's certified vendor. When obtaining power from a BellSouth Power Board, power cables (A&B) must be engineered (sized), and installed by CLEC-1's certified power vendor. CLEC-1's certified vendor must also provide a copy of the engineering power specification prior to the Commencement Date. The non-recurring construction charge for construction of additional DC power plant or upgrade of the existing DC power plant in a Central Office as a result of CLEC-1's request to collocate in that Central Office ("Power Plant Construction"), will be assessed per the nominal –48V DC ampere requirements specified by CLEC-1 on the physical collocation application. BellSouth reserves the right to monitor actual usage to verify accuracy of CLEC-1's power requirements. CLEC-1 shall pay its pro-rata share of costs associated with the Power Plant Construction, including but not limited to, standby AC plant elements, DC power plant elements, and the Battery Distribution Fuse Bay (BDFB), where applicable. If CLEC-1 does not require power feeders from a BDFB, the BDFB component will not be applied to the power plant construction charge. If CLEC-1 requires power feeders from both a BellSouth power board and a BellSouth BDFB, the power plant construction charge will include all three components for the amount of nominal current fed from the BDFB, but will only include the standby AC and DC power plant components for the amount of nminal current fed from the power board. BellSouth shall comply with all BellCore (Telcordia) and ANSI Standards regarding power cabling, including BellCore (Telcordia) Network Equipment Building System (NEBS) StandardGR-63-CORE. The costs of power plant construction shall be pro-rated and shared among all who benefit from that construction. CLEC-1 shall pay BellSouth one-half of its prorata share of the estimated Power Plant Construction costs prior to commencement of the work. CLEC-1 shall pay BellSouth the balance due (actual cost less one-half of the estimated cost) within thirty (30) days of completion of the Power Plant Construction. If BellSouth has not previously invested in power plan capacity for collocation at a specific site, CLEC-1 has the option to perform the Power Plant Construction itself; provided, however, that such work shall be performed by a BellSouth certified contractor and such contractor shall comply with BellSouth's guidelines and specifications. Where the Power Plant Construction results in construction of a new power plant room, upon termination of this Attachment CLEC-1 shall have the right to remove its equipment from the power plant room, but shall otherwise leave the

room intact. Where the Power Plant Construction results in an upgrade to BellSouth's existing power plant, upon termination of this Attachment, such upgrades shall become the property of BellSouth. CLEC-1 is responsible for contracting with a BellSouth certified vendor for power distribution feeder cable runs from a BellSouth BDFB or power board to CLEC-1's equipment. When obtaining power from a BellSouth BDFB or miscellaneous fuse positions on a BellSouth power board, power cables must be engineered, furnieshed and installed by CLEC-1 using a BellSouth certified power vendor. Determination of the BellSouth BDFB or BellSouth power board as the power source will be made at BellSouth's sole, but reasonable, discretion. The certified vendor contracted by CLEC-1 must provide BellSouth a copy of the engineering power specifications prior to the Commencement Date. BellSouth will provide the power feeder cable support structure between the BellSouth BDFB or power board and CLEC-1's arrangement area. CLEC-1 shall contract a BellSouth certified vendor who will be responsible for the following: power cable support structure within CLEC-1's arrangement; power cable feeds; terminations of cable. Any terminations at a BellSouth power board must be performed by a certified power vendor. CLEC-1 shall comply with all applicable National Electric Code (NEC), BellSouth TR-73503, BellCore (Telcordia) and ANSI Standards regarding power cabling.

7.5.2 Charges for AC power will be assessed per breaker ampere per month based upon the certified vendor engineered and installed power feed fused ampere capacity. Rates include the provision of commercial and standby AC power. When obtaining power from a BellSouth Service Panel, fuses and power cables must be engineered (sized), and installed by CLEC-1's certified vendor. CLEC-1's certified vendor must also provide a copy of the engineering power specification prior to the Commencement Date. Charges for AC power shall be assessed pursuant to the rates specified in Exhibit A. AC power voltage and phase ratings shall be determined on a per location basis.

7.6 Security Escort. A security escort will be required whenever CLEC-1 or its approved agent desires access to the entrance manhole or must have access to the Premises after the one accompanied site visit allowed pursuant to subsection 6.3.2 prior to completing BellSouth's Security Training requirements and/or prior to Space Acceptance. Rates for a security escort are assessed in one-half (1/2) hour increments according to the schedule appended hereto as Exhibit A.

7.7 Rate "True-Up." The Parties agree that the prices reflected as interim herein shall be "trued-up" (up or down) based on final prices either determined by further agreement or by final order, including any appeals, in a proceeding involving BellSouth before the regulatory authority for the state in which the services are being performed or any other body having jurisdiction over this agreement (hereinafter "Commission"). Under the "true-up" process, the interim price for each service shall be multiplied by the volume of that service purchased to arrive at the total interim amount paid for that service ("Total Interim Price"). The final price for that service shall be multiplied by

the volume purchased to arrive at the total final amount due ("Total Final Price"). The Total Interim Price shall be compared with the Total Final Price. If the Total Final Price is more than the Total Interim Price, CLEC-1 shall pay the difference to BellSouth. If the Total Final Price is less than the Total Interim Price, BellSouth shall pay the difference to CLEC-1. Each party shall keep its own records upon which a "true-up" can be based and any final payment from one party to the other shall be in an amount agreed upon by the Parties based on such records. In the event of any disagreement as between the records or the Parties regarding the amount of such "true-up," the Parties agree that the Commission shall be called upon to resolve such differences.

7.8 Other. If no rate is identified in the contract, the rate for the specific service or function will be negotiated by the parties upon request by either party. Payment of all other charges under this Attachment shall be due thirty (30) days after receipt of the bill (payment due date). CLEC-1 will pay a late payment charge of one and one-half percent (1-1/2%) assessed monthly on any balance which remains unpaid after the payment due date.

8. Insurance

8.1 CLEC-1 shall, at its sole cost and expense, procure, maintain, and keep in force insurance as specified in this Article VI and underwritten by insurance companies licensed to do business in the states applicable under this Attachment and having a BEST Insurance Rating of B ++ X (B ++ ten).

8.2 CLEC-1 shall maintain the following specific coverage:

8.2.1 Commercial General Liability coverage in the amount of ten million dollars ($10,000,000.00) or a combination of Commercial General Liability and Excess/Umbrella coverage totaling not less than ten million dollars ($10,000,000.00). BellSouth shall be named as an ADDITIONAL INSURED on ALL applicable policies as specified herein.

8.2.2 Statutory Workers Compensation coverage and Employers Liability coverage in the amount of one hundred thousand dollars ($100,000.00) each accident, one hundred thousand dollars ($100,000.00) each employee by disease, and five hundred thousand dollars ($500,000.00) policy limit by disease.

8.2.3 CLEC-1 may elect to purchase business interruption and contingent business interruption insurance, having been advised that BellSouth assumes no liability for loss of profit or revenues should an interruption of service occur.

8.3 The limits set forth in Subsection 8.2 above may be increased by BellSouth from time to time during the term of this Attachment upon thirty (30) days notice to CLEC-1 to

at least such minimum limits as shall then be customary with respect to comparable occupancy of BellSouth structures.

8.4 All policies purchased by CLEC-1 shall be deemed to be primary and not contributing to or in excess of any similar coverage purchased by BellSouth. All insurance must be in effect on or before the date equipment is delivered to BellSouth's Central Office and shall remain in effect for the term of this Attachment or until all CLEC-1's property has been removed from BellSouth's Central Office, whichever period is longer. If CLEC-1 fails to maintain required coverage, BellSouth may pay the premiums thereon and seek reimbursement of same from CLEC-1.

8.5 CLEC-1 shall submit certificates of insurance reflecting the coverage required pursuant to this Section a minimum of ten (10) days prior to the commencement of any work in the Collocation Space. Failure to meet this interval may result in construction and equipment installation delays. CLEC-1 shall arrange for BellSouth to receive thirty (30) days advance notice of cancellation from CLEC-1's insurance company. CLEC-1 shall forward a certificate of insurance and notice of cancellation to BellSouth at the following address:

BellSouth Telecommunications, Inc.
Attn.: Risk Management Coordinator
600 N. 19th Street, 18B3
Birmingham, Alabama 35203

8.6 CLEC-1 must conform to recommendations made by BellSouth's fire insurance company to the extent BellSouth has agreed to, or shall hereafter agree to, such recommendations.

8.7 Failure to comply with the provisions of this Section will be deemed a material breach of this Attachment.

9. Mechanics Liens

9.1 If any mechanics lien or other liens shall be filed against property of either party (BellSouth or CLEC-1), or any improvement thereon by reason of or arising out of any labor or materials furnished or alleged to have been furnished or to be furnished to or for the other party or by reason of any changes, or additions to said property made at the request or under the direction of the other party, the other party directing or requesting those changes shall, within thirty (30) days after receipt of written notice from the party against whose property said lien has been filed, either pay such lien or cause the same to be bonded off the affected property in the manner provided by law. The party causing said lien to be placed against the property of the other shall also defend, at its sole cost and expense, on behalf of the other, any action, suit or proceeding which may be brought for the enforcement of such liens and shall pay any damage and discharge any judgment entered thereon.

10. Inspections

10.1 BellSouth shall conduct an inspection of CLEC-1's equipment and facilities in the Collocation Space(s) prior to the activation of facilities between CLEC-1's equipment and equipment of BellSouth. BellSouth may conduct an inspection if CLEC-1 adds equipment and may otherwise conduct routine inspections at reasonable intervals mutually agreed upon by the Parties. BellSouth shall provide CLEC-1 with a minimum of forty-eight (48) hours or two (2) business days, whichever is greater, advance notice of all such inspections. All costs of such inspection shall be borne by BellSouth.

11. Security and Safety Requirements

11.1 The security and safety requirements set forth in this section are as stringent as the security requirements BellSouth maintains at its own premises either for their own employees or for authorized contractors. Only BellSouth employees, BellSouth certified vendors and authorized employees, authorized Guests, pursuant to Section 3.3, preceding, or authorized agents of CLEC-1 will be permitted in the BellSouth Premises. CLEC-1 shall provide its employees and agents with picture identification which must be worn and visible at all times while in the Collocation Space or other areas in or around the Premises. The photo Identification card shall bear, at a minimum, the employee's name and photo, and the CLEC-1 name. BellSouth reserves the right to remove from its premises any employee of CLEC-1 not possessing identification issued by CLEC-1. CLEC-1 shall hold BellSouth harmless for any damages resulting from such removal of its personnel from BellSouth premises. CLEC-1 shall be solely responsible for ensuring that any Guest of CLEC-1 is in compliance with all subsections of this Section 11.

11.1.1 CLEC-1 will be required, at its own expense, to conduct a statewide investigation of criminal history records for each CLEC-1 employee being considered for work on the BellSouth Premises, for the states/counties where the CLEC-1 employee has worked and lived for the past five years. Where state law does not permit statewide collection or reporting, an investigation of the applicable counties is acceptable.

11.1.2 CLEC-1 will be required to administer to their personnel assigned to the BellSouth Premises security training either provided by BellSouth, or meeting criteria defined by BellSouth.

11.1.3 CLEC-1 shall not assign to the BellSouth Premises any personnel with records of felony criminal convictions. CLEC-1 shall not assign to the BellSouth Premises any personnel with records of misdemeanor convictions, except for misdemeanor traffic violations, without advising BellSouth of the nature and gravity of the offense(s). BellSouth reserves the right to refuse building access to any CLEC-1 personnel who have been identified to have misdemeanor criminal convictions. Notwithstanding the

foregoing, in the even that CLEC-1 chooses not to advise BellSouth of the nature and gravity of any misdemeanor conviction, CLEC-1 may, in the alternative, certify to BellSouth that it shall not assign to the BellSouth Premises any personnel with records of misdemeanor convictions (other than misdemeanor traffic violations).

11.1.4 For each CLEC-1 employee requiring access to a BellSouth Premises pursuant to this agreement, CLEC-1 shall furnish BellSouth, prior to an employee gaining such access, a certification that the aforementioned background check and security training were completed. The certification will contain a statement that no felony convictions were found and certifying that the security training was completed by the employee. If the employee's criminal history includes misdemeanor convictions, CLEC-1 will disclose the nature of the convictions to BellSouth at that time. In the alternative, CLEC-1 may certify to BellSouth that it shall not assign to the BellSouth Premises any personnel with records of misdemeanor convictions other than misdemeanor traffic violations.

11.1.5 At BellSouth's request, CLEC-1 shall promptly remove from the BellSouth's Premises any employee of CLEC-1 BellSouth does not wish to grant access to its premises pursuant to any investigation conducted by BellSouth.

11.2 Notification to BellSouth. BST reserves the right to interview CLEC-1's employees, agents, or contractors in the event of wrongdoing in or around BellSouth's property or involving BellSouth's or another CLEC's property or personnel, provided that BellSouth shall provide reasonable notice to CLEC-1's Security contact of such interview. CLEC-1 and its contractors shall reasonably cooperate with BellSouth's investigation into allegations of wrongdoing or criminal conduct committed by, witnessed by, or involving CLEC-1's employees, agents, or contractors. Additionally, BellSouth reserves the right to bill CLEC-1 for all reasonable costs associated with investigations involving its employees, agents, or contractors if it is established and mutually agreed in good faith that CLEC-1's employees, agents, or contractors are responsible for the alleged act. BellSouth shall bill CLEC-1 for BellSouth property which is stolen or damaged where an investigation determines the culpability of CLEC-1's employees, agents, or contractors and where CLEC-1 agrees, in good faith, with the results of such investigation. CLEC-1 shall notify BellSouth in writing immediately in the event that the CLEC discovers one of its employees already working on the BellSouth premises is a possible security risk. Upon request of the other Party, the Party who is the employer shall discipline consistent with its employment practices, up to and including removal from the BellSouth Premises, any employee found to have violated the security and safety requirements of this section. CLEC-1 shall hold BellSouth harmless for any damages resulting from such removal of its personnel from BellSouth premises.

11.3 Use of Supplies. Unauthorized use of telecommunications equipment or supplies either Party, whether or not used routinely to provide telephone service (e.g. plug-in cards,) will be strictly prohibited and handled appropriately. Costs associated with

such unauthorized use may be charged to the offending Party, as may be all associated investigative costs.

11.4 Use of Official Lines. Except for non-toll calls necessary in the performance of their work, neither party shall use the telephones of the other Party on the BellSouth Premises. Charges for unauthorized telephone calls may be charged to the offending Party, as may be all associated investigative costs.

11.5 Accountability. Full compliance with the Security requirements of this section shall in no way limit the accountability of either Party to the other for the improper actions of its employees.

12. Destruction of Collocation Space

12.1 In the event a Collocation Space is wholly or partially damaged by fire, windstorm, tornado, flood or by similar causes to such an extent as to be rendered wholly unsuitable for CLEC-1's permitted use hereunder, then either party may elect within ten (10) days after such damage, to terminate this Attachment, and if either party shall so elect, by giving the other written notice of termination, both parties shall stand released of and from further liability under the terms hereof. If the Collocation Space shall suffer only minor damage and shall not be rendered wholly unsuitable for CLEC-1's permitted use, or is damaged and the option to terminate is not exercised by either party, BellSouth covenants and agrees to proceed promptly without expense to CLEC-1, except for improvements not the property of BellSouth, to repair the damage. BellSouth shall have a reasonable time within which to rebuild or make any repairs, and such rebuilding and repairing shall be subject to delays caused by storms, shortages of labor and materials, government regulations, strikes, walkouts, and causes beyond the control of BellSouth, which causes shall not be construed as limiting factors, but as exemplary only. CLEC-1 may, at its own expense, accelerate the rebuild of its collocated space and equipment provided however that a certified vendor is used and the necessary space preparation has been completed. Rebuild of equipment must be performed by a BellSouth Certified Vendor. If CLEC-1's acceleration of the project increases the cost of the project, then those additional charges will be incurred by CLEC-1. Where allowed and where practical, CLEC-1 may erect a temporary facility while BellSouth rebuilds or makes repairs. In all cases where the Collocation Space shall be rebuilt or repaired, CLEC-1 shall be entitled to an equitable abatement of rent and other charges, depending upon the unsuitability of the Collocation Space for CLEC-1's permitted use, until such Collocation Space is fully repaired and restored and CLEC-1's equipment installed therein (but in no event later than thirty (30) days after the Collocation Space is fully repaired and restored). Where CLEC-1 has placed an Adjacent Arrangement pursuant to section 3.4, CLEC-1 shall have the sole responsibility to repair or replace said Adjacent Arrangement provided herein. Pursuant to this section, BellSouth will restore the associated services to the Adjacent Arrangement.

13. Eminent Domain

13.1 If the whole of a Collocation Space or Adjacent Arrangement shall be taken by any public authority under the power of eminent domain, then this Attachment shall terminate as of the day possession shall be taken by such public authority and rent and other charges for the Collocation Space or Adjacent Arrangement shall be paid up to that day with proportionate refund by BellSouth of such rent and charges as may have been paid in advance for a period subsequent to the date of the taking. If any part of the Collocation Space or Adjacent Arrangement shall be taken under eminent domain, BellSouth and CLEC-1 shall each have the right to terminate this Attachment and declare the same null and void, by written notice of such intention to the other party within ten (10) days after such taking.

14. Nonexclusivity

14.1 CLEC-1 understands that this Attachment is not exclusive and that BellSouth may enter into similar agreements with other parties. Assignment of space pursuant to all such agreements shall be determined by space availability and made on a first come, first served basis.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – ALABAMA
PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$7,124.00 Disconnect Charge $1.73
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,400.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1675.00
	Cable Racking / Fiber Duct	Per arrangement, square foot		ICB
	Frame / Aisle Lighting	Per arrangement, square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Requested Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$189.86	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$19.29	NA
PE1PJ	Floor Space	Per square foot	$3.85	NA
PE1BD	Cable Installation	Per Cable	NA	$2,335.00

				Disconnect Charge $54.39
PE1PM	Cable Support Structure	Per entrance cable	$23.23	NA

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - ALABAMA
PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Power			
PE1PL	-48V DC Power	Per amp	$7.14	ICB
	120V AC Power single phase*	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB
	Cross Connects **(Note 4)**	Per Cross		First/Additional
PE1P2	2-wire	Connect	$.28	$30.76 / $29.40
PE1P4	4-wire		$.56	$31.01 / $29.58
PE1P1	DS-1		$2.14	$60.81 / $41.71
PE1P3	DS-3		$38.63	$57.80 / $39.81
PE1F2	2-fiber		$12.10	$55.46 / $39.18
PE1F4	4-fiber		$21.75	$66.71 / $50.43
				Disconnect Charges First / Additional
	2-wire			$12.75 / $11.38
	4-wire			$12.82 / $11.39
	DS-1			$12.85 / $11.50
	DS-3			$14.93 / $11.76
	2-fiber			$16.83 / $13.27
	4-fiber			$21.86 / $18.31
	Co-Carrier Cross-Connect **(Note 5)**			
PE1ES Fiber	Fiber Arrangement	Cable Support Structure, per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial		$0.03	NA
		Cable Support Structure (new)	NA	ICB
PE1A1	Security Access System			

	Security system* New Access Card Activation* Administrative change, existing card* Replace lost or stolen card*	Per Central Office Per Card Per Card Per Card	$52.00	 $55.00 $35.00 $250.00
	Space Availability Report*	Per Premises Requested		$550.00

Collocation

Handbook

Version 8

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SECTION 1

Preface

This handbook describes BellSouth's Collocation offerings, providing general information regarding the terms and conditions, ordering process, provisioning and maintenance of BellSouth's Collocation Offerings. If a collocator orders collocation service pursuant to BellSouth's Statement of Generally Available Terms and Conditions (SGAT), the terms and conditions provided herein become a legally binding agreement. However, to the extent that the collocator enters into a separate agreement with BellSouth for physical collocation, the terms and conditions of that agreement will apply. The terms and conditions for BellSouth's Virtual Collocation offering are described in BellSouth's FCC #1 Tariff, section 20 or BellSouth's Florida Access Tariff (E20).

Introduction

BellSouth offers Virtual Expanded Interconnection Service, or Virtual Collocation, as a tariffed service offering and Physical Collocation (Caged, Shared-Caged, Cageless and Adjacent) as a contract service offering. BellSouth will negotiate Physical Collocation on an individual contract basis. Both Virtual and Physical collocation will be made available on a first come, first served basis, depending on space availability for interconnection to unbundled network elements and retail service offerings necessary for use by telecommunications service providers in providing telecommunications services. You will find a list of contacts included for your convenience to obtain more information on BellSouth's collocation offerings.

SECTION 2

Service Descriptions

2.1 Virtual Expanded Interconnection Service (VEIS)

VEIS, or Virtual Collocation, is a tariffed service offering which provides for the placement of collocator-owned equipment and facilities in BellSouth Central offices for interconnection to the BellSouth network. Such equipment must be used or useful for the provision of telecommunications services and may include, but not be limited to, optical terminating equipment and multiplexers, digital subscriber line access multiplexers (DSLAM), routers, asynchronous transfer mode (ATM) multiplexers, and remote switching modules. Collocation arrangements may interconnect to designated BellSouth tariffed services, local interconnection trunks and/or unbundled network elements.

With VEIS, the collocator may opt to place fiber optic entrance facilities from outside the central office to an interconnection point designated by BellSouth (e.g. a serving manhole). The entrance facility is pulled into the central office cable vault by BellSouth, spliced into pre-terminated, fire-retardant riser cable and connected to the collocated equipment. Multiple entrance facility points will be made available where such entrances exist and capacity is available. The collocator must contract directly with its selected BellSouth Certified vendor for engineering and installation of the collocation equipment arrangement.

To ensure the compatibility of the facilities and equipment used to provision Virtual Collocation, collocated equipment and cabling facilities will be provided by the collocator. This includes, but is not limited to, all equipment to be placed within the arrangement and associated plug-ins/line cards, software, test equipment, the pre-terminated, fire-retardant riser cable, cabling from the equipment arrangement to the BellSouth cross-connect demarcation point, cabling from the arrangement to the BellSouth-provided power source, and any unique tools required to provision, maintain or repair the arrangement.

BellSouth will lease the collocator's entrance fiber, cabling and equipment arrangement for the nominal fee of one dollar. BellSouth will perform all maintenance and repair on VEIS equipment once the collocator requests such work. For this reason, VEIS equipment arrangements are most commonly located in the BellSouth equipment line-up. Performance monitoring and alarming of the collocated equipment is the responsibility of the collocator and must be performed remotely. For additional information regarding BellSouth's Virtual Expanded Interconnection Service, please reference Section 20 of BellSouth's FCC #1 tariff or section 20 of BellSouth's Florida Dedicated Access Tariff.

Service Descriptions (cont.)

2.2 Physical Collocation

Physical Collocation is a negotiated contract arrangement for the placement of collocator-owned facilities and equipment in BellSouth Central offices. Such equipment must be used or useful in the provision of telecommunications services and may include, but is not limited to, optical terminating equipment and multiplexers, digital subscriber line access multiplexers (DSLAM), routers, asynchronous transfer mode (ATM) multiplexers, and remote switching modules. Physical Collocation is available as: Caged, Shared Caged, Cageless and Adjacent. Equipment ownership, maintenance and insurance are the responsibility of the collocator or their approved agent. The equipment compliment may include any type of equipment used or useful for interconnection or access to unbundled network elements in the provision of telecommunications services.

For two-wire and four-wire connections to BellSouth's network, the demarcation point will be a common block on the BellSouth conventional distributing frame. The collocator is responsible for providing the common block and the necessary cabling. For all other terminations, BellSouth will designate a demarcation point on a per-arrangement basis which permits direct connection to BellSouth's network. The collocator may opt to place a point of termination bay (POT bay) within its collocation space; such POT bay will not serve as a demarcation point between the collocator's equipment and BellSouth's network.

In addition to and not in lieu of connection to BellSouth's network, BellSouth permits two or more carriers within the same BellSouth central office to directly connect their respective collocation arrangements through co-carrier cross-connects. A collocator may construct its own co-carrier cross-connection between its collocated equipment and that of one or more collocated carriers within the same central office premises using BellSouth certified vendors and BellSouth specifications for such connections, or may request that BellSouth provide such connection. In cases where the co-carrier cross-connect will be deployed between collocation equipment located within the same collocation space or within contiguous collocation spaces, then and only then will the collocator be permitted to perform the cross-connections themselves. All equipment placed as part of a collocation arrangement must be installed by a BellSouth Certified vendor and must meet Bellcore(Telcordia)/NEBS Level 1 standards. The collocator must contract directly with its selected certified vendor for the engineering and installation of the collocated equipment and facilities. Collocators interested in becoming a certified vendor may contact BellSouth to obtain vendor certification process information.

Caged Collocation: A collocator may enclose its collocated equipment and facilities within an arrangement enclosure (e.g., cage) at its option or if required by local building code. BellSouth will no longer construct arrangement enclosures. The collocator must arrange with a BellSouth certified contractor to construct the collocation arrangement enclosure in accordance with BellSouth's guidelines and specifications and at its sole expense. BellSouth will provide the construction guidelines and specifications upon request. Where local building codes require enclosure specifications more stringent than BellSouth's standard enclosure specification, the collocator and its BellSouth certified contractor must comply with building code requirements.

Service Descriptions (cont.)

Caged Collocation: (cont.)
Under certain conditions, the collocator may be permitted to construct power plant facilities. Power equipment installed by the collocator must be enclosed within fire rated walls, which must be constructed in accordance with BellSouth and local building code specifications utilizing a BellSouth certified contractor. The collocator's BellSouth certified contractor is responsible for filing and receiving any and all necessary permits and/or licenses for such construction performed within or upon the BellSouth central office. The certified vendor must bill the collocator directly for all work performed for the collocator and BellSouth will have no liability for nor responsibility to pay such charges imposed by the Certified vendor. The collocator must provide the local BellSouth building contact with two access keys used to enter the locked enclosure. BellSouth will not access the collocator's locked enclosure prior to notifying the collocator, except in case of emergency.

Shared (Subleased) Caged Collocation: A collocator may allow other telecommunications carriers to share the collocator's caged collocation arrangement pursuant to terms and conditions agreed to by the collocator ("Host") and other telecommunications carrier(s) ("Guests") and pursuant to this section with the following exceptions: (1) where local building code does not allow Shared (Subleased) Caged Collocation and (2) where the BellSouth central office is located within a leased space and BellSouth is prohibited by said lease from offering such an option. The terms and conditions of the agreement between the Host and its Guest(s) must be written and a copy provided to the Host's BellSouth contact within ten (10) business days of its execution and prior to submission of a firm order requesting shared space. Further, this agreement must incorporate by reference the rates, terms, and conditions of the Agreement between BellSouth and the Host.

The Host will be the sole interface and responsible party to BellSouth for the purpose of submitting applications for initial and additional equipment placements of Guest; for payment of rates and charges contained within its Agreement with BellSouth; and for purposes of ensuring that the safety and security requirements of its Agreement with BellSouth are fully complied with by the Guest, its employees and agents. The initial application for Guest(s) requires the assessment of an Application Fee. In addition, Guest(s) may arrange directly with BellSouth for the provision of the interconnecting facilities between BellSouth and the Guest and for the provisions of the services and access to unbundled network elements. The Host collocator must indemnify BellSouth and hold BellSouth harmless from any and all claims, actions, causes of action, of whatever kind or nature arising out of the presence of the collocator's Guests in the Collocation Space.

Cageless: Except where the local building code does not allow cageless collocation, BellSouth allows the collocator to place its equipment and facilities within the BellSouth central office without requiring the construction of a cage or similar structure and without requiring the creation of a separate entrance to the Collocation Space. BellSouth will allow the collocator to have direct access to its equipment and facilities and may require the collocator to use a central entrance to the BellSouth Central office.

Service Descriptions (cont.)

Caged Collocation: (cont.)
Cageless collocation is available in single bay increments. Except where the collocator's equipment requires special technical considerations (e.g., special cable racking, isolated ground plane), BellSouth assigns cageless Collocation Space in conventional equipment rack lineups where feasible. For equipment requiring special technical considerations, the collocator must provide the equipment layout, including spatial dimensions for such equipment, pursuant to the generic requirements contained in BellCore (Telcordia) GR-63-Core. The collocator will be responsible for constructing all special technical requirements associated with such equipment. The collocator must select a vendor which has been approved as a BellSouth Certified vendor to perform all engineering and installation work required in the Collocation Space.

Adjacent Space: Where space is legitimately exhausted in a particular BellSouth central office, and to the extent that it is technically feasible, a collocator may locate its equipment in an adjacent controlled environmental vault or similar structure (Adjacent Arrangement). Adjacent Arrangements may be constructed or otherwise procured, subject to reasonable safety and maintenance requirements, where the adjacent structure does not interfere with access to existing or planned structures or facilities on the Central office property and where permitted by zoning and other applicable state and local regulations. Rates for Adjacent Arrangements will be negotiated at the time of the request for Adjacent Collocation.

The collocator must arrange with a BellSouth certified contractor to construct or procure an Adjacent Arrangement structure in accordance with BellSouth's guidelines and specifications. BellSouth will provide these guidelines and specifications upon request. Where local building codes require enclosure specifications more stringent than BellSouth's standard specification, the collocator and its contractor must comply with local building code requirements. Further, the collocator must construct, procure, maintain and operate the Adjacent Arrangement(s) pursuant to the terms and conditions set forth in its Collocation Agreement with BellSouth.

The collocator's BellSouth certified contractor will be responsible for filing and receiving any and all necessary zoning, permits and/or licenses for construction of the Adjacent Arrangement. The collocator must provide a concrete pad, the structure housing the arrangement, HVAC, lighting, and all facilities that connect the structure (e.g., racking, conduits) to the BellSouth point of interconnection. At the collocator's option, BellSouth will provide an AC power source and access to physical collocation services and facilities subject to the same nondiscriminatory requirements as applicable to any other physical collocation arrangement.

The collocator's BellSouth Certified contractor must bill the collocator directly for all work performed for the collocator and BellSouth will have no liability for nor responsibility to pay such charges imposed by the Certified vendor. The collocator must provide the local BellSouth building contact with two cards, keys or other access device to enter the locked structure. Except in cases of emergency, BellSouth will not access the collocator's locked enclosure prior to notifying the collocator.

BellSouth maintains the right to review the collocator's plans and specifications prior to construction of an Adjacent Arrangement(s). BellSouth may inspect the Adjacent

Service Descriptions (cont.)

Adjacent Space: (cont.)
Arrangement(s) following construction and prior to commencement to ensure the design and construction comply with BellSouth's guidelines and specifications. BellSouth may require the collocator, at the collocator's sole cost, to correct any deviations from BellSouth's guidelines and specifications found during such inspection(s), up to and including removal of the Adjacent Arrangement, within five (5) business days of BellSouth's inspection, unless the parties mutually agree to an alternative time frame. A collocator may allow other telecommunications carriers to share the collocator's adjacent collocation arrangement pursuant to terms and conditions agreed to by the collocator ("Host") and the other telecommunications carriers ("Guests") and pursuant to this section with the following exceptions: (1) where local building code does not allow Shared (Subleased) Caged Collocation and (2) where the BellSouth central office is located within a leased space and BellSouth is prohibited by said lease from offering such an option. The terms and conditions of the agreement between the Host and its Guest(s) must be written and a copy provided to the collocator's BellSouth contact within ten (10) business days of its execution and prior to any firm order. This agreement must incorporate by reference the rates, terms, and conditions of the Agreement between BellSouth and the Host, whether such Agreement was achieved through separate negotiations or through the adoption of BellSouth's SGAT.

The Host will be the sole interface and responsible party to BellSouth for the purpose of submitting applications for initial and additional equipment placements of Guest(s); for payment of rates and charges contained within its Agreement with BellSouth; and for purposes of ensuring that the safety and security requirements of the its Agreement with BellSouth are fully complied with by the Guest(s), its employees and agents. The initial application for Guest(s) requires the assessment of an Application Fee. In addition, Guest may arrange directly with BellSouth for the provision of the interconnecting facilities between BellSouth and the Guest and for the provisions of the services and access to unbundled network elements. The collocator (Host) will indemnify BellSouth and hold BellSouth harmless from any and all claims, actions, causes of action, of whatever kind or nature arising out of the presence of the collocator's Guests in the Collocation Space.

SECTION 3

General Terms and Conditions

3.1 Contract Negotiations

For Physical Collocation, an agreement must be entered into between the collocator and BellSouth. This agreement may be a separately negotiated collocation agreement or the adoption of BellSouth's SGAT. To initiate the negotiation process, the collocator submits a Request for Negotiations letter to BellSouth. A sample request letter is included in this Handbook. Contract negotiations may take place concurrently with the Application Inquiry phase described below. **However, an agreement must be executed with BellSouth before the collocator may proceed with a Bona Fide Firm Order for Physical Collocation.**

3.2 Space Availability

BellSouth assigns space for collocation based on space availability on a first come, first served basis. For Virtual Collocation, space is assigned within the BellSouth equipment line-up based on the rack requirements for the equipment installation. Physical Collocation space is assigned based on the customer's request, where space permits. BellSouth will consider in its designation for cageless collocation any unused space within the BellSouth's central office,

3.2.1 Space Notification

BellSouth will respond within ten (10) business days of the receipt of an Application as to the availability or unavailability of space in a particular central office. Should BellSouth determine that there is no available space in the requested central office, BellSouth will provide a letter to the collocator denying the collocation request (Denial of Application). BellSouth will also notify the appropriate state commission of its intent to file a collocation waiver petition. Both the letter to the applicant and the notice to the Commissions will include the central office designation, the reason for the denial and any available information used by BellSouth to determine that there was no space available. (In Georgia, BellSouth will schedule a walkthrough pursuant to the consensus procedures reached in Docket # 10429-U. BellSouth will set forth the date and time of the walkthrough in the denial letter and the notice to the Commission. The walkthrough will be held during the period between the notice of denial and the filing of the waiver petition). If BellSouth determines there is no space within a BellSouth location to accommodate Physical Collocation, BellSouth will refund the Physical Collocation Application Fee. The collocator may request Virtual Collocation, in lieu of Physical Collocation, at the same premises by submitting a Virtual Collocation BSTEI form with the appropriate Application Fee.

3.2.2 Tour of Premises

In the event BellSouth denies a request due to space exhaust, BellSouth will, upon request, conduct a tour of the entire premises in question for the requesting carrier, without charge, within ten (10) days of the receipt of BellSouth's denial of space.

General Terms and Conditions (cont'd)

3.2.3 Petition for Waiver

BellSouth will submit to the state commission, subject to any protective order the state commission may deem necessary, detailed floor plan or diagrams of any premises where BellSouth claims that physical collocation is not practical because of space limitations. In the state of Georgia, the petition will be filed in accordance with the procedures set forth in the Workshop Consensus Document filed with the Georgia Public Service Commission in Docket No. 10429-U.

3.2.4 Public Notification

BellSouth will maintain on its Interconnection website a notification document indicating all central offices that are without space. BellSouth will update this document within ten (10) business days of the date of the first Denial of Application that causes space to become exhausted. At BellSouth's Interconnection website, CLECs may subscribe to an automatic email notification process, which will include, among other notices, a notice that the space exhaust list has been updated. BellSouth will also post a document in its Interconnection website that contains a general notice indicating where space has become available in a Central office previously on the space exhaust list. BellSouth will allocate said available space pursuant to the waiting list referenced in 3.2.5.

3.2.5 Waiting List

BellSouth will maintain a waiting list on a first come, first served basis of requesting carriers who have either received a Denial of Application, or, where it is publicly known that the central office is out of space, have submitted a Letter of Intent to collocate. BellSouth will notify the telecommunications carriers on the waiting list when space becomes available in a particular central office based upon the amount of space that becomes available and the position of telecommunications carriers on said waiting list. Upon request, BellSouth will notify a telecommunications carrier as to its position on the list.

3.2.6 Request for Report

Upon request from a telecommunications carrier, BellSouth will provide a written report specifying the amount of collocation space available at the central office premises requested, the number of collocations present at the central office premises, any modifications in the use of the space since the last report of the central office and the measures BellSouth is taking to make additional space available for collocation arrangements. The request from a telecommunications carrier must be written and must be include the central office premises address and Common Language Location Identification (CLLI) code. Such information regarding central office premises and CLLI code is located in the National Exchange Carriers Association (NECA) Tariff FCC No. 4. BellSouth will respond to a request for a particular Central office location within ten (10) business days of receipt of such a request. BellSouth will make best efforts to respond in ten (10) business days to such a request when the request includes up to and including five (5) Central office locations within the same state. The response time for requests of more than five (5) must be negotiated between the Parties.

General Terms and Conditions (cont'd)

3.3 Application Process

The application process for collocation is a two-phase process consisting of the Application Inquiry phase and the Bona Fide Firm Order phase. Both phases use BellSouth Expanded Interconnection forms (BSTEI forms).

For the Application Inquiry phase, a collocator must submit a complete and accurate BSTEI-1 Application Inquiry document, with the appropriate Application Fee, for review and planning by BellSouth equipment engineers, space planners and facility planners. A proposed equipment layout, an estimate of the square footage or bay space required and an application fee must accompany each Application Inquiry as indication of a bona fide request. BellSouth will inform the CLEC within ten (10) business days of receipt of an Application whether the Application is denied as a result of space availability and whether the Application is considered Bona Fide, or if it is not Bona Fide, the items necessary to cause the Application to be Bona Fide.

For physical collocation requests, BellSouth will provide a comprehensive written response ("Application Response") within thirty (30) business days of receipt of the complete application and Application Fee. When multiple applications are submitted within a fifteen business day window, BellSouth will respond to the applications as soon as possible, but no later than the following: within thirty (30) business days for applications 1-5; thirty six (36) business days for applications 6-10; within forty two (42) days for applications 11-15. Response intervals for applications in the same state in excess of 15 must be negotiated. For virtual collocation requests, BellSouth will provide an Application Response within twenty (20) business days of receipt of the complete application and Application Fee. When multiple applications are submitted within a fifteen business day window, BellSouth will respond to the applications as soon as possible, but no later than the following: within twenty (20) business days for applications 1-5; within twenty six (26) business days for applications 6-10; within thirty two (32) business days for applications 11-15. Response intervals for applications in the same state in excess of 15 must be negotiated. All negotiations will consider the total volume of all requests from telecommunications companies for collocation. The Application Response will detail whether the amount of space requested is available or, if the amount of space requested is not available, the amount of space that is available. The response will also include the configuration of the space.

As stated above, requesting collocators may begin the Application Inquiry process prior to the execution of Physical Collocation agreement with BellSouth. However, the agreement must be executed prior to proceeding to the Firm Order phase. A collocator may contact their BellSouth Interconnection Services Account Team contact noted in Section 5 of this Handbook for copies of BellSouth's Request for Negotiations, BSTEI forms and BSTEI line by line instructions.

General Terms and Conditions (cont'd)

3.4 Establishment of a Firm Order

Requesting collocators will have 30 days to review BellSouth's written response to the Application Inquiry and submit a Bona Fide Firm Order for each location for which the collocator wishes to proceed. A detailed equipment drawing must accompany the Firm Order request along with the pre-payment of applicable fees in order for the request to be Bona Fide. A Bona Fide firm order requires the collocator to complete the Application/Inquiry Process and submit a BellSouth Expanded Interconnection Bona Fide Firm Order document (BSTEI-1P-F) indicating acceptance of the written application response provided by BellSouth (Bona Fide Firm Order) and all applicable fees. BellSouth no longer requires the resubmission of the Application Inquiry document when placing a firm order.

The Bona Fide Firm Order must be received by BellSouth no later than thirty (30) days after BellSouth's Application Response. If a collocator makes changes to its application following BellSouth's Application Response, BellSouth will be required to reevaluate and respond the change(s). In this event, BellSouth's provisioning interval will not start until the reevaluation and response to the change(s) is complete and the Bona Fide Firm Order is received by BellSouth and all appropriate fees and duties have been executed. If BellSouth needs to reevaluate the collocator's application as a result of changes requested by the collocator to its original application, then BellSouth will charge the collocator a fee based upon the additional engineering hours required to do the reassessment. Major changes, such as requesting additional space or adding additional equipment may require the collocator to resubmit the application with an application fee.

Once the Firm Order is placed, the collocator may negotiate with a BellSouth Certified vendor for the equipment placement. Collocation equipment placement may not begin until BellSouth's space and infrastructure work is complete. This date is identified as the **Space and Infrastructure Complete Date** or **Space Ready Date**. BellSouth may, at is sole discretion, agree to an equipment installation date prior to the completion of its infrastructure work, provided the area is properly secured. For these exceptions, BellSouth will report this date as the **Space Available for Occupancy Date**. In these cases, the collocator must sign a liability waiver before such work may begin.

BellSouth will establish a Firm Order Date, per request, based upon the date BellSouth is in receipt of a Bona Fide Firm Order. BellSouth will acknowledge the receipt of the Bona Fide Firm Order within five business days of receipt indicating that the Bona Fide Firm Order has been received. The acknowledgment will be a **Firm Order Confirmation**, which will indicate the Firm Order Date. BellSouth's provisioning interval will begin on the Firm Order date. As mentioned above, if a collocator makes changes to its original application, BellSouth will be required to reevaluate and respond to the changes. In this event, the Firm Order Date will not be established until the application review, response and customer acceptance of the response, via BellSouth's receipt of the Bona Fide Firm Order, document is completed.

General Terms and Conditions (cont'd)

3.5 Provisioning Intervals

3.5.1 Physical Collocation

Excluding the time interval required to secure the appropriate government licenses and permits, BellSouth will complete Physical Collocation space when construction is under ordinary conditions within ninety (90) business days of receipt of complete and accurate Bona Fide Firm Order document and applicable fees, except where otherwise specified (e.g. negotiated contract terms or PSC decision). Ordinary conditions are defined as central office conditions where space can be made available with only minor changes to network or building infrastructure. Excluding the time interval required to secure the appropriate government licenses and permits, BellSouth will complete construction of collocation space under extraordinary conditions within one hundred thirty (130) business days of the receipt of a complete and accurate Bona Fide Firm Order. Extraordinary conditions are defined to include but are not limited to major BellSouth equipment rearrangement; power plant addition or upgrade; major mechanical addition or upgrade; major upgrade for ADA compliance; mainframe addition; environmental hazard or hazardous materials abatement.

3.5.2 Virtual Collocation

Utilizing the definitions described above, BellSouth will complete its work for Virtual Collocation under ordinary conditions within fifty (50) business days and under extraordinary conditions within seventy (75) business days. Although not generally required for Virtual Collocation preparation activities, the time interval required to secure any governmental licenses and permits will be excluded from BellSouth's Virtual Collocation Provisioning interval.

3.6 Enclosure Options (Physical Collocation only)

3.6.1 Arrangement Enclosure (Caged Collocation)

A collocator may enclose its equipment and facilities within an arrangement enclosure (e.g. cage) at its option or if required by local building code. The collocator must arrange with a BellSouth certified contractor to construct the collocation arrangement enclosure in accordance with BellSouth's guidelines and specifications and at its sole expense. BellSouth will provide these guidelines and specifications upon request. Where local building codes require enclosure specifications more stringent than BellSouth's standard enclosure specification, the collocator and its BellSouth certified contractor must comply with building code requirements. Under certain conditions, the collocator may be permitted to construct power plant facilities. Power equipment installed by the collocator must be enclosed within fire rated walls, which must be constructed in accordance with BellSouth and local building code specifications utilizing a BellSouth certified contractor. The collocator's BellSouth certified contractor is responsible for filing and receiving any and all necessary permits and/or licenses for such construction. The Certified vendor must bill the collocator directly for all work performed for the collocator and

General Terms and Conditions (cont'd)

3.6 Enclosure Options (cont'd)

3.6.1 Arrangement Enclosure (Caged Collocation) (cont'd)

BellSouth will have no liability for nor responsibility to pay such charges imposed by the Certified vendor. The collocator must provide the local BellSouth building contact with two access keys used to enter the locked enclosure. Except in case of emergency, BellSouth will not access the collocator's locked enclosure prior to notifying the collocator.

3.6.2 Unenclosed Space (Cageless Collocation)

Except where local building code does not allow cageless collocation, BellSouth allows the placement of equipment and facilities without requiring the construction of a cage or similar structure and without requiring the creation of a separate entrance to the Collocation Space. BellSouth will make cageless (Unenclosed) collocation available in single bay increments. Except where the collocator's equipment requires special technical considerations (e.g. special cable racking, isolated ground place), BellSouth will assign cageless Collocation Space in conventional equipment rack lineups where feasible. For equipment requiring special technical considerations, the collocator must provide the equipment layout, including spatial dimensions for such equipment pursuant to generic requirements contained in BellCore (Telcordia) GR-63-Core and will be responsible for constructing all special technical requirements associated with such equipment. The collocator must select a vendor which has been approved as a BellSouth Certified vendor to perform all engineering and installation work required in the Collocation Space. BellSouth will consider in its designation of cageless collocation any unused space within BellSouth's central office. A collocator designating certain technical requirements may necessitate a specific amount of Unenclosed space (e.g. oversized non-standard bays), given that such designation is adequate to accommodate the requested equipment installation per industry standards. Otherwise, aisle space for wiring and maintenance will be designated to the collocator based on a factor as described in section 4.2.3 following. The minimum requirement for Unenclosed Collocation space is one bay.

3.7 Entrance Facilities

Requesting collocators may place collocator-owned fiber entrance facilities into the Collocation Space. BellSouth will designate the point of interconnection in proximity to the premises housing the collocation space, such as an entrance manhole or cable vault. When a private entrance facility is used, the collocator must provide and place a sufficient length of fiber cable at the point of interconnection to be pulled through to a splice location, where the entrance fiber will be spliced to collocator-provided fire retardant riser cable. When non-metallic riser rated fiberoptic cable is used as the entrance facilities as splice is not needed. Alternatively, requesting carriers may splice a new fire-retardant riser into the spare capacity of an existing fiber entrance facility. collocators are not permitted unrestricted access to BellSouth's serving manhole(s) and must contact BellSouth for instructions prior to placing the entrance facility cable in the manhole.

General Terms and Conditions (cont'd)

3.7 Entrance Facilities (cont'd)

BellSouth will provide at least two interconnection points at each central office where there are at least two such interconnection points available and where capacity exists. Upon receipt of an application requesting dual entrance, BellSouth will provide information regarding BellSouth's capacity to accommodate dual entrance facilities. The provision of dual entrance does not guarantee fiber route diversity to serve the collocation arrangement. BellSouth will evaluate its ability to provide for entrance facilities associated with microwave antennae on an individual case basis.

3.8 Equipment

3.8.1 Equipment Type

BellSouth permits the collocation of any type of equipment used or useful for interconnection to BellSouth's network or for access to unbundled network elements in the provision of telecommunications services. Such equipment used or useful for interconnection and access to unbundled network elements includes, but is not limited to, optical terminating equipment, multiplexers, digital subscriber line access multiplexers, routers, asynchronous transfer mode multiplexers, and remote switching modules. BellSouth is not required to permit collocation of equipment used solely to provide enhanced services; provided, however, that BellSouth may not place any limitations on the ability of requesting carriers to use all the features, functions, and capabilities of equipment collocated pursuant to this section.

3.8.2 Equipment Standards

Equipment placed in collocation space must at a minimum meet the following BellCore (Telcordia) Network Equipment Building Systems (NEBS) General Equipment Requirements: Criteria Level 1 requirements as outlines in the BellCore (Telcordia) Special Report SR-3580, Issue 1; equipment design spatial requirements per GR-63-CORE, Section 2; thermal heat dissipation per GR-063-CORE, Section 4, Criteria 77-79; acoustic noise per GR-063-CORE, Section 4, Criterion 128, and National Electric Code standards.

3.8.3 Installation of Equipment

The collocator must select an equipment installation vendor who has achieved BellSouth Certified Vendor status to perform all engineering and installation work associated with the equipment collocation arrangement. This ensures that BellSouth's standards for safety and quality are met. The certified vendor(s) are responsible for installing the collocation equipment and components, running power feed(s) to the BellSouth Bus Distribution Fuse Bay (BDFB), installing cabling and terminations at the designated demarcation point, performing operational tests after the equipment installation is completed, and notifying the local BellSouth central office foreman and the collocator upon successful completion of the installation, and acceptance testing. Arrangements must be made such that the collocator is billed directly by the certified vendor for activities associated with the arrangement installation. The collocator and its vendor

General Terms and Conditions (cont'd)

3.8.3 Installation of Equipment (cont'd):

must comply with USTA environmental and safety guidelines for installation and operation of the collocation arrangement. Once acceptance testing is complete, the collocator will notify BellSouth in writing that their equipment is installed, tested and ready for service provisioning. This date is the Installation Complete Date. Without this notification from the collocator, BellSouth may not accept requests to connect service to the collocation arrangement. For Virtual Collocation only, the Certified vendor must supply BellSouth a complete and accurate list of all equipment and facilities installed as part of the arrangement for insurance purposes. This list will become a bona fide attachment to the equipment lease. The lists of certified vendors effective as of the issue date of this Handbook are contained in Section 5. For the most current list, a collocator may contact their BellSouth Interconnection Services Account Team contact noted in Section 5.

3.8.4 Interference or Impairment

Equipment and facilities placed in the collocation space must not interfere with or impair service provided by BellSouth or by any other interconnector located in the central office; must not endanger or damage the facilities of BellSouth or of any other interconnector, the collocation space, or the central office; must not compromise the privacy of any communications carrier in, from, or through the central office; and must not create an unreasonable risk or injury or death to any individual or to the public. If BellSouth reasonably determines that any equipment or facilities of the collocator violates the requirements provisions of this section, BellSouth will give written notice to the collocator, this notice will direct the collocator to cure the violation within forty eight (48) hours of the collocator's actual receipt of the written notice or, at a minimum, to initiate corrective measures within twenty four (24) hours and to exercise reasonable diligence to complete these measures as soon as possible thereafter. After receipt of the notice, BellSouth and the collocator agree to consult immediately and, if necessary, to inspect the arrangement. If the collocator fails to take corrective action within forty eight (48) hours or if the violation is of a character which poses an immediate and substantial threat of damage to property, injury or death to any person, or interference/impairment of the services provided by BellSouth or any other interconnector, then and only in that event BellSouth may take action as it deems appropriate to correct the violation, including without limitation the interruption of electrical power to the collocator's equipment. BellSouth will endeavor, but is not required, to provide notice to the collocator prior to taking such action and will have no liability to collocator for any damages arising from such action, except to the extent that such action by BellSouth constitutes willful misconduct.

3.9 Occupancy of Space

The collocator must complete the collocation equipment installation within 180 calendar days from the Complete Space Ready Date or forfeit the right to use the space. BellSouth may, at its discretion, extend the 180 calendar day interval when best efforts have been demonstrated by the collocator in attempting to complete installation work within the 180 calendar days.

General Terms and Conditions (cont'd)

3.10 Commencement Date

The Commencement Date of an arrangement depends upon the Installation Complete Date and the notification of such date to BellSouth. Upon completion of the collocation equipment installation, the collocator and the collocator's vendor must jointly agree the collocator's equipment is operational and connected to BellSouth's network. This date will be the **Installation Complete Date**. The collocator must notify BellSouth of the Installation Complete Date in writing.

For Physical Collocation, the Commencement Date will be the Installation Complete Date. For Virtual Collocation, BellSouth will prepare the Equipment Lease agreement upon receipt of both the notification of the Installation Complete Date and the complete and accurate "as installed" equipment and facilities list. The Virtual Collocation Commencement Date will be the date the Lease is executed.

3.11 Alarm, Monitoring and Maintenance

The collocator is responsible for the placement and remote monitoring of equipment alarms, environmental alarms, and/or power alarms. BellSouth will place environmental alarms in collocation areas for its own use and protection. Upon request, BellSouth will provide to the collocator dedicated data circuits for use in remote monitoring activities at the tariff rate for the service requested. For Physical Collocation, the collocator or its agent is responsible for the maintenance and repair of the collocated equipment and facilities. For Virtual Collocation, BellSouth assumes the maintenance responsibility for the collocated equipment at the initiation and direction of the collocator.

3.12 Ordering Interconnected Service

Virtual collocators may interconnect to BellSouth's network at the DS3, DS1, 2-wire and 4-wire DS0 cross-connect levels. (A DS0 equivalent is available in Florida only). Interconnection to Physical Collocation is available at the 2-wire or 4-wire, DS1, DS3 or Fiber Optic interface levels on a negotiated basis only. Please ask your BellSouth contact for specific information. Services to be interconnected to a collocation arrangement must be submitted on Access Service Request (ASR) forms or Local Service Request (LSR) forms using industry standards and code sets for accurate and complete requests. For information regarding the ASR ordering process and field definitions, please reference the Access Service Ordering Guide, Bellcore's Special Reports SR STS-471001 and 471004. For information regarding the LSR ordering process and field definitions, please reference BellSouth's Local Interconnection and Facility Based Ordering Guide.

General Terms and Conditions (cont'd)

3.13 Assignment of Facilities

BellSouth assigns and pre-wires interconnection facilities from within its network to the collocation demarcation point. These facilities will be named as TIE cables or cable and pair. Physical Collocation interconnection facilities are built between the BellSouth frame, DSX or LGX and the point of demarcation. The interconnection facilities for Virtual Collocation are built between the BellSouth frame, DSX or LGX and the collocator's equipment.
BellSouth provides the facility interconnection information on the Design Layout Record (DLR) for DS1 and DS3 interconnection and on the Cable and Pair Assignment Matrix for 2-wire and 4-wire (DS0) and fiber optic interconnection. The customer must specify interconnection facility information as a Circuit Facility Assignment (CFA) or cable and pair/channel assignment, respectively, on the Access Service Request or Local Service Request when ordering cross-connects to unbundled network elements or tariffed services.

3.14 Combining UNEs via Collocation

When a collocator orders unbundled network elements (UNEs) in order to recombine them within the collocation space, the facility designation described in the previous section must be used to facilitate this combination. An example of how a collocator might combine individual unbundled network elements is the combination of an unbundled loop and an unbundled switch port. BellSouth will wire each UNE to the cable and pair or TIE pair designated by the collocator on the UNE order. Both the loop and the switch port are terminated on the Distributing Frame within the BellSouth central office. Upon request of the collocator, BellSouth will wire the loop to the cable and pair facility designation indicated on the unbundled loop order. BellSouth will also wire the unbundled switch port to the cable and pair facility designation indicated on the unbundled switch port order.

For Physical Collocation, BellSouth's wiring of the UNEs to the cable and pair interconnection facilities designated by the collocator correlates to a pre-designated position(s)at the point of demarcation. The collocator may complete the combination via connections within their collocated equipment either manually or electronically.

To facilitate combinations in Virtual Collocation, the collocator may employ one of several options which may include, but is not limited to: pre-wired terminations on their transmission equipment, electronic digital cross-connects or other means of performing cross-connects remotely, or connections on a per request basis. An example of using pre-wired terminations might include the collocator arranging the pre-wiring of "position 100" to "position 200", "position 101" to "position 201" and etc. Should the collocator wish to combine two elements, such as combining an unbundled loop with an unbundled switch port, the collocator would specify the BellSouth cable and pair assignment correlating to slot 100 on the unbundled loop order and would specify the BellSouth cable and pair assignment correlating to slot 200 for the unbundled switch port. With slot 100 and slot 200 being pre-connected by the Certified vendor, the elements are automatically combined once BellSouth completes its connection of each of the elements to the designated interconnection facility cable and pair assignments.

General Terms and Conditions (cont'd)

3.15 Access to BellSouth Central offices

Access to Virtual Collocation is permitted for BellSouth employees and certified vendors. Virtual collocators are permitted to view the completed installation for inspection only as referenced in the preceding paragraphs. Access to Physical Collocation is permitted for authorized collocator employees, authorized collocator's agents, BellSouth certified vendors, and BellSouth employees twenty four hours a day, seven days a week. All physical collocators are required to provide their employees and authorized agents a picture identification. This identification must have the employee name and company name clearly printed and must be visible at all times while the individual is inside a BellSouth facility. In addition, collocators must comply with all requirements in Section 3.18 "Liability and Security Requirements".

3.16 Conversion of VEIS to Physical Collocation

Collocators who have existing VEIS arrangements may convert these arrangements to Physical Collocation provided the terms and conditions for Physical Collocation are met. The collocator will be responsible for the issuance of service order requests and the payment of fees associated with Physical Collocation, rearrangement of existing services and vendor costs for the relocation/removal of the virtual collocation equipment.

3.17 Inspections

BellSouth will conduct an inspection of the collocator's equipment and facilities between the time of the initial turn over of the space and the activation of cross-connect elements. Subsequent inspections may occur with equipment additions or on a predetermined interval basis. For such inspections, BellSouth will provide a minimum of 48 hours advance notification. BellSouth reserves the right to conduct inspections without prior notification to ensure compliance with the terms and conditions of the tariff or agreement. Collocator personnel have the right to be present for inspections.

A collocator may inspect their Virtual Collocation arrangement upon completion of the arrangement installation. A security escort is required for these inspections. Additional inspections must be coordinated with BellSouth and also require a security escort. Only collocators or their certified vendors are permitted for such inspections. Collocators may not use their inspection privilege to work on, test, or modify their virtual equipment installation. Equipment installation, upgrades or testing must be performed by a Certified vendor following BellSouth's receipt of a written application requesting such work.

3.18 Liability & Security Requirements

The collocator is responsible and accountable for the actions of their employees their Guests (as defined in Section 2 of this document) and their agents. The collocator will be required to pay damages to BST for damage to BST property, equipment or facilities as a result of the actions or behaviors of either the collocator employees or their agents.

General Terms and Conditions (cont'd)

3.18.1 Background Checks and Security Training for Collocator Employees

In order to provide reasonable security measures, BellSouth requires all collocator employees to undergo the same level of security training, or its equivalent, that BellSouth's own employees, or third party contractors providing similar functions, must undergo. Only BellSouth employees, authorized Guests, (as defined in Section 2 of this document), or authorized agents of the collocator will be permitted in the BellSouth central office. Each collocator must provide its employees with picture identification, which must be worn and visible at all times in the collocation space or other areas in and around the central office. The Photo Identification card must bear, at a minimum, the employee's name and photo, and the collocator company name. BellSouth reserves the right to remove from its premises any employee of a collocator not possessing identification issued by the collocator. Collocators must hold BellSouth harmless for any damages resulting from such removal of its personnel from BellSouth premises. The collocator will be solely responsible for ensuring that any Guest(s) of the collocator is in compliance with this section.

3.18.2 Criminal Investigation

Collocators will be required, at their own expense, to conduct an investigation of criminal history records for each collocator employee being considered for work within or upon a BellSouth premises, for the states/counties where the collocator employee has worked and lived for the past five years. A statewide inquiry is preferred. Where the law does not permit statewide collection or reporting, a check of the applicable counties is acceptable.

Collocators will not be permitted to assign to BellSouth premises any personnel with records of felony criminal convictions. Collocators may not assign to BellSouth premises any personnel with records of misdemeanor convictions without first advising BellSouth of the nature and gravity of the offense(s). BellSouth reserves the right to refuse building access to any collocator personnel who have been identified to have misdemeanor criminal convictions. For each collocator employee requiring access to a BellSouth central office, the collocator must furnish BellSouth an affidavit certifying that the aforementioned background check was completed. The affidavit will contain a statement certifying that no felony convictions were found and certifying that the security training was completed by the employee. If the employee's criminal history includes misdemeanor convictions, the collocator will disclose the nature of the convictions to BellSouth at that time.

At BellSouth's request, collocators must promptly remove from BellSouth's premises any employee, Guest or agent of the collocator to whom BellSouth does not wish to grant access to its premises pursuant to any investigation conducted by BellSouth.

General Terms and Conditions (cont'd)

3.18 Liability & Security Requirements (cont'd)

3.18.3 Security Training

Collocators are required to administer to their personnel, Guests and agents assigned to BellSouth premises security training either provided by BellSouth, or meeting criteria defined by BellSouth.

3.18.4 Notification to BellSouth

The collocator and its contractors must cooperate fully with BellSouth's investigation into allegations of wrongdoing or criminal conduct committed by or involving collocator's employees, agents, or contractors. As part of such investigation, BellSouth reserves the right to interview a collocator's employees, Guests, agents, or contractors. Additionally, BellSouth reserves the right to bill the collocator for all costs associated with investigations involving its employees, Guests, agents, or contractors if it can reasonably be established that the collocator's employees, Guests, agents, or contractors are responsible for the alleged act. BellSouth will bill the collocator for BellSouth property which is stolen or damaged where an investigation determines the culpability of the collocator's employees, Guests, agents, or contractors. The collocator must notify BellSouth in writing immediately in the event that the collocator discovers one of its employees already working on the BellSouth premises is a possible security risk to BellSouth or any other collocator, or has violated BellSouth policies set forth in the BellSouth CLEC Security Training. The collocator must hold BellSouth harmless for any damages resulting from such removal of its personnel from BellSouth premises.

3.18.5 Use of BellSouth Supplies by collocator employees

Use of any BellSouth supplies by a collocator employee, whether or not used routinely to provide telephone service, will be considered theft and will be handled accordingly. Costs associated with such unauthorized use of BellSouth property may be charged to the collocator, as may be all associated investigative costs. At BellSouth's request, collocator must promptly and permanently remove from BellSouth's premises any employee of the collocator found to have violated this restriction.

3.18.6 Use of Official Lines by collocator employees

Except for local calls necessary in the performance of their work, collocator employees must not use the telephones on BellSouth premises. Charges for unauthorized telephone calls made by a collocator's employee may be charged to the collocator as may be all investigative costs. At BellSouth's request, collocator must promptly and permanently remove from BellSouth's premises any employee of the collocator found to have violated this rule.

General Terms and Conditions (cont'd)

3.18.7 Accountability

Full compliance with the security requirements enumerated in this handbook will in no way limit the accountability of any collocator for the improper action of its employees.

3.19 Insurance Requirements

For Physical Collocation, BellSouth requires the following coverage: (1) $10 million in commercial general liability insurance or a combination of commercial general liability and excess umbrella coverage totaling $10 million; (2) workers compensation coverage/employers liability coverage with limits not less than $100,000 each accident; (3) $100,00 each employee by disease, $500,000 policy limit by disease. BellSouth will review requests for self-insurance on a case by case basis.

Insurance coverage for Physical Collocation must be in effect on or before the date work commences or equipment is delivered, whichever is sooner, and must remain in effect until departure of all collocator personnel and property from the central office. Insurance for Virtual Collocation is the responsibility of BellSouth per the arrangement lease agreement. Virtual collocators must submit annually to BellSouth an updated list of facilities and equipment contained in their Virtual Collocation arrangement to assist BellSouth in ensuring adequate insurance coverage is in place should a disaster occur.

3.20 Subsequent Activity

Should a collocator require subsequent activity to its collocation space, whether for itself or its Guest(s), the collocator must submit an Application and the appropriate Application Fee to BellSouth to evaluate the impact on support mechanisms or space. Subsequent activity may include, but not be limited to: additional equipment placement, additional square footage build-out, additional cross-connects, equipment rearrangement or equipment exchange.

3.21 Recovery of Extraneous Expenses

Should BellSouth discover that unexpected major renovation or upgrade will be required in order to facilitate physical collocation, BST will share the costs of these expenses among collocators benefiting from such work based on the number of square feet being requested. Major renovation may include, but not be limited to, ground plane addition, asbestos abatement, mechanical upgrade, major HVAC upgrade, separate egress, ADA compliance.

General Terms and Conditions (cont'd)

3.22 Cancellation of a Request In Progress

If, at any time, a telecommunications carrier cancels its order for the Collocation Space(s), the telecommunications carrier will reimburse BellSouth for any expenses incurred up to the date that written notice of the cancellation is received. In no event will the level of reimbursement under this paragraph exceed the maximum amount the telecommunications carrier would have otherwise paid for work undertaken by BellSouth if no cancellation of the order had occurred.

3.23 Disconnection/Relocation of an In-Service Arrangement

When a collocation arrangement is disconnected or relocated, the collocator must contract directly with its selected BellSouth Certified vendor to remove/relocate all equipment and facilities associated with the decommissioned arrangement at the expense of the collocator. In this event, the collocator must relinquish the Collocation Space to BellSouth in the same condition as when first occupied except for ordinary wear and tear. The collocator is responsible for the cost of removing any enclosure, including an Adjacent Arrangement structure, together with all support structures (e.g. racking, conduits), at the termination of occupancy and restoring the space or grounds to their original condition.

3.24 Special Reports

BellSouth will negotiate with requesting parties for the development of administrative reports, based on the availability of the data being requested. A fee structure will be based on the complexity of the request and resources required to produce the report(s). BellSouth will provide Space Availability Reports pursuant to Section 3.2.6.

SECTION 4

Rate Components

4.1 Virtual Collocation

The rate element components of Virtual Collocation are contained in BellSouth's FCC #1 tariff, Section 20 and in the Florida Dedicated Services tariff, Section 20. Please refer to these references for the application of charges for Virtual Collocation.

4.2 Physical Collocation

Physical Collocation offers a menu-style ordering provision so you may select only the items required for your individual arrangement(s). Some components are required for all physical collocation arrangements as indicated by an (R) designation next to the item in the descriptions following.

4.2.1 Application Fee (R)

The application fee is required for each application to cover the engineering and administrative expense associated with assessing the Application Inquiry request. This fee is a one time charge per location, per request and must accompany the Application Inquiry document before BellSouth will begin assessing the request. A subsequent request by the same customer in the same premises will be treated as "new" if the initial collocation installation design work is completed and work has commenced. An Application fee will apply if BellSouth must expend capital to accommodate the request.

4.2.2 Subsequent Application Fee

A Subsequent Application fee may apply in lieu of the Application fee when subsequent requests for Physical Collocation by the same customer in the same premises do not require BellSouth to expend capital and the collocator has this option negotiated as part of their collocation agreement with BellSouth. A Subsequent Application fee may apply for items including, but not limited to: exchange of existing equipment, adding equipment, addition of cross-connections (including BellSouth's "side" of the demarcation point), addition of equipment racking.

4.2.3 Floor Space (R)

The floor space charges include reasonable charges for lighting, heat, air conditioning, ventilation (except for adjacent structures) and other allocated expenses associated with maintenance of the Central office but does not include amperage necessary to power the collocator's equipment.

Rate Components (cont'd)

4.2.3 Floor Space (R) (cont'd)

4.2.3.1 Caged Collocation: When the Collocation Space is enclosed by walls or other divider, the collocator will pay floor space charges based upon the number of square feet so enclosed.

4.2.3.2 Cageless Collocation: When the Collocation Space is not enclosed, the collocator will pay floor space charges based upon the [(depth of the equipment lineup in which the rack is placed) + (0.5 x maintenance aisle depth) + (0.5 wiring aisle depth)] X (width of rack and spacers). Floor space charges are due beginning on the date on which BellSouth releases the Collocation Space for occupancy or on the date the collocator first occupies the Collocation Space, whichever is sooner. Should the customer request a specified amount of non-enclosed space due to special technical considerations, floor space charges will be assessed based upon the number of square feet requested, provided such space is adequate to accommodate the requested equipment layout and industry standard forward and rear aisle space. BellSouth requires an enclosure if a collocator places power equipment or requires a desk or terminal stand.

4.2.4 Power (R)

Except for Adjacent Arrangements, BellSouth provides –48DC power to collocation arrangements within the central office. Charges for –48V DC power are assessed per ampere per month based upon the certified vendor engineered and installed power feed fused ampere capacity. Rates include redundant feeder fuse positions (A&B), cable rack to the collocated equipment or equipment arrangement enclosure, and emergency back-up power. Fuses and power feed cables (A&B) must be engineered (sized), furnished and installed by a BellSouth certified vendor. A collocator may have breaker positions installed within their Physical Collocation space. The Interconnector's certified vendor must provide a copy of the engineering power specification prior to the Commencement Date.

For Adjacent Arrangements, BellSouth will provide an AC power source upon request from the collocator. Charges for AC power will be assessed per breaker ampere per month based upon the certified vendor engineered and installed power feed fused capacity. Rates include the provision of commercial and stand-by AC power.

When a collocator requests collocation of equipment that requires BellSouth to construct an addition and/or an upgrade to the power plant in a specific central office, these additions and/or upgrades will be part of the Space Preparation charge. Under limited circumstances, the collocator has the option of accepting responsibility for construction of such upgrades or additions per BellSouth specifications and assuming all costs associated with the construction. Power equipment placed by the collocator must be enclosed within fire rated walls.

Rate Components (cont'd)

4.2.5 Cross-Connect (R)

This element provides the one-for-one interconnection to Unbundled Network Elements (i.e. 2-wire or 4-wire unbundled loop, unbundled ports) or BellSouth's tariffed service offerings (i.e. DS0, DS1 or DS3 services). Cross Connects are flat rated, non-distance sensitive elements and will be assessed a non-recurring and recurring charge.

4.2.6 POT Bay

When a Point of Termination (POT) bay or frame supplied by BellSouth for demarcation is utilized with physical collocation, a recurring monthly charge applies on a per cross-connect basis. There is no non-recurring charge for this element. Effective June 1, 1999 BellSouth no longer utilizes a POT Bay as a demarcation point.

4.2.7 Cable Installation

The cable installation charge applies only to collocators who install private entrance facilities to their collocation arrangement. This is a one time (non-recurring) charge per cable installed to arrange the punch through to the manhole, pull fiber cable length from the serving manhole to the Central office cable vault, perform splicing to collocator's connectorized fire retardant riser, and pull cable length through cable support structure to the collocation arrangement location.

4.2.8 Cable Support Structure

The component covers the use and maintenance of the Central office duct, riser and overhead racking structure when the collocator elects to provide private fiber entrance facility to their equipment.

4.2.9 Space Preparation Fee

This one time fee applies for physical collocation only, per arrangement, per location and covers the survey, engineering, design, and building / support system modifications for the shared physical collocation area within a central office plus additional "make ready work" specific to the collocator which is not included in the enclosure construction fee. Except in Georgia where the Commission has set a standard rate per square foot, BellSouth will assess standard space preparation charges for mechanical (HVAC), security access systems and project management. All other fees will be pro-rated among all collocators at a given central office based on the actual preparation costs and the number of square feet requested per collocator. In states other than Georgia, this charge may vary dependent on the location and type of arrangement requested.

BellSouth will provide the collocator an estimate of construction costs in writing as part of the Application Response. For arrangements in Georgia, the charge will be calculated by multiplying the amount of enclosed or non-enclosed space designated to the collocator by the

Rate Components (cont.)

4.2.9 Space Preparation Fee (cont'd)

per square foot fee set by the Georgia Commission. As designated in the Application Response, a portion of the estimated Space Preparation charge must be paid prior to BellSouth beginning construction work.

Under the limited circumstances where the collocator elects to directly arrange the necessary construction of DC power plant capacity, the construction of the power equipment enclosure must be directly arranged with a BellSouth certified contractor. Such enclosure, will become the property of BellSouth upon termination of the collocation arrangement.

4.2.10 Enclosure Construction Fee

BellSouth no longer offers the construction of enclosures for Physical Collocation. This rate element applies only to equipment arrangement enclosures constructed by BellSouth for requests received prior to June 1, 1999.

4.2.11 Additional Engineering

BellSouth's engineering and other labor time associated with establishing the equipment arrangement and establishing tie cables will be billed as additional engineering. This charge will also apply for modifications to an application in progress which result in architectural, design or engineering changes.

4.2.12 Security Escort

A security escort is required for all equipment inspections under VEIS. A security escort may be required at no cost to the collocator for physical collocation if the collocator or their agent must traverse a restricted area in order to access their collocation space.

4.2.13 Reports

Collocators who request administrative reports will be assessed a report fee on an individual case basis.

SECTION 5

Contacts

Physical Collocation contract negotiation:

Contact Name	Telephone
Jerry Hendrix	404 927-7503

New accounts or accounts that have not been assigned a Collocation Coordinator:
Call 1-888-560-CLEC (2532) for assistance

Competitive Local Exchange Companies (CLEC) or Competitive Access Providers (CAP):

Contact Name	Account	Telephone	Fax Number
Brenda Burkholder	AT&T	770-492-7574	770-492-9412
Connie Butrill	Wireless	770-454-2983	205-454-2907
Debbie Evans	ACS*	205-321-7737	205-321-7790
Valerie Gray	AT&T	770-492-7563	770-492-9412
Barbara Hunter	CIS	205-321-4933	205-321-5058
Ruby Neely	SprintMetro	205-321-4621	205-321-4637
Nancy Nelson	CIS*	205-321-4986	205-321-5058
Kim Reid	CIS	205-321-4980	205-321-5058
Linda Walker	BSLD	770-592-4352	770-592-3453
Fran Wilemon	MCI/Worldcom	770-492-7541	770-621-0632
Cindy Woolsey	ACS*	205-321-7177	205-321-7790
Charlie Wright	CIS	205-321-4978	205-321-5058

*CIS = collocator Interconnection Sales
*ACS = Access Customer Sales

Accounts not listed:
Please contact your BellSouth Account Team Representative,
or call 1-888-560-CLEC (2532) for assistance.

To obtain a copy of BellSouth's current Application / Inquiry document:

Contact your Account Representative
or
Visit BellSouth's Interconnect website at:
www.interconnection.bellsouth.com

Example
BellSouth Certified Transmission Vendor List
Engineering and Installation of Collocation Arrangements

Vendor	Contact	Phone
ADC Communications	Ken Reeves Doug Guildry	800-223-9773 318-684-2860
ADC Da Tel	Basem Anshasi	205-655-9898
Alcatel	Ed Boatwright Alex Baber	770-270-8335 800-869-4869
E F & I Services Co.	Reed Tillis	904-355-7930
Fujitsu Network Communications, Inc. ***Certified – Collocation (OEM)*** ***Fujitsu Equipment Only***	J. Quinta Evans	770-246-4102
Lucent Technologies, Inc.	(SC) Adrian Dye (MS)Larry Montgomery (GA) Mike Chancey (NFL) Wayne Stricklen (NC) Abe Jenkins (NC) (AL) Marc Haze (S/SEFL) Charles Barrett	803-926-5213 601-949-8277 404-573-6521 407-636-1421 704-529-0693 910-299-0326 334-265-1291 561-837-9649
Mintel	Bill Quinn	770-923-0304
Nortel ***Field Trial - Collocation (OEM) Physical Collocation only***	Joe Salazar	972-685-7587
Quality Telecommunications, Inc.	Jerry Miller	770-953-1410
Rapid Response Comm.	Ted Pellaux	423-546-2886
Reltec Services	Woody Bell	770-449-0840
Six "R" Comm., Inc.	Ken Koontz or Dick Phillips	704-289-5522
Tele-Tech Company	Rod Trawick	770-389-3043
Telpro Technologies, Inc.	Robert West, Jr.	404-629-1093
Trans Global Comm.	Dale White	407-290-1453
Volt Information Science	George Maquieira	908-245-0100
W. E. Tech, Inc.	Wes Evans	954-587-6996

Note:
The certification status of any listed vendor is subject to change monthly, therefore please ensure you have current information by contacting your BellSouth Collocation Coordinator. @This indicates a Certified vendor is temporarily unavailable for collocation selection.

Example
BellSouth Certified Switch Vendors
Engineering and Installation for Physical Collocation

Vendor	Contact	Phone
DSC Corporation (STP)	John Mastoras	214-491-1870
Ericsson(STP)	Karen A Caulk	972-583-5158
Fujitsu Network Communications, Inc. *Certified – Collocation (OEM) Broadband	J. Quinta Evans	770-246-4102
Lucent Technologies, Inc.	(SC) Adrian Dye	803-926-5213
	(MS)Larry Montgomery	601-949-8277
	(GA) Mike Chancey	404-573-6521
	(NFL) Wayne Stricklen	407-636-1421
	(NC) Abe Jenkins	704-529-0693
	(NC)	910-299-0326
	(AL) Marc Haze	334-265-1291
	(S/SEFL) Charles Barrett	561-837-9649
	(LA, TN, KY) Unknown	Use a number above
Nortel	Margaret Skeen	770-661-4303
Siemens Stromberg – Carlson	Manfred Schmidtk Installation	407-942-5665
	Karl Hoskins Engineering	561-955-8621

Note:
The certification status of any listed vendor is subject to change monthly, therefore please ensure you have current information by contacting your BellSouth Collocation Coordinator. @This indicates a Certified vendor is temporarily unavailable for collocation selection.

Example
BellSouth Certified Power Vendors
Engineering and Installation for Physical Collocation

Note: Installation of Power equipment requires special BellSouth conditions and approval.

Vendor	Contact	Phone
Charles E. Singleton	Sam Wetzel	305-960-0158
Reltec Services	Bob Dietz	216-353-2070
Six R Communications	Ken Kootnz	704-535-7607
Lucent Technologies, Inc.	(SC) Adrian Dye	803-926-5213
	(MS)Larry Montgomery	601-949-8277
	(GA) Mike Chancey	404-573-6521
	(NFL) Wayne Stricklen	407-636-1421
	(NC) Abe Jenkins	704-529-0693
	(NC)	910-299-0326
	(AL) Marc Haze	334-265-1291
	(S/SEFL) Charles Barrett	561-837-9649

Note:
The certification status of any listed vendor is subject to change monthly, therefore please ensure you have current information by contacting your BellSouth Collocation Coordinator. @This indicates a Certified vendor is temporarily unavailable for collocation selection.

SECTION 6

Exhibits

Example Letter: Request for Negotiations

(Date)

Mr. Jerry Hendrix
Senior Director - Marketing Interconnection Services
BellSouth Telecommunications, Inc.
675 W. Peachtree Street, N.E.
Room 34S91
Atlanta, Georgia 30375

Dear Mr. Hendrix:

(Company name) hereby requests to begin the negotiations process to reach a mutually acceptable Physical Collocation Agreement with BellSouth Telecommunications, Inc. in the state(s) of _____.

Please contact ***(name of your contact)*** at your earliest convenience to establish the appropriate company contacts and the desired procedural schedule necessary to implement the negotiation process.

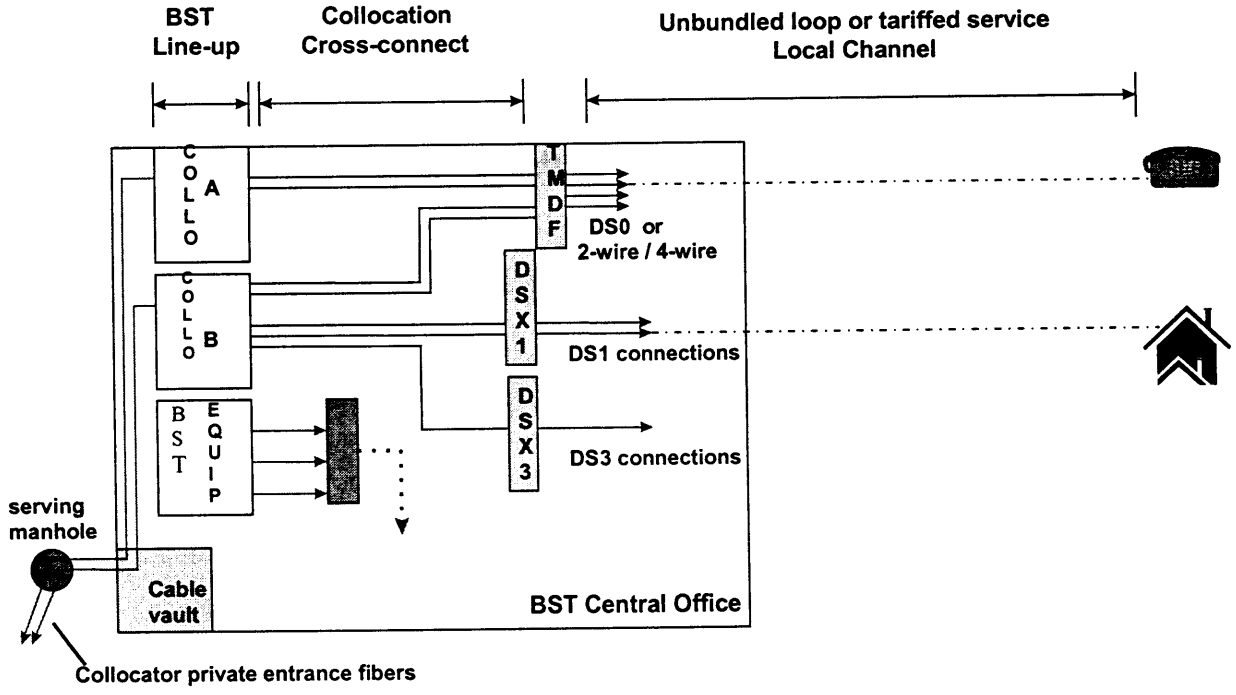
Sincerely,

Contact Name and Title
Company Name and Address
Contact Phone Number, Fax Number

Exhibits

Virtual Collocation Example Schematic

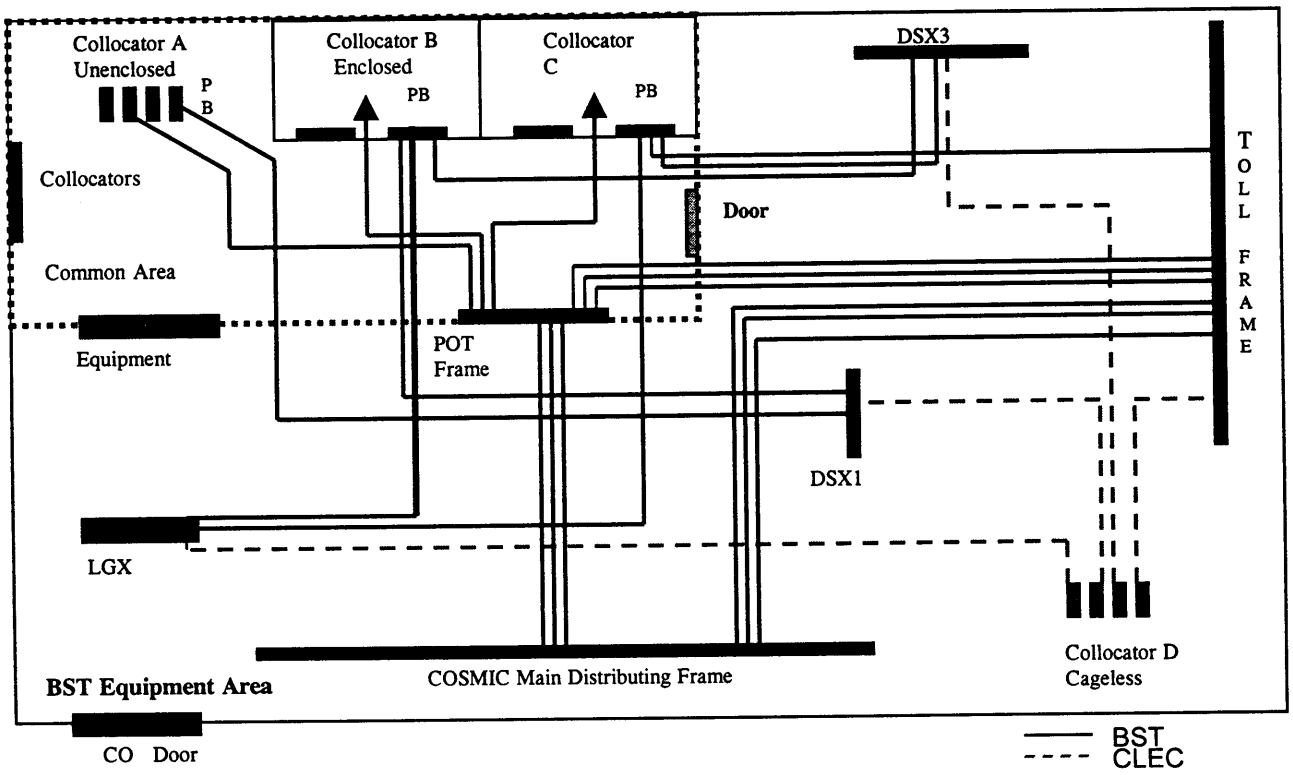
This schematic shows the placement of the Virtual Collocation equipment within the BellSouth line-up. The interconnection point between the collocator's equipment arrangement and BellSouth's network occurs at the frame (TMDF) or DSX (DSX1 or DSX3), depending on the service being interconnected. The "local channel" is shown as an example of the type of connection which can be made between a collocation arrangement and BellSouth's network but does not constitute the only option for such interconnection.



Exhibits

Physical Collocation Example Schematic

The example below illustrates the two types of Physical Collocation offered by BellSouth: Caged (enclosed) and Cageless (unenclosed). This Schematic shows the POT bay (PB) as an interconnection point for installations prior to June 1, 1999 and the distributing frame/DSX/LGX as the interconnection point for installations following June 1, 1999.



Exhibits

Available upon request:

BellSouth Standard Collocation Agreement

BSTEI Ordering Documents and Line by Line Instructions

BellSouth Provisioning Process Flow Diagram

Consideration of Environmental Conditions Guidelines

*** See the contacts located in Section 5 to obtain copies of the above.**

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - ALABAMA PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.08	NA
PE1PF	4 Wire Cross-Connect		$0.17	NA
PE1PG	DS1 Cross-Connect		$0.69	NA
PE1PH	DS3 Cross-Connect		$4.74	NA
PE1B2	2 Fiber Cross-Connect		$30.02	NA
PE1B4	4 Fiber Cross-Connect		$40.48	NA
AEH	Additional Engineering Fee **(Note 6)**	Per request, First half hour/Add'l Half hour		First / Additional Basic Time - $31.00 / $22.00 Overtime - $37.00 / $26.00
	Security Escort			
PE1BT	Basic Time	Per 1/2 hour/Additional Half-hour	NA	$43.47/$25.82
PE1OT	Overtime		NA	$55.25/$32.79
PE1PT	Premium Time		NA	$67.03/$39.76

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - ALABAMA PHYSICAL COLLOCATION (cont.)

Note(s):
N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee:** BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth assessment related to expenditure of capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Cross Connects**: The charges for cross connects are for orders placed electronically. Cross connect elements may also be ordered manually for which there is an additional charge per element.

		Disconnect Charges
	First / Additional	First / Additional
2-wire	$34.03 / $32.67	$14.48 / $13.11
4-wire	$34.28 / $32.85	$14.55 / $13.12
DS-1	$64.08 / $44.98	$14.58 / $13.23
DS-3	$61.07 / $43.08	$16.66 / $13.49

(5) **Co-Carrier Cross-Connect:** As stated in Section 1.2 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the

Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross connection requested, the recurring charges as stated in this Exhibit A shall apply.

(6) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - FLORIDA PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	$15.53	$3,248.00
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,400.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1675.00
	Cable Racking / Fiber Duct	Per arrangement, square foot		ICB
	Frame / Aisle Lighting	Per arrangement, square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Requested Prior to 6/1/99*			
PE1BW	Wire Cage	Per first 100 sq. Ft.	$41.99	NA
PE1BC	Gypsum Board Cage	Per first 100 sq. Ft.	$84.10	NA
PE1BF	Fire Rated Cage	Per first 100 sq. Ft.	$99.73	NA
PE1CW	Wire Cage	Per add'l 50 sq. Ft.	$4.14	NA
PE1CC	Gypsum Board Cage	Per add'l 50 sq. Ft.	$9.35	NA
PE1CF	Fire Rated Cage	Per add'l 50 sq. Ft.	$11.30	NA
PE1PJ	Floor Space	Per sq. Ft.	$4.25	NA

PE1BD	Cable Installation	Per Cable	$2.77	$1,056.00
PE1PM	Cable Support Structure		$22.94	NA

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - FLORIDA
PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1PL	Power			
	-48V DC Power	Per amp	$7.14	ICB
	120V AC Power single phase *	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB
	Cross Connects **(Note 4)**	Per Cross Connect		
PE12C	2-wire		$.0524	$11.57
PE14C	4-wire		$.0524	$11.57
PE11S	DS-1/DCS		$8.085	$69.64
PE11X	DS-1/DSX		$.4110	$69.64
PE13S	DS-3/DCS		$56.97	$528.00
PE13X	DS-3/DSX		$10.06	$528.00
PE1F2	Optical Cross Connects		$6.46	$2,431.00
	Co-Carrier Cross-Connect **(Note 5)**			
PE1ES	Fiber Cable Support Structure, existing	Per linear foot	$0.06	NA
PE1DS	Copper or Coaxial Cable Support Structure, existing	Per linear foot	$0.03	NA
(TBD)	Cable Support Structure Construction, new	Per new construction	NA	ICB
PE1A2	Security Access System			
	Security System*	Per Premises	$95.00	
	New Access Card Activation*	Per request-5 cards	NA	$85.12
	Administrative change, existing card*	Per Card		$35.00
	Replace lost or stolen card*	Per Card		$250.00

	Space Availability Report *	Per Premises Requested		$550.00
	POT Bay (**Note 6**)		NA	NA

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - FLORIDA PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
AEH	Additional Engineering Fee **(Note 7)**	Per request, First half hour/Add'l half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00
	Security Escort			
	Basic Time	Per ¼ hour	NA	$10.89
	Overtime	Per ¼ hour	NA	$13.64
	Premium Time	Per ¼ hour	NA	$16.40

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. BellSouth will pro rate the total shared space preparation costs among the collocators at each location based on the amount of square footage occupied by each collocator. This charge may vary depending on the location and type of arrangement requested.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Cross Connects**: Rates shown are the equivalent per cross connect rates based on the Florida PSC Ordered rates as follows:

Cross Connects	Per Cross Connect	RC	NRC
2-wire	Per 100 X-Connects	$5.24	$1,157.00
4-wire	Per 100 X-Connects	$5.24	$1,157.00
DS-1/DCS	Per 28 X-Connects	$226.39	$1,950.00
DS-1/DSX	Per 28 X-Connects	$11.51	$1,950.00
DS-3/DCS	Per Cross Connect	$56.97	$ 528.00
DS-3/DSX	Per Cross Connect	$10.06	$528.00
Optical Cross Connects	Per Cross Connect	$6.46	$2,431.00

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - FLORIDA PHYSICAL COLLOCATION (cont.)

(5) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the direct connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the direct connection requested, the recurring charges as stated in this Exhibit A shall apply.

(6) **POT Bays**: BellSouth's Florida specific rates were established in the Florida Public Service Commission Docket No. 960833. The Commission did not set permanent rates for POT Bays, given the assumption by the parties to the Proceeding that they will always provide their own POT Bays. It will be necessary for CLEC-1 to provide its own POT Bays per BellSouth specifications and provide the necessary information from which BellSouth can inventory.

(7) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - GEORGIA
PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and subject to true-up

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$3,850.00
PE1CA	Subsequent Application Fee (**Note 1**)	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee (**Note 2**)	Per square foot	NA	$100.00
	Space Enclosure (**Note 3**)			
	Cages Prior to 6/1/99			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$170.64	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$17.33	NA
	Floor Space			
PE1PJ	Zone A	Per square foot	$7.50	NA
PE1PK	Zone B	Per square foot	$6.75	NA
PE1BD	Cable Installation	Per Cable	NA	$2,750.00
PE1PM	Cable Support Structure	Per entrance cable	$13.35	NA
PE1PL	Power			
	-48V DC Power	Per amp	$7.14	ICB
	120V AC Power single phase*	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB
	Cross Connects	Per Cross Connect		First /
PE1P2	2-wire		$.30	Additional
PE1P4	4-wire		$.50	$12.60 / $12.60
PE1P1	DS-1		$8.00	$12.60 / $12.60
PE1P3	DS-3		$72.00	$155.00 /
PE1F2	2-fiber		$15.64	$27.00
PE1F4	4-fiber		$28.11	$155.00 /

				$27.00 $41.56 / $29.82 $50.53 / $38.78

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - GEORGIA
PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Co-Carrier Cross-Connect **(Note 4)**			
PE1ES	Fiber Cable Support Structure, existing	Per linear foot	$0.06	NA
PE1DS	Copper or Coaxial Cable Support Structure, existing	Per linear foot	$0.03	NA
(TBD)	Cable Support Structure Construction, new	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system*	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation*	Per Card		$35.00
	Administrative change, existing card*	Per Card		$250.00
	Replace lost or stolen card*			
	Space Availability Report*	Per Premises Requested		$550.00
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.40	NA
PE1PF	4 Wire Cross-Connect		$1.20	NA
PE1PG	DS1 Cross-Connect		$1.20	NA
PE1PH	DS3 Cross-Connect		$8.00	NA
PE1B2	2 Fiber Cross-Connect		$38.79	NA
PE1B4	4 Fiber Cross-Connect		$52.31	NA
AEH	Additional Engineering Fee **(Note 5)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00
	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$41.00/$25.00
PE1OT	Overtime	hour/Additional	NA	$48.00/$30.00

PE1PT	Premium Time	Half-hour	NA	$55.00/$35.00

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - GEORGIA PHYSICAL COLLOCATION (cont.)

Note(s)

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers a portion of costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. This is a set fee of $100 per square foot as established by the Georgia Public Service Commission Order in Docket No. 7061-U. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a one-time fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(5) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or

augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - KENTUCKY PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$9,926.72
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,100.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$201.02	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$20.42	NA
PE1PJ	Floor Space	Per square foot	$5.00	NA
PE1BD	Cable Installation	Per Cable	NA	$2,327.08
PE1PM	Cable Support Structure	Per entrance cable	$24.23	NA

PE1PL	Power -48V DC Power 120V AC Power single phase* 240V AC Power single phase* 120V AC Power three phase* 277V AC Power three phase*	 Per amp Per breaker amp Per breaker amp Per breaker amp Per breaker amp	 $7.68 $5.50 $11.00 $16.50 $38.20	 ICB ICB ICB ICB ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - KENTUCKY PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects	Per Cross		First / Additional
PE1P2	2-wire	Connect	$.31	$54.21/$51.07
PE1P4	4-wire		$.62	$54.23/$50.96
PE1P1	DS-1		$1.92	$99.23/$69.15
PE1P3	DS-3		$39.94	$97.48/$66.90
PE1F2	2-fiber		$15.64	$41.56/$29.82
PE1F4	4-fiber		$28.11	$50.53/$38.78
	Co-Carrier Cross-Connect **(Note 5)**			
PE1ES Fiber	Fiber Arrangement Cable Support Structure	Per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial Arrangement	Per linear foot (existing)	$0.03	NA
TBD	Cable Support Structure Construction	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation	Per Card		$35.00
	Administrative change, existing card	Per Card		$250.00
	Replace lost or stolen card			
TBD	Space Availability Report	Per Premises Requested	NA	$550.00
	POT Bay Arrangements **Prior to 6/1/99**	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.06	NA
PE1PF	4 Wire Cross-Connect		$0.15	NA
PE1PG	DS1 Cross-Connect		$0.58	NA
PE1PH	DS3 Cross-Connect		$4.51	NA

PE1B2	2 Fiber Cross-Connect		$38.79	NA
PE1B4	4 Fiber Cross-Connect		$52.31	NA
	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$56.09/$31.99
PE1OT	Overtime	hour/Additional	NA	$67.75/$39.00
PE1PT	Premium Time	Half-hour	NA	$79.41/$46.01

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - KENTUCKY PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
AEH	Additional Engineering Fee **(Note 5)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee:** The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a one-time fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Co-Carrier Cross-Connect.** As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation

Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(5) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – LOUISIANA PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$4,910.00
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,100.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$197.55	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$20.07	NA
PE1PJ	Floor Space	Per square foot	$4.01	NA
PE1BD	Cable Installation	Per Cable	NA	$1,706.00 Disconnect charge $36.00
PE1PM	Cable Support Structure	Per entrance cable	$24.05	NA

PE1PL	Power			
	-48V DC Power	Per amp	$7.15	ICB
	120V AC Power single phase*	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - LOUISIANA
PHYSICAL COLLOCATION (cont.)

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects (**Note 4**)	Per Cross		First / Additional
PE1P2	2-wire	Connect	$.26	$23.04/$22.11
PE1P4	4-wire		$.52	$23.23/$22.24
PE1P1	DS-1		$2.03	$43.61/$30.60
PE1P3	DS-3		$36.27	$41.46/$29.20
PE1F2	2-fiber		$19.13	$41.07/$29.63
PE1F4	4-fiber		$34.38	$49.81/$38.37
				Disconnect charges
				First / Additional
	2-wire			$9.48/$8.54
	4-wire			$9.53/$8.55
	DS-1			$9.56/$8.63
	DS-3			$11.06/$8.86
	2-fiber			$12.84/$10.29
	4-fiber			$16.75/14.20
	Co-Carrier Cross-Connect (**Note 5**)			
PE1ES Fiber	Fiber Arrangement Cable Support Structure	Per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial Arrangement	Per linear foot (existing)	$0.03	NA
TBD	Cable Support Structure Construction	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system*	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation*	Per Card		$35.00
	Administrative change, existing card*	Per Card		$250.00
	Replace lost or stolen card			

TBD	Space Availability Report*	Per Premises Requested		$550.00

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - LOUISIANA PHYSICAL COLLOCATION (cont.)

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.0776	NA
PE1PF	4 Wire Cross-Connect		$0.1552	NA
PE1PG	DS1 Cross-Connect		$0.6406	NA
PE1PH	DS3 Cross-Connect		$4.75	NA
PE1B2	2 Fiber Cross-Connect		$47.44	NA
PE1B4	4 Fiber Cross-Connect		$63.97	NA
	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$32.35/$19.95
PE1OT	Overtime	hour/Additional	NA	$40.50/$25.00
PE1PT	Premium Time	Half-hour	NA	$48.66/$30.05
AEH	Additional Engineering Fee **(Note 6)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical

collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - LOUISIANA PHYSICAL COLLOCATION (cont.)

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Cross Connects**: The charges for cross connects are for orders placed electronically. Cross connect elements may also be ordered manually for which there is an additional charge per element.

		Disconnect Charges
	First / Additional	First / Additional
2-wire	$24.92/$23.99	$10.56/$9.62
4-wire	$25.11/$24.12	$10.61/$9.63
DS-1	$45.49/$32.48	$10.64/$9.71
DS-3	$43.34/$31.08	$12.14/$9.94

(5) **Co-Carrier Cross-Connect.** As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(6) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – MISSISSIPPI PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$6,993.00 Disconnect charge $1.70
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,100.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$205.08	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$20.83	NA
PE1PJ	Floor Space	Per square foot	$3.45	Disconnect charge $53.24
PE1BD	Cable Installation	Per Cable	NA	$2,419.00

PE1PM	Cable Support Structure	Per entrance cable	$22.90	NA
PE1PL	Power			
	-48V DC Power	Per amp	$6.93	ICB
	120V AC Power single phase*	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - MISSISSIPPI PHYSICAL COLLOCATION (cont.)

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects (**Note 4**)	Per Cross		First / Additional
PE1P2	2-wire	Connect	$.3996	$30.93/$29.59
PE1P4	4-wire		$.7992	$31.17/$29.77
PE1P1	DS-1		$2.90	$60.42/$41.68
PE1P3	DS-3		$53.31	$57.45/$39.81
PE1F2	2-fiber		$15.64	$41.56/$29.82
PE1F4	4-fiber		$28.11	$50.53/$38.78
				Disconnect Charges
				First / Additional
	2-wire			$12.76/$11.43
	4-wire			$12.83/$11.43
	DS-1			$12.87/$11.54
	DS-3			$14.92/$11.80
	2-fiber			$12.96/$10.34
	4-fiber			$16.97/$14.35
	Co-Carrier Cross-Connect (**Note 5**)			
PE1ES Fiber	Fiber Arrangement Cable Support Structure	Per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial Arrangement	Per linear foot (existing)	$0.03	NA
TBD	Cable Support Structure Construction	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system*	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation*	Per Card		$35.00
	Administrative change, existing card*	Per Card		$250.00
	Replace lost or stolen card			

TBD	Space Availability Report*	Per Premises Requested		$550.00

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - MISSISSIPPI PHYSICAL COLLOCATION (cont.)

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.1195	NA
PE1PF	4 Wire Cross-Connect		$0.2389	NA
PE1PG	DS1 Cross-Connect		$0.9862	NA
PE1PH	DS3 Cross-Connect		$5.81	NA
PE1B2	2 Fiber Cross-Connect		$38.79	NA
PE1B4	4 Fiber Cross-Connect		$52.31	NA
AEH	Additional Engineering Fee **(Note 6)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00
	Security Escort			
PE1BT	Basic Time	Per 1/2 hour/Additional Half-hour	NA	$42.87/$25.54
PE1OT	Overtime		NA	$54.43/$32.41
PE1PT	Premium Time		NA	$65.99/$39.28

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for

non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES - MISSISSIPPI PHYSICAL COLLOCATION (cont.)

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Cross Connects**: The charges for cross connects are for orders placed electronically. Cross connect elements may also be ordered manually for which there is an additional charge per element.

		Disconnect Charges
	First / Additional	First / Additional
2-wire	$33.58 / $32.24	$14.27 / $12.94
4-wire	$33.82 / $32.42	$14.34 / $12.94
DS-1	$63.07 / $44.33	$14.38 / $13.05
DS-3	$60.10 / $42.46	$16.43 / $13.31

(5) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(6) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations for existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – NORTH CAROLINA*
PHYSICAL COLLOCATION

***Rates are interim and subject to true-up.**

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$3,850.00
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1,600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC	Per ton (one ton minimum)		$2,100.00
	Ground Bar	Per Connection		$720.00
	Project Management	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$146.80	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$14.91	NA
PE1PJ	Floor Space	Per square foot	$7.50	NA
PE1BD	Cable Installation	Per Cable	NA	$2,750.00
PE1PM	Cable Support Structure	Per entrance cable	$13.35	NA
PE1PL	Power			

	-48V DC Power	Per amp	$5.00	ICB
	120V AC Power single phase	Per breaker amp	$5.50	ICB
	240V AC Power single phase	Per breaker amp	$11.00	ICB
	120V AC Power three phase	Per breaker amp	$16.50	ICB
	277V AC Power three phase	Per breaker amp	$38.20	ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – NORTH CAROLINA* PHYSICAL COLLOCATION (cont.)

***Rates are interim and subject to true-up.**

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects	Per Cross		First / Additional
PE1P2	2-wire	Connect	$.30	$19.20/$19.20
PE1P4	4-wire		$.50	$19.20/$19.20
PE1P1	DS-1		$8.00	$155.00/$27.00
PE1P3	DS-3		$72.00	$155.00/$27.00
PE1F2	2-fiber		$15.99	$67.34/$48.55
PE1F4	4-fiber		$28.74	$82.35/$63.56
	Co-Carrier Cross-Connect **(Note 4)**			
PE1ES Fiber	Fiber Arrangement Cable Support Structure	Per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial Arrangement	Per linear foot (existing)	$0.03	NA
TBD	Cable Support Structure Construction	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation	Per Card		$35.00
	Administrative change, existing card	Per Card		$250.00
	Replace lost or stolen card			
TBD	Space Availability Report	Per Premises Requested		$550.00
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$0.40	NA
PE1PF	4 Wire Cross-Connect		$1.20	NA
PE1PG	DS1 Cross-Connect		$1.20	NA

PE1PH	DS3 Cross-Connect		$8.00	NA
PE1B2	2 Fiber Cross-Connect		$39.67	NA
PE1B4	4 Fiber Cross-Connect		$53.49	NA
	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$41.00/$25.00
PE1OT	Overtime	hour/Additional	NA	$48.00/$30.00
PE1PT	Premium Time	Half-hour	NA	$55.00/$35.00

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – NORTH CAROLINA PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
AEH	Additional Engineering Fee **(Note 5)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation

Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(5) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations for existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – SOUTH CAROLINA PHYSICAL COLLOCATION

Rates marked with an asterisk (*) are interim and are subject to true-up.

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$4,850.00
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1600.00 Minimum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC*	Per ton (one ton minimum)		$2,100.00
	Ground Bar*	Per Connection		$720.00
	Project Management*	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications			ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$224.60	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$22.81	NA
PE1PJ	Floor Space	Per square foot	$3.90	NA
PE1BD	Cable Installation	Per Cable	NA	$2,217.00
PE1PM	Cable Support Structure	Per entrance cable	$24.55	NA

PE1PL	Power			
	-48V DC Power	Per amp	$7.09	ICB
	120V AC Power single phase*	Per breaker amp	$5.50	ICB
	240V AC Power single phase*	Per breaker amp	$11.00	ICB
	120V AC Power three phase*	Per breaker amp	$16.50	ICB
	277V AC Power three phase*	Per breaker amp	$38.20	ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – SOUTH CAROLINA PHYSICAL COLLOCATION (cont.)

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects (**Note 4**)			First / Additional
PE1P2	2-wire	Per Cross Connect	$.3648	$41.50/$38.94
PE1P4	4-wire	Per Cross Connect	$.7297	$41.56/$38.90
PE1P1	DS-1	Per Cross Connect	$2.70	$70.79/$50.78
PE1P3	DS-3	Per Cross Connect	$49.24	$69.60/$49.14
PE1F2	2-fiber	Per Cross Connect	$15.06	$69.28/$48.89
PE1F4	4-fiber	Per Cross Connect	$27.08	$84.07/$63.68
	Co-Carrier Cross-Connect (**Note 5**)			
PE1ES Fiber	Fiber Arrangement Cable Support Structure	Per linear foot (existing)	$0.06	NA
PE1DS Copper	Copper or Coaxial Arrangement	Per linear foot (existing)	$0.03	NA
TBD	Cable Support Structure Construction	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system*	Per Premises	$52.00	
	New Access Card Activation*	Per Card		$55.00
	Administrative change, existing card*	Per Card		$35.00
	Replace lost or stolen card	Per Card		$250.00
TBD	Space Availability Report*	Per Premises Requested		$550.00
	POT Bay Arrangements *Prior to 6/1/99*	Per Cross Connect		
PE1PE	2 Wire Cross-Connect		$.1091	NA
PE1PF	4 Wire Cross-Connect		$.2181	NA
PE1PG	DS1 Cross-Connect		$.9004	NA
PE1PH	DS3 Cross-Connect		$5.64	NA
PE1B2	2 Fiber Cross-Connect		$37.36	NA
PE1B4	4 Fiber Cross-Connect		$5038.	NA

	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$43.00/$25.57
PE1OT	Overtime	hour/Additional	NA	$54.62/$32.46
PE1PT	Premium Time	Half-hour	NA	$66.24/$39.35

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – SOUTH CAROLINA PHYSICAL COLLOCATION (cont.)

AEH	Additional Engineering Fee **(Note 6)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee:** The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

(4) **Cross Connects**: The charges for cross connects are for orders placed electronically. Cross connect elements may also be ordered manually for which there is an additional charge per element.

	First / Additional
2-wire	$46.66 / $44.10

4-wire	$46.68 / $44.02
DS-1	$75.88 / $55.87
DS-3	$74.69 / $54.23

(5) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – SOUTH CAROLINA PHYSICAL COLLOCATION (cont.)

(6) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations to existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – TENNESSEE*
PHYSICAL COLLOCATION

***All Rates are interim and subject to true-up.**

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
PE1BA	Application Fee	Per Request	NA	$3,850.00
PE1CA	Subsequent Application Fee **(Note 1)**	Per Request	NA	$1,600.00 Minumum
PE1BB	Space Preparation Fee **(Note 2)**			
	Mechanical / HVAC	Per ton (one ton minimum)		$2,100.00
	Ground Bar	Per Connection		$720.00
	Project Management	Per arrangement		$1,675.00
	Cable Racking/Fiber Duct	Per arrangement, per square foot		ICB
	Frame / Aisle lighting	Per arrangement, per square foot		ICB
	Framework Ground Conductors	Per arrangement		ICB
	Extraordinary Modifications	Per arrangement		ICB
	Space Enclosure **(Note 3)** *Prior to 6/1/99*			
PE1BW	Welded Wire-mesh	Per first 100 sq. ft.	$190.79	NA
PE1CW	Welded Wire-mesh	Per add'l 50 sq. ft.	$19.38	NA
PE1PJ	Floor Space	Per square foot	$7.50	NA
PE1BD	Cable Installation	Per Cable	NA	$2,750.00
PE1PM	Cable Support Structure	Per entrance cable	$13.35	NA
PE1PL	Power			

	-48V DC Power	Per amp	$5.00	ICB
	120V AC Power single phase	Per breaker amp	$5.50	ICB
	240V AC Power single phase	Per breaker amp	$11.00	ICB
	120V AC Power three phase	Per breaker amp	$16.50	ICB
	277V AC Power three phase	Per breaker amp	$38.20	ICB

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – TENNESSEE*
PHYSICAL COLLOCATION (cont.)

***Rates are interim and subject to true-up.**

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Cross Connects	Per Cross Connect		First / Additional
PE1P2	2-wire		$.30	$19.20/$19.20
PE1P4	4-wire		$.50	$19.20/$19.20
PE1P1	DS-1		$8.00	$155.00/$27.00
PE1P3	DS-3		$72.00	$155.00/$27.00
PE1F2	2-fiber		$15.64	$41.56/$29.82
PE1F4	4-fiber		$28.11	$50.53/$38.78
	Co-Carrier Cross-Connect **(Note 4)**			
PE1ES Fiber	Fiber cable support structure, existing	Per linear foot	$0.06	NA
PE1DS Copper	Copper or Coaxial cable support structure, existing	Per linear foot	$0.03	NA
TBD	Cable Support Structure Construction (new)	Per new construction	NA	ICB
PE1A1	Security Access System			
	Security system	Per Premises	$52.00	
	New Access Card	Per Card		$55.00
	Activation	Per Card		$35.00
	Administrative change, existing card	Per Card		$250.00
	Replace lost or stolen card			
TBD	Space Availability Report	Per Premises Requested		$550.00
	POT Bay Arrangements *Prior to 6/1/99*			
PE1PE	2 Wire Cross-Connect	Per Cross Connect	$0.40	NA
PE1PF	4 Wire Cross-Connect	Per Cross Connect	$1.20	NA
PE1PG	DS1 Cross-Connect	Per Cross Connect	$1.20	NA

PE1PH	DS3 Cross-Connect	Per Cross Connect	$8.00	NA
PE1B2PE	2 Fiber Cross-Connect	Per Cross Connect	$38.79	NA
1B4	4 Fiber Cross-Connect	Per Cross Connect	$52.31	NA

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – TENNESSEE*
PHYSICAL COLLOCATION (cont.)

***Rates are interim and subject to true-up.**

USOC	Rate Element Description	Unit	Recurring Rate (RC)	Non-Recurring Rate (NRC)
	Security Escort			
PE1BT	Basic Time	Per 1/2	NA	$41.00/$25.00
PE1OT	Overtime	hour/Additional	NA	$48.00/$30.00
PE1PT	Premium Time	Half-hour	NA	$55.00/$35.00
AEH	Additional Engineering Fee **(Note 5)**	Per request, First half hour/Add'l Half hour		First /Add'l Basic Time - $31.00/$22.00 Overtime - $37.00/$26.00

Note(s):

N/A refers to rate elements which do not have a negotiated rate.

(1) **Subsequent Application Fee**: BellSouth requires the submission of an Application Fee for modifications to an existing arrangement. However, when the modifications do not require BellSouth to expend capital, BellSouth will assess the Subsequent Application Fee in lieu of the Application Fee. Proposed modifications that could result in assessment of a Subsequent Application Fee would cause BellSouth to analyze the following but are not limited to: floor loading changes, changes to HVAC requirements, power requirement changes which may result in a power plant upgrade, environmental or safety requirements, or equipment relocation. Should the Subsequent Application Fee not be included as part of this Attachment, CLEC-1 will be assessed the full Application Fee for all subsequent activity for completed arrangements.

(2) **Space Preparation Fee**: The Space Preparation Fee is a one-time fee, assessed per arrangement, per location. It recovers the costs associated with the shared physical collocation area within a Premises, which include survey, engineering, design and modification costs for network, building and support systems. In the event CLEC-1 opts for non-enclosed space, the space preparation fee will be assessed based on the total floor space dedicated to CLEC-1 as prescribed in Section 7 of the Collocation Attachment.

(3) **Space Enclosure Fee**: For cages requested prior to June 1, 1999, the Space Enclosure Construction Fee is a monthly recurring fee, assessed per enclosure, per location with a one-hundred (100) square foot minimum enclosure. It recovers costs associated with providing an optional equipment arrangement enclosure, which include architectural and engineering fees, materials, and installation costs. The cost for additional square feet is applicable only when ordered with the first 100 square feet and must be requested in fifty (50) square foot increments. CLEC-1 may, at its option, arrange with a BellSouth certified contractor to

construct the space enclosure in accordance with BellSouth's guidelines and specifications. In this event, the contractor shall directly bill CLEC-1 for the space enclosure, and this fee shall not be applicable.

EXHIBIT A: BELLSOUTH/CLEC-1 RATES – TENNESSEE*
PHYSICAL COLLOCATION (cont.)

(4) **Co-Carrier Cross-Connect**. As stated in Section 5 of the Collocation Attachment, CLEC-1 may connect to other CLECs within the designated Premises in addition to, and not in lieu of, interconnection to BellSouth services and facilities. Where BellSouth must construct a cable rack structure to house the co-Carrier cross-connection, construction charges will be applied on an individual case basis as described in Section 5.6.1 of the Collocation Attachment. BellSouth shall provide an estimate of these charges in the Application Response. Where an existing cable rack structure is in place and has sufficient capacity to accommodate the co-Carrier cross-connection requested, the recurring charges as stated in this Exhibit A shall apply.

(5) **Additional Engineering Fee**: BellSouth's additional engineering, and other labor costs associated with handling CLEC-1-requested modifications to requests in progress or augmentations for existing arrangements shall be recovered as Additional Engineering charges, under provisions in BellSouth's F.C.C. Number 1 Tariff, Sections 13.1 and 13.2. Should Additional Engineering rates not be included, CLEC-1 agrees not to make changes to collocation arrangement after a Bona Fide Firm Order is submitted.

EXHIBIT B
Page 1 of 4

ENVIRONMENTAL AND SAFETY PRINCIPLES

The following principles provide basic guidance on environmental and safety issues when applying for and establishing Physical Collocation arrangements.

1. GENERAL PRINCIPLES

1.1 Compliance with Applicable Law. BellSouth and CLEC-1 agree to comply with applicable federal, state, and local environmental and safety laws and regulations including U.S. Environmental Protection Agency (USEPA) regulations issued under the Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Superfund Amendments and Reauthorization Act (SARA), the Toxic Substances Control Act (TSCA), and OSHA regulations issued under the Occupational Safety and Health Act of 1970, as amended and NFPA and National Electrical Codes (NEC) and the NESC ("Applicable Laws"). Each party shall notify the other if compliance inspections are conducted by regulatory agencies and/or citations are issued that relate to any aspect of this agreement.

1.2 Notice. BellSouth and CLEC-1 shall provide notice to the other, including Material Safety Data Sheets (MSDSs), of known and recognized physical hazards or Hazardous Chemicals existing on site or brought on site. Each party is required to provide specific notice for known potential Imminent Danger conditions. CLEC-1 should contact 1-800-743-6737 for BellSouth MSDS sheets.

1.3 Practices/Procedures. BellSouth may make available additional environmental control procedures for CLEC-1 to follow when working at a BellSouth Premises (See Section 2, below). These practices/procedures will represent the regular work practices required to be followed by the employees and contractors of BellSouth for environmental protection. CLEC-1 will require its contractors, agents and others accessing the BellSouth Premises to comply with these practices. Section 2 lists the Environmental categories where BST practices should be followed by CLEC when operating in the BellSouth Premises.

1.4 Environmental and Safety Inspections. BellSouth reserves the right to inspect the CLEC-1 space with proper notification. BellSouth reserves the right to stop any CLEC-1 work operation that imposes Imminent Danger to the environment, employees or other persons in the area or Facility.

1.5 Hazardous Materials Brought On Site. Any hazardous materials brought into, used,

stored or abandoned at the BellSouth Premises by CLEC-1 are owned by CLEC-1. CLEC-1 will indemnify BellSouth for claims, lawsuits or damages to persons or property caused by these materials. Without prior written BellSouth approval, no substantial new safety or environmental hazards can be created by CLEC-1 or different hazardous materials used by CLEC-1 at BellSouth Facility. CLEC-1 must demonstrate adequate emergency response capabilities for its materials used or remaining at the BellSouth Facility.

1.6 Spills and Releases. When contamination is discovered at a BellSouth Premises, the party discovering the condition must notify BellSouth. All Spills or Releases of regulated materials will immediately be reported by CLEC-1 to BellSouth.

1.7 Coordinated Environmental Plans and Permits. BellSouth and CLEC-1 will coordinate plans, permits or information required to be submitted to government agencies, such as emergency response plans, spill prevention control and countermeasures (SPCC) plans and community reporting. If fees are associated with filing, BellSouth and CLEC-1 will develop a cost sharing procedure. If BellSouth's permit or EPA identification number must be used, CLEC-1 must comply with all of BellSouth's permit conditions and environmental processes, including environmental "best management practices (BMP)" (see Section 2, below) and/or selection of BST disposition vendors and disposal sites.

1.8 Environmental and Safety Indemnification. BellSouth and CLEC-1 shall indemnify, defend and hold harmless the other party from and against any claims (including, without limitation, third-party claims for personal injury or death or real or personal property damage), judgments, damages, (including direct and indirect damages, and punitive damages), penalties, fines, forfeitures, costs, liabilities, interest and losses arising in connection with the violation or alleged violation of any Applicable Law or contractual obligation or the presence or alleged presence of contamination arising out of the acts or omissions of the indemnifying party, its agents, contractors, or employees concerning its operations at the Facility.

2. CATEGORIES FOR CONSIDERATION OF ENVIRONMENTAL ISSUES

When performing functions that fall under the following Environmental categories on BellSouth's Premises, CLEC-1 agrees to comply with the applicable sections of the current issue of BellSouth's Environmental and Safety Methods and Procedures (M&Ps), incorporated herein by this reference. CLEC-1 further agrees to cooperate with BellSouth to ensure that CLEC-1's employees, agents, and/or subcontractors are knowledgeable of and satisfy those provisions of BellSouth's Environmental M&Ps which apply to the specific Environmental function being performed by CLEC-1, its employees, agents and/or subcontractors.

The most current version of reference documentation must be requested from BellSouth.

2. Categories for Consideration of Environmental Issues (cont.)

ENVIRONMENTAL CATEGORIES	ENVIRONMENTAL ISSUES	ADDRESSED BY THE FOLLOWING DOCUMENTATION
Disposal of hazardous material or other regulated material (e.g., batteries, fluorescent tubes, solvents & cleaning materials)	Pollution liability insurance EVET approval of contractor	Std T&C 450 GU-BTEN-001BT, Chapter 4 Std T&C 660-3 GU-BTEN-001BT, Chapter 10
Emergency response	Hazmat/waste release/spill firesafety emergency	GU-BTEN-001BT, Chapter Building Emergency Operations Plan (EOP) (specific to Premises)
Contract labor/outsourcing for services with environmental implications to be performed on BellSouth Premises (e.g., disposition of hazardous material/waste; maintenance of storage tanks)	Performance of services in accordance with BST's environmental M&Ps Insurance	Std T&C 450 Std T&C 450-B (Contact E/S or your DEC/LDEC for copy of appropriate E/S M&Ps.) Std T&C 660
Transportation of hazardous material	Pollution liability insurance EVET approval of contractor	Std T&C 450 GU-BTEN-001BT, Chapter 4 Std T&C 660-3 GU-BTEN-001BT, Chapter 10
Maintenance/operations work which may produce a waste Other maintenance work	Protection of BST employees and equipment	Std T&C 450 GU-BTEN-001BT, Chapter 10 29CFR 1910.147 29CFR 1910 Subpart O
Janitorial services	All waste removal and disposal must conform to all applicable federal, state and local	P&SM Manager - Procurement GU-BTEN-001BT, Chapter 4, GU-BTEN-001BT, Chapter 3

	regulations All HazMat & Waste Asbestos notification protection of BST employees and equipment	BSP 010-170-001BS (Hazcom)
Manhole cleaning	Pollution liability insurance Manhole entry requirements EVET approval of contractor	Std T&C 450 Std T&C 660-3 BSP 620-145-011PR Issue A, August 1996 GU-BTEN-001BT, Chapter 10 RL9706008BT
Removing or disturbing building materials that may contain asbestos	Asbestos work practices	GU-BTEN-001BT, Chapter 3

3. DEFINITIONS

Generator. Under RCRA, the person whose act produces a Hazardous Waste, as defined in 40 CFR 261, or whose act first causes a Hazardous Waste to become subject to regulation. The Generator is legally responsible for the proper management and disposal of Hazardous Wastes in accordance with regulations.

Hazardous Chemical. As defined in the U.S. Occupational Safety and Health (OSHA) hazard communication standard (29 CFR 1910.1200), any chemical which is a health hazard or physical hazard.

Hazardous Waste. As defined in section 1004 of RCRA.

Imminent Danger. Any conditions or practices at a facility which are such that a danger exists which could reasonably be expected to cause immediate death or serious harm to people or immediate significant damage to the environment or natural resources.

Spill or Release. As defined in Section 101 of CERCLA.

4. ACRONYMS

DEC/LDEC - Department Environmental Coordinator/Local Department Environmental Coordinator

GU-BTEN-001BT - BellSouth Environmental Methods and Procedures

EVET - Environmental Vendor Evaluation Team

P&SM - Property & Services Management

Std. T&C - Standard Terms & Conditions

NESC - National Electrical Safety Codes

REQUEST: Produce any and all documents filed by BellSouth in any generic collocation proceeding in Tennessee.

RESPONSE: BellSouth objects to this request for production on the grounds that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. BellSouth further objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority and thus are publicly available. Subject to and without waiving these objections, BellSouth states that it is unaware of any generic collocation proceeding in Tennessee.

REQUEST: Produce all documents that support or refer or relate to the recurring and nonrecurring rates you contend Intermedia should pay for frame relay elements necessary to provide packet-switched services in Tennessee, including the User-to-Network Interface (UNI), Network-to-Network Interface (NNI), and the Data Link Control Identifiers (DLCI) and Committed Information Rates (CIR).

RESPONSE: Although BellSouth has performed UNE cost studies for Frame Relay, the FCC's UNE Remand Order has since specified that Frame Relay should not be unbundled. Nevertheless, see BellSouth's Cost Study Filings provided in BellSouth's responses to Intermedia's 1st Request for Production, Item Nos. 1 and 43.

REQUEST: Produce all documents that refer or relate to any request by telecommunications carriers, other than Intermedia, to provide them with an Enhanced Extended Link (EEL), as well as all documents referring or relating to BellSouth's response to any such request.

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence.

REQUEST: Produce copies of interim or final decisions in arbitration proceedings under Section 252 of the Communications Act or in any other proceeding under the Communications Act that address the issue of whether BellSouth should or should not provide EEL to requesting carriers.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, BellSouth identifies the following Tennessee dockets as being responsive to this request.

TRA Docket No.	Title
99-00430	DeltaCom Arbitration
99-00377	ICG Arbitration
98-00123	NextLink Arbitration

REQUEST: Produce copies of all interconnection agreements between BellSouth and other telecommunications carriers (other than Intermedia) under Section 252 of the Communications Act, whether the interconnection agreement was reached through voluntary negotiations or compulsory arbitration.

RESPONSE: BellSouth objects to this request for production on the grounds that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. BellSouth further objects to this request for production on the grounds that to the extent it seeks the production of documents that are on file with the Tennessee Regulatory Authority, such documents are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objection, BellSouth provides hereto a list of applicable interconnection agreements that fit the criteria of this request. Upon request, these agreements can be made available for inspection at BellSouth Center, 675 W. Peachtree Street, Atlanta, Georgia 30375.

2nd Century Communications, Inc.
@Link Networks, Inc. (Dakota Services)
Access Integrated Networks, Inc.
ACI Corp.
Adelphia Business Solutions of Nashville, LP d/b/a Hyperion of TN
Advent Consulting and Technology, Inc.
Aeneas Communications
Al-Call, Inc.
ALEC, Inc.
All-Pro Communication, Inc.
Alliance Network, Inc.
American MetroComm Corporation (AMC)
American Phone Corporation
Areo Communications
AT&T Communications of the South Central States, Inc.
AVANA Communications Corporation
AXSYS, Inc.
BlueStar Networks, Inc.

RESPONSE: (continued)

Broadband Office Communications Inc.
BroadSpan Communications, Inc. d/b/a Primary Network Communications, Inc.
Brooks Fiber Communications of Tennessee, Inc.
Business Telecom, Inc.
Cardinal Communications of Tennessee, Inc.
Cbeyond Communications, LLC
Centennial Florida Switch Corporation
Chapel Services, Inc.
CKS, Inc.
Columbia Telecommunications, Inc.
Communication Services Integrated, Inc.
Community Telephone Corporation
COMPASS Telecommunications, Inc.
Computer Business Sciences, Inc.
Connect!
Convergence, Inc.
CPU Solutions Corp.
CRG International, Inc. d/b/a Network One
Daytona Telephone Company
Diamond Telephone Services, Inc.
DIECA Communications, Inc. d/b/a Covad Communications Company
Discount Communications
DMJ Communications, Inc.
DSLnet Communications LLC
DV2, Inc.
E-Z Access USA, Inc.
Eagle Communications, Inc.
Eastland of Orlando Telephone Corp. ("Eastland of Orlando")
Electric Power Board of Chattanooga
Empire Telecom Services, Inc.
Ernest Communications, Inc.
e.spire Communications, Inc.
Essex Communications, Inc. d/b/a eLEC Communications, Inc.
FairPoint Communications Solutions Corp. (formerly Fairpoint Communications)

RESPONSE: (continued)

Frontier Local Services, Inc.
Fuzion Wireless Communications, Inc.
Gietel, Inc.
Global Crossing Local Services, Inc. and Global Crossing Telemanagement, Inc.
Global Naps South, Inc.
Globe Telecommunications, inc.
GNet Telecom, Inc.
GulfPines Communications, LLC
Healthcare Liability Management Corporation d/b/a Fibre Channel Networks, Inc.
HTC Communications, Inc.
Hyperion Communications of Tennessee, L.P.
ICG Telecom Group, Inc.
iConnect Corp.
IDS Long Distance, Inc.
InterContinental Communications Group d/b/a Fusion Telecom
Intermedia Communications, Inc.
International Web Technologies, Inc.
IntraLEC, Inc.
ITC^DeltaCom, Inc.
JATO Communications Corporation
KMC Telecom, III, Inc.
Knology Holdings, Inc.
Light Networks, Inc.
LogicSouth, Inc.
Main Telecom, L.L.C.
MCImetro Access Transmission Services, Inc.
Mebtel Integrated Communications Solutions, LLC d/b/a Integrated Communications Solutions
MetroLink Internet Services of Port Saint Lucie, Inc.
Metromedia Fiber Network Services, Inc.
MGC Communications, Inc.
MicroSun Telecommunications, Inc.
Momentum Business Solutions, Inc.
Money To Go, Inc.

RESPONSE: (continued)

Mpower Communications Corporation, Inc.
MTS Communications (formerly Inter Mountain Cable, Inc. d/b/a Mikrotec)
MVX.Com Communications, Inc.
NA Communications, Inc.
NationNET Communications Corporation
Navigator Telecommunications, LLC
Net 2000 Communications
NET-tel Corporation
Network Access Solutions Corp.
Network Telephone Corp.
New Edge Networks, Inc.
NewSouth Communications, Corp.
NEXTLINK Tennessee, Inc.
North American Telecommunications, Corporation ("NATC")
Nustar Telephone Co.
01Communications, Inc.
Oltronics, Inc.
One Communications Systems, Inc.
One Point Communications, L.L.C.
OptiLink Communications, Inc.
Palm Beach Telephone Company
Pathnet, Inc.
Progressive Telecommunications
Purepacket Communications
Savannah CLEC Network, Inc. d/b/a Line Drive Communications of Savannah
SBC Telecom
Signature Communications, Inc.
Southeast Telephone, LTD
Southeastern Services, Inc.
Sprint Communications Company, L.P.
Talk.com Holding Corporation
Telepak Networks, Inc.
Telepak, Inc.
Teleport Communications Group, Inc.
TeleSys, Inc. d/b/a Access America Telephone Co.

RESPONSE: (continued)

Teligent, Inc.
The Basico Group, Inc.
The Other Phone Company, Inc. d/b/a AccessOne Communications, Inc.
TLX Communications, Inc. dba TelAmerica
Touchtone Communications, Inc.
TriComm, Inc.
Tristar Communications (Satcom Systems)
Trivergent fka State Communications
UNICOM Communications, LLC
USA Digital, Inc.
US LEC
US West !nterprise America, Inc. d/b/a !NTERPRISE AMERICA
Utiliticore Corporation
VBI 2000, L.L.C.
VirTel
Winstar Wireless
WorldAccess Communications Corporation

REQUEST: Produce all documents upon which BellSouth intends to rely or introduce into evidence at the hearing on this matter.

RESPONSE: Documents responsive to this request have been or will be provided with the testimony filed in this docket and documents provided in response thereto.

REQUEST: Identify any and all cost studies, evaluations, reports, analyses, proposals, recommendations, and similar documents prepared by BellSouth or on behalf of BellSouth concerning any issue raised by BellSouth in this proceeding.

RESPONSE BellSouth does not have any cost studies that meet this definition that are not already identified. See BellSouth's response to Intermedia's 1st Request for Production, Item No. 43.

REQUEST: Produce all documents that refer, reflect, or describe the network architecture used by BellSouth to deliver traffic to Internet Service Providers (ISPs).

RESPONSE: BellSouth objects to this request for production on the grounds that the information requested is vague, overly broad, unduly burdensome and oppressive and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objection, see documents attached to BellSouth's response to Intermedia's 1st Request for Production of Documents, Item No. 4.

REQUEST: Produce any and all cost studies prepared by or on behalf of BellSouth relating to Frame Relay.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of cost studies for BellSouth's retail services, the production of which is not relevant to the issues in this arbitration, nor is it reasonably calculated to lead to the discovery of admissible evidence.

REQUEST: Produce any and all cost studies supporting or referring or relating to BellSouth's recurring and nonrecurring charges for the unbundled network elements identified by the FCC in the *UNE Remand Order*.

RESPONSE: BellSouth filed UNE cost studies in TRA Docket Nos. 97-01262, 99-00430, and 99-00377. These studies are consistent with the FCC's UNE definitions prior to the UNE Remand Order.

BellSouth recently filed additional UNE cost studies in TRA Docket Nos. 97-01262 and 00-00544. These filings are consistent with the UNE Remand Order. BellSouth is preparing cost studies consistent with the UNE Remand Order that will be filed, with the approval of the Hearing Officer, in the TRA's pending generic cost docket. This comprehensive filing will include the cost elements identified in the UNE Remand Order.

These cost studies are considered proprietary and will be made available at BellSouth Headquarters, 675 West Peachtree Street, Atlanta, GA subject to the terms of the Protective Order entered in this proceeding. As an alternative, these studies are also available at the Tennessee Regulatory Authority.

REQUEST: Produce any and all cost studies supporting or referring or relating to BellSouth's recurring and nonrecurring charges for existing combinations of UNEs, including the EEL, and UNE-P, identified by the FCC in the *UNE Remand Order*.

RESPONSE: See BellSouth's cost study filed in Docket No. 97-01262 provided in Intermedia's 1st Request for Production, Item No. 43.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of access to packet switching capabilities on an unbundled basis.

RESPONSE: BellSouth objects to this request for production on the grounds that the information requested is unduly burdensome and oppressive and not reasonably calculated to lead to the discovery of admissible evidence.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of access to existing combinations of network elements, including the EEL.

RESPONSE: Responsive documents are attached.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 46

ATTACHMENT

ADDRESS and FACILITY INVENTORY GROUP

Unbundled Extended Loop

Description

The Unbundled Extended Loop (UEL) is an Unbundled Network Element (UNE) that consists of an unbundled DS1 loop and Unbundled Interoffice Transport (UIT) at the DS1 level. This product will not be channelized or multiplexed.

The loop is a dedicated digital transmission facility that extends from BST`s MDF to a customer's premises. The UIT is a dedicated facility that connects BST central offices together. When these two elements are combined by BellSouth, the circuit will provide a transmission path from the CLEC POP serving wire center (SWC) all the way to an end user`s premises at a DS1 level. The CLEC will not have to be collocated at the end user SWC in order to use this combo.

This product will be offered to the CLEC as a "switch as is" product that will convert an existing MEGALINK circuit into a UEL for billing purposes. These services will be offered as a result of a Regulatory ruling by the state PSC and is not a BST negotiated offering.

The UEL will allow the end user to send and receive traffic that utilizes DS1 technologies when it is connected to the proper packet/circuit switch within the CLEC`s network. This facility will include a Network Interface Device(NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire.

The UEL may only be used by the CLEC to provide local phone service to the end user.

Provisioning

BST will attempt to **reuse facilities from end users existing Megalink service . Current reuse procedures will apply.**

USOC`s at CKL 1

USEL (Basic Class Of Service)

CNC1X (DS1 Cross Connect- Virtual)

PE1P1 (DS1 Cross Connect Physical)

SOMAC (Required on every CKL1)

USOCs at CKL 2

USLXX (DS1 Loop)

1L5XX (Mileage)
U1TF1 (Interoffice Transport Fixed)

UEL Service Order Exhibits

EXHIBIT 1A
LCSC Service Order Exhibits
Physical Collocation / HC-- AMI - SF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
	$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials
LAT	438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO	(D Order Number of MegaLink)
SPO	****
ADSR	
FDT	900P

LIST SECTION

ACN	CLEC Name
ACA	1-1324 Veterans Pkwy (Address of ACTL)
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460,	Name of DSGCON on LSR,
	3535 Colonnade Pkwy, Rm. E3A	DSGCON Street Address, Room Number, City State
	Birmingham, AL 35243	and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON PON Number from LSR
IMAN UXXXX First Character is always U
XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 1A
LCSC Service Order Exhibits
Physical Collocation / HC-- AMI - SF
Non – Channelized

---S&E
IG1 CLS ##.HCFU.123456.XX
/NC HC--/PIU 0/PLU 100
/CKR ABCD1234/SSP
I1 **USLEL** **(NEW BCS – UNBUNDLED UEL, DS1)**
SUB 1-NPA NXX **(LSO of BST SWC)**
IG2 CKL 1-POP ADDR, CITY
STATE/LSO NPA NXX
/TAR ###,###/NCI 04QB9.11
/ZNEA//ACTL #
/CFA #### T1TIE 1 CLECOLOCLLI **(TIME SLOT ALWAYS = 1)**
COCLLIXX/ZHNC
I1 **PE1P1** **(DS1 PHYSICAL COLLOCATION)**
I1 **PE1PG** **(DS1 POT BAY)**
I1 UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
SUB 2-NPA NXX **(LSO of End User)**
IG2 CKL 2-ENDUSER ADDR, CITY, STATE
/LSO NPA NXX/TAR ###,###
/NCI 04DU9.BN/SN ENDUSER NAME
/LCON NAME, TEL NUMBER/LOC FLR
I1 **USLXX/RUF CLS XX.XXXXXX.XX..SB** **(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**

I# **1L5XX** **(INTEROFFICE MILEAGE PER MILE)**
I1 **U1TF1** **(INTEROFFICE TRANSPORT FIXED)**
I1 UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
I1 **CCOEF**

I1	SOMAC	(SERVICE ORDER CHARGE)
I1	SOMAN/NRA NEG	

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 1B
LCSC Service Order Exhibits
Virtual Collocation / HC-- AMI - SF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials	
	$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX XXX = Three Character ACNA of CLEC	
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460,	Name of DSGCON on LSR,
	3535 Colonnade Pkwy, Rm E3A	DSGCON Street Address, Room Number, City State
	Birmingham, AL 35243	and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

after SOER Edit has bben fixed.)

---RMKS

UEL Service Order Exhibits

EXHIBIT 2A
LCSC Service Order Exhibits
Physical Collocation / HCD- AMI - ESF
Non – Channelized

IDENT SECTION

ZRTI $,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials
LAT 438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO (D Order Number of MegaLink)
SPO ****
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LIST SECTION

ACN CLEC Name
ACA 1-1324 Veterans Pkwy (Address of ACTL)
ACTL 1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON PON Number from LSR
IMAN UXXXX First Character is always U
XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 2A
LCSC Service Order Exhibits
Physical Collocation / HCD- AMI - ESF
Non – Channelized

---S&E
IG1 CLS ##.HCFU.123456.XX
/NC HC--/PIU 0/PLU 100
/CKR ABCD1234/SSP
I1 **USLEL** **(NEW BCS – UNBUNDLED UEL, DS1)**
SUB 1-NPA NXX **(LSO of BST SWC)**
IG2 CKL 1-POP ADDR, CITY
STATE/LSO NPA NXX
/TAR ###,###/NCI 04QB9.11
/ZNEA//ACTL #
/CFA #### T1TIE **1** CLECOLOCLLI **(TIME SLOT ALWAYS = 1)**
COCLLIXX/ZHNC
I1 **PE1P1** **(DS1 PHYSICAL COLLOCATION)**
I1 **PE1PG** **(DS1 POT BAY)**
I1 UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
SUB 2-NPA NXX **(LSO of End User)**
IG2 CKL 2-ENDUSER ADDR, CITY, STATE
/LSO NPA NXX/TAR ###,###
/NCI 04DU9.1KN/SN ENDUSER NAME
/LCON NAME, TEL NUMBER/LOC FLR
I1 **USLXX/RUF CLS XX.XXXXXX.XX..SB** **(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**

I# **1L5XX** **(INTEROFFICE MILEAGE PER MILE)**
I1 **U1TF1** **(INTEROFFICE TRANSPORT FIXED)**
I1 UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
I1 **CCOEF**

I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	**SOMAN/NRA NEG**	

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 2B
LCSC Service Order Exhibits
Virtual Collocation / HCD- AMI - ESF
Non – Channelized

IDENT SECTION

ZRTI $,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials
LAT 438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO (D Order Number of MegaLink)
SPO ****
ADSR
FDT 900P

LIST SECTION

ACN CLEC Name
ACA 1-1324 Veterans Pkwy (Address of ACTL)
ACTL 1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON PON Number from LSR
IMAN UXXXX First Character is always U
XXXX = AECN

UEL Service Order Exhibits

EXHIBIT 1
VIRTUAL COLLOCATION ACCESS UEL
NON-CHANNELIZED DS1
CONVERSION SERVICE ORDER EXAMPLE

This is not a complete Service Order Exhibit:

CRO MEGALINK ORDER NUMBER
RRSO MEGALINK ORDER NUMBER

---S&E
IG1 CLS ##.HCFU.123456.XX
/NC HC++/PIU 0/PLU 100
/CKR ABCD1234/SSP
I1 USLEL (NEW BCS – UNBUNDLED UEL, DS1)
SUB 1-NPA NXX
IG2 CKL 1-POP ADDR, CITY
STATE/LSO NPA NXX
/TAR ###,###/NCI 04QB9.11
/ZNEA/ACTL #
/CFA #### T1TIE 1 CLECOLOCLLI **(TIME SLOT ALWAYS = 1)**
COCLLIXX/ZHNC
I1 CNC1X (COLLOCATION DS1 CROSS-CONNECT)
I1 UNECN/ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
SUB 2-NPA NXX
IG2 CKL 2-ENDUSER ADDR, CITY, STATE
/LSO NPA NXX/TAR ###,###
/NCI 04DS9.++/SN ENDUSER NAME
/LCON NAME, TEL NUM/LOC FLR
/RUF XXX XXX-XXX (MEGALINK BAN)
I1 DND (Do Not Dispatch)
I1 USLXX (DS1 LOOP)
I# 1L5XX (INTEROFFICE MILEAGE PER MILE)
I1 U1TF1 (INTEROFFICE TRANSPORT FIXED)
I1 UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR,
IMPCON NAME ON LSR
If this information is not provided on the LSR, then use:
INITATOR'S TELEPHONE NUMBER ON LSR,
INITATOR'S NAME ON LSR
I1 SOMAC (SERVICE ORDER CHARGE)

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 2
PHYSICAL COLLOCATION ACCESS UEL
NON-CHANNELIZED DS1
CONVERSION SERVICE ORDER EXAMPLE

CRO	D1234567	(MEGALINK BAN)
RRSO	D1234567	(MEGALINK BAN)

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HC++/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE **1** CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**PE1P1**	**(DS1 PHYSICAL COLLOCATION)**
I1	**PE1PG**	**(DS1 POT BAY)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DS9.++/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR /RUF XXX XXX-XXX	(MEGALINK BAN)
I1	**DND**	**(Do Not Dispatch)**
I1	**USLXX**	**(DS1 LOOP)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 3
MEGALINK
CRIS SERVICE ORDER EXAMPLE

RRSO	C1234567	(BOCABS ORDER NUMBER)
CRO	C1234567	(BOCABS ORDER NUMBER)

---LIST
OLN
OLA
OSA
OLOC
OSIC
OYPH

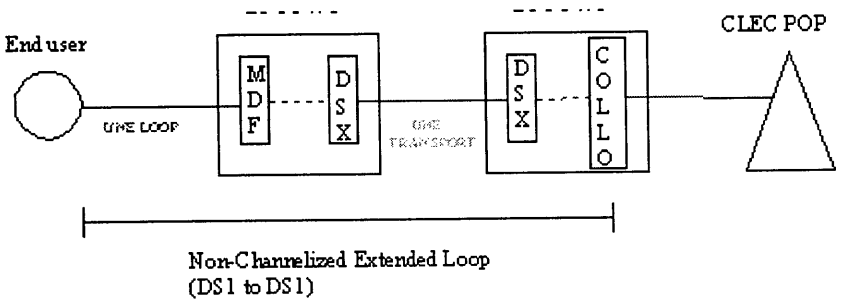
---BILL
IBNI
IBN2
IBA3
IPO
ICI
ORESH
TAR
BTN
IDCR
ISS
OBIR CKL
MAN
ICIV

---S&E

01	CCOSF/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/SED XX-XX-XX /ZSER	**(MEGALING CKT ID)**
0G1	CKL 1- CLEC ADDRESS, CITY, ST /LOC/SN	
0#	1LDPA/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /SED XX-XX-XX/ZSER A1234 /RMKR (A) MILEAGE	
O1	RESCN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /ZRCI	
OG1	CKL 2-POP ADDRESS, CITY, ST /SN XXXXXX/RMKR (A) CFA T1TIE 81082 CLMBGAMT CLMGBGAMTWD1	
0#	1LNOA/CLS XX.XXXX.XXXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /XPOI CLMBGAMTWD1/ZNEA/ZSER A1234	
I1	SOMAN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX	

Glossary of Terms

USLEL	**Basic Class of Service for Unbundled Extended Loop (UEL)**
CNC1X	**DS1 Collocation Cross Connect USOC**
USLXX	**DS1 Loop**
U1TF1	**Interoffice Transport Fixed**
1L5XX	**Interoffice Mileage**
SOMAC	**Service Order Manual Charge per Circuit Id Number**
SOMXC	**Service Order Mechanized Charge per Circuit Id Number**
PE1PG	**DS1 Pot Bay**
PE1P1	**DS1 Physicial Collocation**



Non-Channelized Extended Loop
(DS1 to DS1)

Outside Plant Engineering Methods and Procedures For Provisioning Unbundled Network Elements

Outside Plant Engineering Support Staff
Linda M. Kinsey, Director -- Outside Plant Engineering Support

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1. General

1.1 The purpose of this document is to provide BellSouth methods and procedures to the Outside Plant Engineering group for the provisioning of Unbundled Network Elements (UNEs).

1.2 Changes made in Issue G:

1. Updated SME list to include SSI&M/I&M.
2. Updated documentation list to include SSI&M/I&M.
3. Updated USOC Matrix (Table 6) to include extended range plug statuses for POTS unbundled loops, changed service type of USL and UNTW to TX.
4. Added Unbundled Sub-Loop Riser USOCS to Table 6 -- List of USOCS and PLUG Types for Unbundled Loops
5. Changed references from Account Team to Account Team/CRSG for SI flows.
6. Added 10-day interval for cost estimates for special construction in section 5.7.
7. Modified SI process for UCL to include out of range loops in Section 9.
8. Modified USL process and SI forms.
9. Modified collocation tie cable inventory form.
10. Added detailed SI procedures for ADSL/HDSL in Section 8.
11. Revised SI for ADSL, HDSL and UCL.
12. Added Service Type column to Table 6.
13. Updated section 5.7 Special Construction Process with added detail.
14. Revised UDL-2W/EE and UDL-4W/EE terminology in section 8 and on the SI.
15. Changed document format to "Living Document" format.
16. Added new section 18 for Unbundled Extended Loops and renumbered remaining sections.
17. Add a requirement to provide a reason on the SI when a loop does not qualify for UDL/2W/EE, UDL-4W/EE or UCL.

1.3 Please contact Michael K. Zitzmann, OSPE Support, at 504-624-9241 or send EMAIL (Intranet - Michael K. Zitzmann/m7,mail7a or Internet address Michael.Zitzmann@bridge.bellsouth.com) with any comments or suggestions to improve this document. Note: Because of constant changes in CLEC methodology, this document is constantly evolving. Answers for all possible scenarios have not been developed. Certain sections do not have complete information. As additional information is obtained, this document will be revised.

1.4 The passage of the Telecommunications Act of 1996 and Public Service Commission rulings have mandated that the incumbent Local Exchange Carriers (LEC) unbundle the local loop, i.e., break it up into facility sections. The local loop contains two major components, the port on the switch and the loop facilities from the central office to the customer Network Interface (NI). Unbundled Local Loop is BST's name for providing the local loop for a Competitive Local Exchange Carrier (CLEC).

The unbundled loop can be further broken down to sub-loop elements. Three sub-loop elements are discussed in this document, Unbundled Sub-Loop Concentration (USLC), Unbundled Sub-Loop Feeder (USLF) and Unbundled Sub-Loop (USL).

1.5 BellSouth will provide an Unbundled Local Loop from an end user customer's premise to a CLEC Point of Interface in the BellSouth Central Office serving the customer's location. BST will not combine unbundled elements for a CLEC except for the combination of UVLs/UDLs onto an Unbundled Loop Concentration System or in rare instances where the CLEC's contract allows combinations.

The unbundled loop facility is being filed in the BellSouth Intrastate Access tariff in all states as required. For the purposes of this document the Unbundled Local Loop is defined as: "The transmission facility between the distribution frame and the customer's network interface device." We will provide the entire loop from the customer premise to the BellSouth MDF or DSX, including the Network Interface (NI).

Unbundled Sub-Loop Concentration consists of a carrier system, located at a Remote Terminal, that is dedicated to a CLEC with the T1 transport brought back to our wire center. These T1 transport facilities can then be connected to a CLEC's collocation equipment.

Unbundled Sub-Loop consists of what we normally consider the F2 facility. It begins at a BST cross connect facility and terminates at the customer premises and includes the NI.

1.6 Unbundling the local loop will allow customers a choice of local service providers. CLECs will be able to lease portions of the LEC's facilities to provide their service as an alternative to the LEC for local service.

Unbundled Loops will be handed off to the CLEC in one of two ways.

(a) DS0 LEVEL - If the CLEC has established a collocation space in the serving LEC central office, the loops can be handed off to the CLEC at the DS0 level. The facilities from the collocation space to the BST frame will be inventoried in LFACS

(b) Concentrated Transport - This is a transport offering, which will consist of a SLC RT in our central office with DS1 transport to the CLEC collocation space. The DS0 level unbundled loops will be cross connected to the SLC RT system at our central office frame.

1.7 An Unbundled Local Loop can consist of many different types of facilities, including:

(a) Physical copper pairs from the central office to the NI

(b) Universal Digital Loop Electronics (DLE) from the Central Office Terminal (COT) to a Remote Terminal (RT) then copper facilities from the RT to the NI

(c) Integrated DLE from the central office to a RT, then copper facilities from the RT to the NI

(d) Fiber In The Loop DLE systems that use fiber as the main transport from the central office to an Optical Network Unit (ONU) located close to the customer premises, then copper from the ONU to the NI.

1.8 BellSouth will offer the following unbundled elements:

1. ***Unbundled Voice Loop (UVL)*** -- The voice grade UVL is a dedicated analog transmission facility from BST's main distribution frame (MDF) to a customer's premises.

2. ***Unbundled Digital Loop (UDL)*** -- The UDL will be a dedicated digital transmission facility from BST's MDF to a customer's premises.

3. ***Unbundled Copper Loop (UCL)*** -- Unbundled Copper Loop (UCL) is a dedicated non-loaded metallic transmission facility from BST's MDF to a customer's premises.

4. ***Unbundled Sub-Loop Concentration (USLC)*** -- USLC will allow a CLEC to concentrate up to 96 sub-loops (loop distribution elements provided by BST or the CLEC) onto 2, 3 or 4 DS1s to connect the CLEC's sub-loops (at a concentrated level) to BST's feeder system.

5. ***Unbundled Sub-Loop Feeder (USLF)*** -- USLF is a dedicated transmission facility that BST provides from a BST Central Office to a BST cross-connect facility. USLF can only be connected to a CLEC provided distribution facility.

6. ***Unbundled Sub-Loop (USL)*** -- USL will consist of a BST distribution pair from a BST cross connect point to a customer's premises. It will allow a CLEC to provide their feeder facilities to connect to the USL.

7. ***Unbundled Loop Concentration (ULC)*** -- ULC will allow a CLEC to concentrate up to 96 loops (UVL/UDL) onto 2, 3 or 4 DS1s to transport unbundled loops from a BST central office back to the CLEC collocation space.

8. ***Unbundled Dark Fiber (UDF)*** -- UDF is offered as a point-to-point arrangement between a customer designated premises and a BellSouth Wire Center or between BellSouth Wire Centers.

9. ***Unbundled Network Terminating Wire*** -- UNTW is offered as a dedicated transmission facility from the Wiring Closet/Garden Terminal (or other type of cross-connect point) at the end of BST's loop distribution facilities, to the end users premises

1.9 A Service Inquiry (SI) will be issued for UDL-2W/EE, UDL-4W/EE, UCL, USL, ULC, USLC, UNTW and UDF.

The following SIs are firm order service inquires and they require facility reservations when facilities are available: UDL-2W/EE & UDL-4W/EE, UCL, and UDF. **To maintain parity, loop facilities must be offered on a 'first come, first serve basis.'** A firm order service inquiry is considered a firm request from the CLEC. This means we must make reasonable efforts to assure that any loop facilities screened via a SI are not used by other service requests. We will use the FRN process to meet this objective. See section 8.5 Step by Step SI procedure for UDL-2W/EE & UDL-4W/EE (ADSL/HDSL) Loops for details on the FRN process.

1.10 A specialized group has taken over the function of handling most of the SI's for unbundled loops. This group is the Complex Resale Support Group (CRSG). (Some CLECs have dedicated Account Teams who perform this function in lieu of the CRSG.) The CRSG will act as the originator of most UNE SI's and will ensure that the SI's are completed properly by all parties. After completion of the SI the CRSG will forward the SI to the Local Carrier Service Center (LCSC) for order processing.

1.11 The Local Carrier Service Center (LCSC) serves as BellSouth's point of contact for processing local service requests from CLECs. Once the up front negotiation process and the network activities are completed, the CLEC may begin to submit valid service requests to the LCSC. The LCSC has to locations and contact numbers as shown below:

Atlanta LCSC	Birmingham LCSC
Room D20	14th Floor
5147 Peachtree Industrial Blvd.	600 North 19th Street
Chamblee, GA 30346	Birmingham, AL 35203
Phone #: 800-872-3116	Phone #: 800-773-4967

1.12 BellSouth will offer both unbundled ports and unbundled loops. These unbundled ports and loops can be provided to a CLEC collocation space in the serving Central Office and the CLEC may connect them.

1.13 BellSouth will offer the following unbundled ports: 2 wire analog line, 2 wire analog trunk, 2 wire digital line - ISDN, 4 wire digital trunk - (trunk), and 4 wire digital trunk - ISDN.

1.14 Most unbundled loops will carry an LY service code (designed circuits) as part of the circuit number; e.g., 10.LYXX.12345. All unbundled loops will be provisioned as a designed service with the ADSR FID except for the UVL-2W SL1 loop start POTS equivalent, which will be non-design (TY service code, e.g. 10.TYXX.12345). UVL-2W SL2 loop start will be a designed service. Unbundled Network Terminating Wire and Unbundled Sub-Loops are non-design and carry the TX service code. See Appendix B for a list of all USOCS and NC/NCI codes and Table 6 -- List of USOCS and PLUG Types for Unbundled Loops.

1.15 The UDL-2W/EE, UDL-4W/EE and UDF will have a service code of LX.

1.16 CLEC Complaint Documentation Procedure

CLEC complaints are very important to BST. In order to respond to CLEC complaints, the Real Time Resolution Group (RTRG) has developed a procedure for all employees to follow if they have direct CLEC contacts. This may not occur often for OSPE. However, if OSPE receives a complaint directly from a CLEC they must follow the procedures detailed in Appendix J.

2. Unbundled LOOP requests -- Existing Service Being Switched to CLEC

2.1 The CLEC will be requesting that an existing customer be transferred from BellSouth to the CLEC.

2.2 *Existing Loops on Copper Facilities* - There will be no OPSE involvement; the existing loop will be reused.

2.3 *Existing Loops Are On Universal Digital Loop Carrier Facilities (DLC)* -- The loop is currently working on DLC and the existing loop will be reused. There is no OSPE involvement.

2.4 *Existing Loops on Integrated DLC* - Since the derived facility does not make an appearance in the Central Office for Integrated systems, we cannot easily hand-off a loop to an CLEC if it is served via Integrated Carrier. If no suitable alternate facilities are shown in FACS, the SO will be PF'ed and will need to be answered by OSPE. OSPE will investigate to see if the customer can be served via alternate facilities. If alternate facilities exist OSPE will determine if they can be used. If facilities are available the OSPE will answer the SO to the alternate facilities. If no alternate facilities are available OSPE will determine the best method of providing the faciiities needed.

The unbundled loop can be provisioned through any of the currently approved methods including side-door port or Digital Cross-connect Systems (DCS). Large-scale use of side-door port or DCS will tie up expensive provisioning equipment that was not designed to handle the Unbundled Loop traffic. Some thought should be given to providing universal systems or physical pairs at carrier sites to provide unbundled loop access when the demand warrants the placement. See Appendix H for an outline procedure on provisioning loops through side-door, hairpin or DCS.

2.5 Special construction may apply in certain situations when provisioning unbundled loops. See Section 5 to determine if special construction applies when facilities are not available.

3. New Service Request

3.1 *Copper Loops* -- There is no OPSE involvement if facilities exist. If facilities do not exist the SO will be PF'ed to OSPE. They will need to see if alternate facilities are available. If they are available the OSPE will answer the SO to the alternate facilities. If no alternate facilities are

available OSPE will determine the best method of providing the facilities needed. See Section 5 to determine if special construction will apply.

3.2 *Loops on Universal Digital Loop Carrier Facilities (DLC)* -- OSPE is not involved if facilities are available. If facilities are not available the OSPE should see if alternate facilities are available. If they are available the OSPE will answer the SO to the alternate facilities. If no alternate facilities are available OSPE will determine the best method of providing the facilities needed. See Section 5 to determine if special construction will apply.

3.3 *Loops on Integrated DLC* -- We cannot easily hand-off a loop to a CLEC if it is served via Integrated Carrier. The OSPE will need to investigate to see if the customer can be served via alternate facilities. If alternate facilities exist, OSPE will determine if they can be used to provide facilities. If facilities are available the OSPE will answer the SO to the alternate facilities. If no alternate facilities are available OSPE will determine the best method of providing the facilities needed. See Section 4 for provisioning alternatives for integrated carrier. See Section 5 to determine if special construction will apply.

4. Providing Alternate Facilities for Integrated Loops

4.1 Several of the above scenarios end with OSPE looking for alternate facilities to provision the service. For copper based facilities and Universal Carrier based facilities OSPE will provision unbundled loops using existing design criteria. Integrated carrier poses some different possibilities in provisioning Unbundled Loops.

4.2 OSPE will determine the best facility to provide the unbundled loop facilities where loops are currently served via integrated carrier systems. Several choices are available.

a) Use existing universal carrier systems or existing physical pairs. -- Move the existing circuit from the integrated facilities to alternate universal carrier or physical facilities.

b) Use side door port or hairpin to groom the loop out of the switch. -- If the switch supports side door port or hair pin technology, the integrated DS0 can be pulled out of the switch and handed off to the CLEC at the DS0 level. ***We will as part of this alternative, use existing switch capacity to its maximum planned extent. This includes moving an IDLC from a switch peripheral that does not have side door capability to one that does have side door capability. If vacant ports are available in the switch peripheral and are planned for side-door use, add new side-door T1s to existing side door arrangements.[1] We are obligated to use existing capacity. Once existing capacity is exhausted it is preferable to add a new universal system or un-integrate an existing system to provide additional unbundled loop capacity. Special construction charges may apply as determined from Section 5 of this practice.***

[1] Do not exceed the number of switch ports planned for side door arrangements when using side door ports. We define the planned side-door port capacity as that number of DS1 ports reserved by the SCM and the LCM for side door use when the switch peripheral was set up. Line and Numbers keeps track of this number.

c) Use existing DCS to pull loop out of switch. If the integrated carrier system passes through a Digital Cross Connect System (DCS), the DS0 can be pulled out of the integrated carrier system before it enters the switch and handed off to the CLEC.

d) Establish a new universal DLC system. Use this option when the exhaust of existing facilities will occur within two years and a, b, c or e options are not available. Special construction charges may apply when using this option (See Section 5).

e) Provide copper facilities to meet the demand for unbundled loops. Use this option when physical pairs are available in close proximity to the serving cross-box and will not require major expenditures to make them available for use. ***Cross-boxes that have zero spares will not normally be subject to special construction charges (SC). The general rule is that if BST would need to provide relief for its own use, then SC will not apply. If the relief is solely for the CLEC (BST would not need the new facilities for its own use) then special construction will apply.***

f) Un-integrate an existing carrier system (convert to universal). Use this option when the exhaust of existing facilities will occur beyond two years and the "a", "b", "c" or "e" options are not available. Special construction charges may apply when using this option (See Section 5).

OSPE should examine the most economical way to provide the loop facilities. First choice is to utilize existing alternate facilities, Option "a". Small requests for UNEs can be economically provisioned using Options "b" and "c" above. Larger quantities may require building a new universal system. The Network Infrastructure Planning group is studying this issue and when guidelines are developed they will be incorporated into this document.

4.3 Use of options "b" or "c" above requires CPG support and TIRKS assignment of equipment. Because of this CPG/TIRKS involvement a SL1 unbundled loop cannot be provisioned using options "b" or "c". See Appendix H for an outline procedure on provisioning loops through side-door, hairpin or DCS.

4.4 ***SAC NOTE: When a CLEC orders a SL1 loop and the only means of providing that service is to use Options "b" or "c", then the SAC will inform the LCSC that the CLEC cannot get a SL1 loop and they must order a SL2 loop. The SAC will respond via RELOG with the quick release answer of "SOC" (Service Order Correction) and will place sufficient notes in remarks to indicate that this order needs to be canceled and issued as SL2.***

The LCSC must inform the CLEC that the SL1 service order will be canceled and a new order must be issued as a SL2 loop.

4.5 OSPE will determine when facilities are not available and then will inform the Local Carrier Service Center (LCSC) that facilities are not available. RELOG will be used to transmit the response to the LCSC. If a job is required the service order should be answered to the job and an estimated service date should be supplied.

4.6 Sometimes loops cannot be provisioned due to defective pairs or the need to do line and station transfers. The LAC should explore the possibility of CDP and LST to make a pair available to assign the unbundled loop. Should the attempts to CDP or LST fail, then the order is PF'ed to OSPE and at that point OSPE should consider the options detailed above.

4.7 Should OSPE propose rearrangements on facilities containing unbundled loops, the unbundled loops will be considered special services and should be listed on the special services cutover list. Plugs required for cutover to DLC systems will be provided by the CPC.

5 Special Construction

5.1 Follow the following guidelines to determine if special construction applies to provisioning of UNEs.

5.2 *Physical Pairs and Universal Carrier Systems*

No special construction is applicable to transfer an existing customer to existing alternate facilities, such as transferring a customer from existing integrated facilities to existing universal facilities.

Special construction applies if it necessary to build new facilities to meet CLEC demand and BST has no other requirement for the facilities.

5.3 *Integrated Carrier Systems NOT Routed Through A DCS Or Integrated Facilities Terminated On A Switch That Does Not Have Side Door Port/Hair Pin Technology*

Provisioning UNEs to a CLEC for loops served on integrated systems that do not route through a DCS or have side door port capabilities may require special construction charges. Special construction applies if it necessary to build new facilities to meet CLEC demand and BST has no other requirement for the facilities.

If physical pairs can be made available with minimal expenditure, BST will make these physical pairs available in the cross-box where the CLEC requires unbundled loops and special construction charges will NOT apply.

If physical pairs cannot be made available without major expenditures, then:

- Place a new Universal DLC system if the site will exhaust within two years.
- Un-Integrate an existing Integrated DLC system if the site will exhaust beyond two years.

Both of these situations will require special construction charges if the CLEC contract does not forbid charging special construction for handing off integrated loops (See Section 5.5).

5.4 *Integrated Carrier Systems Routed Through A DCS or Integrated Facilities Terminated On A Switch That Does Have Side Door Port/Hair Pin Technology.*

BST will use the ***existing*** side door port or DCS capability or will build alternate facilities to provide UNEs to the CLEC. No special construction charges are applicable in either case. ***We will as part of this alternative, use existing switch capacity to its maximum planned extent. This includes moving an IDLC from a switch peripheral that does not have side door capability to one that does have side door capability. If vacant ports are available in the switch peripheral and are planned for side-door use, add new side-door T1s to existing side door arrangements.[2] When Side door/hairpin capacity exhausts, provide capacity through a new universal system or un-integrate an existing system and charge special construction as outlined in Section 5.3.***

5.5 The CLEC contract needs to be consulted to see if special construction can be charged for handing off integrated loops. Some CLEC contracts may forbid these special construction charges. In order to find out what the contracts allow, contact the Interconnection organization at 404-927-7519. This group handles the contract negotiations with CLECs. They can tell you if the contract forbids special construction for integrated carrier unbundled loops.

If the CLEC contract forbids special construction, OSPE will provide the unbundled loop to the CLEC without charging special construction costs. OSPE will use the best alternative in order to meet the CLEC's due date. This includes all the alternatives discussed in Section 4.2. BellSouth Telecommunications (BST) will utilize any technically feasible method for provisioning service to CLEC customers to meet contractual obligations to those customers.

5.6 *USLC, USL and USLF*

Special construction will always apply when a new cross-box or a new DLC cabinet is required to provision the USLC, USL or USLF offerings. Special construction does not apply to the costs to set up existing plant.

5.7 Special Construction Process

When special construction is applicable according to the rules above and the CLEC contract does not forbid special construction, OSPE will notify the originator[3] that special construction will apply and the originator will ask the CLEC if they wish to proceed with a cost estimate. When

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[2] Do not exceed the number of switch ports planned for side door arrangements when using side door ports. We define the planned side-door port capacity as that number of DS1 ports reserved by the SCM and the LCM for side door use when the switch peripheral was set up. Line and Numbers keeps track of this number.

[3] The originator will be the Account Team or CRSG for those UNEs that have a SI. For UNEs without a SI the originator is the LCSC.

the CLEC does agree to pay special construction charges, the OSPE should examine the most economical way to provide the loop facilities.

Whichever alternative proves to be the best, the CLEC is responsible for compensating BellSouth for all costs associated with the conditioning of the unbundled loops and the provisioning costs associated with providing unbundled loops where BellSouth would not normally need the facilities.

OSPE will determine when facilities are not available and then will inform the originator that facilities are not available. There are two different ways that SC can be triggered.

1. If the document triggering the SC quote is a SI, the SI will be the document passed back to the originator (in this case the Account team/CRSG) to indicate that special construction will be applicable[4].

2. If the SC quote was triggered by a service order then RELOG will be used to transmit the response to the LCSC. RELOG allows eight lines of 29-character input from OSPE. The first line is reserved for the engineer's initials and contact number; the remaining lines can be used to tell the LCSC what to tell the CLEC. The term "NO FACILITIES AVAILABLE SPECIAL CONSTRUCTION CHARGES APPLICABLE" should be included along with a brief description of what needs to be done; i.e., "NEW UNIVERSAL CARRIER SYSTEM REQUIRED." The LCSC will notify the CLEC and determine if they wish to pursue the special construction option and notify the CLEC that an estimate preparation charge will be applicable. The LCSC will inform OSPE when a special construction estimate needs to be prepared. OSPE will prepare the estimate and forward it to the LCSC.

In either case, we will use our existing procedures for special construction billing to notify the CLEC of the charges. See RL: 97-08-016BT for Billing Methods and Procedures. The interval for returning a cost estimate to the originator should be no less than 10 days. OSPE should try to meet the 10 day interval whenever possible. If this interval will be exceeded, OSPE should contact the originator and inform them of the delay and when to expect a response.

NOTE: In order to get a special construction quote the CLEC agrees that should they (the CLEC) decline to go forward with the special construction process, they (the CLEC) will pay for the time it took to prepare the special construction quote. OSPE needs to keep track of the time it takes to prepares special construction quotes for CLECs and use this information to prepare a billing job to recover the costs associated with the SC quote if the CLEC declines to have the work done. It is the responsibility of the originator to notify OSPE when the CLEC declines a SC quote.

6 Loop Make-Ups

[4] See section 8.5 Step by Step SI procedure for UDL-2W/EE & UDL-4W/EE (ADSL/HDSL) Loops or section 9.8 Step by Step SI Procedure for UCL for details on how a typical SI will be handled.

6.1 **All unbundled loops will require a valid loop make-up in FACS except the 2W UVL with loop start Service Level 1.** See Section 7 for a detailed description of UVL loops. The 2W UVL, loop start will not normally require a loop make-up. There is an option to supply a loop make-up to the CLEC for the 2W UVL loop start. This will be indicated on the service order by the special USOC, "UEANM." If this USOC is present then OSPE will need to insure that a valid make-up is present in LFAC for the 2W UVL loop start service. All other unbundled loops will be designed and will always require a valid loop make-up. The service order will be PF'ed if there is no valid make-up in place. OSPE will then need to input the make-up to release the order.

It is preferable that the loop make-ups already be in LFACS. If this is the case, most orders will flow through with no OSPE involvement. In order to prepare for unbundled loop service order flow, those Districts with CLEC presence should start immediately to input loop make-ups on all EWOs. The Districts with CLEC presence should also consider a proactive program to have loop make-ups input in those areas where the CLEC is offering service. This will minimize the amount of work needed for service order activity.

7 Unbundled Voice Loop (UVL)

7.1 Unbundled Voice Loops are voice grade analog facilities; they can be two wire or four wire, loop start or ground start. Most UVL offerings will reuse existing facilities. Special construction may apply in certain situations. Loops currently served on integrated carrier systems will have to be provisioned on alternate facilities if the integrated system does not terminate in a switch with side door port capabilities or go through a DCS. See Section 4 for provisioning alternatives for integrated carrier. See Section 5 on special construction applications.

7.2 UVL-2W/SL1 or SL2 and UVL-4W

The voice grade UVL is a dedicated analog transmission facility from BST's main distribution frame (MDF) to a customer's premises. This facility will allow an end user to send and receive normal voice telecommunications traffic when it is connected to a dial-tone-providing switch. This facility will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire. The UVLs can be configured as 2-wire (2W) or 4-wire (4W) facilities, loop start or ground start. These loops will be offered with two optional levels of service. Do not provision an UVL on a DAML (Digital Added Main Line). Existing operational systems will not support assignment of a DAML for UVL.

Service Level one (SL1) will be a non-designed circuit and can only be provided with loop-start signaling. Upon request from the CLEC, BST will provide an Engineering Information (EI) document. This document consists of the loop make-up. A SL1 circuit normally does not require a loop make-up in LFACS. However, if the CLEC has requested an EI, then a loop make-up must be present in LFACS. OSPE will input any loop make-ups required for SL1. The EI will be provided at an incremental charge. SL1 will not offer any Mechanized Loop Test (MLT) type testing, and we will not provide any test access points on SL1 service.

Service Level Two (SL2) will be a designed circuit and BST will provide a Design Layout Record (DLR). All SL2 circuits will require a loop make-up input into LFACS by OSPE. SL2 circuits will not have MLT type testing but will be equipped with test access points.

8 Unbundled Digital Loop (UDL)

8.1 Most UDL offerings will reuse existing facilities. Special construction may apply in certain situations. Loops currently served on integrated carrier systems will have to be provisioned on alternate facilities if the integrated system does not terminate in a switch with side door port capabilities or go through a DCS. See Section 4 for provisioning alternatives for integrated carrier. See Section 5 on special construction applications.

8.2 The UDL will be a dedicated digital transmission facility from BST's MDF to a customer's premises. This facility will allow the end user to send and receive traffic that utilizes technologies such ISDN; Enhanced Electronic (EE) capabilities such as HDSL/ADSL; and high capacity services such as DS-1 when the loop is connected to the proper packet/circuit switch. This facility will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire. The UDLs can be configured as 2-wire ISDN (2W/I); 2-wire Enhanced Electronics (2W/EE); 4-wire DS1 & ISDN (4W/DI) or 4-wire Enhanced Electronics (4W/EE) facilities. It should be noted that on the 2W/EE and 4W/EE that BST does not provide the Enhanced Electronics. These are designed facilities.

In addition to the 4W/DI mentioned above, BST offers two other loops that would be used to provide packet switching services such as Frame Relay, etc. These loops are provisioned as a 4-wire DS0 level loop (4W/D0) and as a Fiber Optic DS3 level loop (FO/D3).

This service offering includes 56/64 kbs (and sub-rates) DDS, ISDN BRI, DS1, ISDN PRI; and two new facilities designated as 2-wire or 4-wire HDSL compatible and 2-wire ADSL compatible (UDL-2W/EE and UDL-4W/EE). The HDSL and ADSL loops will conform to CSA design parameters (See Appendix A) and can only be served using copper pairs. The ADSL/HDSL offerings can only be handed off to the CLEC through DS0 collocation tie cables to the collocation space in the serving central office.

8.3 UDL-2W/I (Basic Rate ISDN)

Unbundled Basic Rate ISDN lines will be provided. Basic rate ISDN consists of a facility capable of providing 2B+D service. Use the existing ISDN M&Ps to determine how to provide this service. The existing M&P for Single Line Basic Rate ISDN is RL: 93-12-010BT. RL: 97-08-024BT covers provisioning of ISDN using the Adtran Total reach system. The Conklin BRITEmux is covered in 99-07-014BT and RL 97-03-017BT. The FITEL PMX8Umux is covered in RL: 97-03-015BT. Provisioning of unbundled loops for ISDN follow the same provisioning guidelines used for provisioning s BST's ISDN customers.

We will provide an unbundled Basic Rate ISDN line using the following design criteria;

COPPER LOOPS – Standard ISDN Provisioning
Total Loop + Bridged Tap = 18.0 kft
Maximum Bridged Tap = 6.0 kft*
Maximum resistance = 1300 ohms
Maximum Loss = 42dB at 40 kHz

* On a going forward basis, with all new construction and rearrangement activity, bridged tap should be limited to Carrier Serving Area (CSA) design criteria (2500 feet total bridged tap, 2000 feet for any single BT) to improve the digital transmission capability of the local loop.

COPPER LOOPS – Adtran Total Reach ISDN (eliminates need for mid-span repeaters)
Single Bridged Tap = 2.0 kft.
Total Bridged Tap = 6.0 kft
Maximum number of Bridged Taps = 3
Maximum resistance = 2000 ohms
Maximum Loss = 52dB at 20 kHz

Fitel and Conklin IDSN Muxes
DS1 fed mini-muxes that produce 8 IDSN lines.
See relevant M&Ps for provisioning.

DLC LOOPS
The following DLC systems support Basic Rate ISDN:
SLC96, SLC Series 5, D4, Fujitsu, Litespan 2000, DISC*S, SLC-2000 (Atlanta only), and PG-Flex

Please refer to RL: 93-12-010BT (SLC96, Fujitsu, SLC Series 5), 915-710-125BT (DISC*S), 915-730-112 (Litespan-2000), RL: 97-01-007BT (PG-Flex), and 915-730-113BT (SLC-2000) for compatibility details.

8.4 UDL-2W/EE & UDL-4W/EE (Unfettered Copper Loops)

UDL-2W/EE and UDL-4W/EE unbundled loops will require a Service Inquiry (SI) to determine if facilities are available. The UDL-2W/EE is offered to allow for enhanced services that require a CSA loop. Examples of the types of service suitable for the UDL-2W/EE are ADSL and HDSL service. The UDL-4W/EE is a four-wire version of the UDL-2W/EE. An example of a service suitable for the UDL-4W/EE is HDSL. These type loops can only be provisioned on a copper loop from the central office to the customer. These loops cannot be transported outside the originating wire center. A copy of the UDL-2W/EE, UDL-4W/EE, UCL Service Inquiry form is attached as Appendix C. The SI will originate from the Account Team/CRSG and be forwarded to OSPE. OSPE will determine if compatible facilities exist, reserve the facilities and return the

completed SI to the Account team within **48 hours**. The Account Team/CRSG will forward the completed SI to the LCSC. If facilities exist, the LCSC will issue the service order and the facilities reserved by OSPE will be assigned by LFACS. OSPE will need to reserve the facilities using facility reservation numbers and ensure that a valid loop make-up exists in LFACS.[5]

UDL-2W/EE loops will consist of one copper pair originating at the BST MDF and terminating at a customer NI. The loops will meet CSA design criteria and are not equipped with BST electronics. The DC resistance of a single wire pair should not exceed 850 ohms and the insertion loss of a pair at 196 kHz, measured between 135-ohm terminations, shall not exceed 35 dB. The only testing performed on these loops will be continuity and resistance checks. This type of loop cannot be provisioned through DLC. OSPE will receive an inquiry to qualify the loop. OSPE will issue a job to condition the loop if needed, e.g., cutting off bridged tap. Special construction charges apply for any conditioning of the loop.

UDL-4W/EE capable loops will consist of two copper pairs originating at the BST MDF and terminating at a customer NI. The loops will meet CSA design criteria and are not equipped with BST electronics. The DC resistance of a single wire pair should not exceed 850 ohms and the insertion loss of a pair at 196 kHz, measured between 135-ohm terminations, shall not exceed 35 dB. The only testing performed on these loops will be continuity and resistance checks. This type of loop cannot be provisioned through DLC. OSPE will receive an inquiry to qualify the loop. OSPE will issue a job to condition the loop if needed, e.g., cutting off bridged tap. Special construction charges apply for any conditioning of the loop.

Billing is applicable for preparing a cost estimate if the CLEC later cancels the order. The CLEC must agree to pay for an estimate should they decide not to proceed with the order after getting the estimate. OSPE will prepare a cost estimate and forward it for approval using the procedures found in paragraph 5.7.

Follow the procedures in Section 5 for special construction charges.

8.5 Step by Step SI procedure for UDL-2W/EE & UDL-4W/EE (ADSL/HDSL) Loops

1) OSPE will receive the SI from the Account Team/CRSG and the first two sections, "General Information" and "Customer Information" of the form will be populated. (See example of UCL SI located in Appendix C.)
2) For UDL-2W/EE & UDL-4W/EE item one or two or three will be checked in the "General Information" section. Two wire ADSL type loops will have item number one checked, two

[5] [FRN's can be from 1 to 20 alphanumeric characters in length with no spaces or special characters. For example, it might follow a format similar to XDSL**X**SI#**X**DATE. Where XDSL indicates that this loop is being reserved for a CLEC, SI# is the Service Inquiry number and DATE is the date the facility was reserved with an "X" to separate the fields. For example, an FRN for a CLEC circuit could be XDSL**X**63739U**X**112299. Use of a job authority number for an FRN is not recommended. This limits the SI number to eight or less characters.]

wire HDSL type loops will have item number two checked and four wire HDSL type loops will have item number three checked. The "Class of Service" is listed by each choice; UAL is for UDL-2W/EE used for ADSL, UHL is for UDL-2W/EE or UDL-4W/EE used for HDSL. OSPE will check available facilities and fill out only one of the five choices in the "Outside Plant Engineering" section of the SI.

a) If facilities are available OSPE will place a facility reservation in LFACS (See Paragraph 8.4, Footnote #5.) OSPE will check off item one in the "Outside Plant Engineering" section and place the FRN and facility cable and pair on the SI and send it back to the originator. The FRN will be effective for 10 business days.

b) If facilities are out of range then no FRN will be possible and OSPE will check off item two in the "Outside Plant Engineering" section, indicating that facilities are out of range and cannot be provided. **OSPE should place a note in the "Comments" section to indicate why the loop is out of range. An example of an answer for an UDL-2W/EE would be: "Loop consists of 11 kft of 26 gauge cable and exceeds the CSA guidelines for 26 gauge cable" or "This is an all fiber area, no copper facilities exist." An answer of "Loop to long 11 kft" is not sufficient to explain why the loop is too long. If the loop would qualify for a different type of unbundled element place an additional note in the "Comments section; "This loop does qualify for UCL." An example for UCL would be: "Loop calculates to a resistance of 1500 ohms" or "Loop length is 20 kft". Give the CLEC sufficient information to determine if another loop type could be ordered such as; "Loop could qualify for UCL if BT is removed."** CLECs that order UDL-2W/EE may want to order UCL if the loop cannot be qualified for UDL-2W/EE.

c) If no compatible facilities are available but facilities could be provided by a job and SC **is not applicable**, the job number and construction interval will be indicated on the spaces provided on item three in the "Outside Plant Engineering" section. The SI will then be returned to the originator. In this case no FRNs will be supplied. The service orders should be issued without FRNs and then OSPE will answer the service orders to the job. The interval quoted on the SI will be in calendar days and is measured from the reception of the SO in the SAC to the time the service is available. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered.

d) If no compatible facilities are available but facilities could be provided by a job and SC **is applicable**, check off item four in the "Outside Plant Engineering" section. Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of special construction charges. If the CLEC agrees to the quote conditions, OSPE will prepare an "Authorization Letter" which will contain a detailed description of the work and the total billable amount. The completion interval and job number will be supplied on the job quote. The SI will then be returned to the originator. No FRNs will be supplied. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered. OSPE will answer the service orders to the job.

e) If there are no compatible facilities but Line and Station Transfers (LSTs) can be made to make facilities available, or if the OSPE answers that they will clear defective pairs, OSPE will check off item five and its corresponding CDP or LST answer. OSPE will not give FRNs. OSPE will make sufficient remarks in the "Comments" section to inform the Account team/CRSG that facilities are not immediately available but will be made available via cuts (LSTs), clearing defective pairs (CDPs), or a job. The Account Team/CRSG will pass this to the LCSC and they will issue the service orders without facility reservations. This may mean that the orders will PF and OSPE will be required to answer the orders to cuts, clear defective pairs or a job. OSPE should only answer an order to clear defective pairs if there is a reasonable expectation that the facilities can be cleared.

3) The CLEC must be contacted by the CRSG/Account Team for approval to proceed if special construction is involved. OSPE will not proceed with a cost estimate until the CLEC confirms to the CRSG/Account Team that they will pay for the cost estimate if they decided not to proceed with the construction after obtaining the cost estimate. This confirmation should be sent to OSPE via the check boxes on the SI in the Customer Information Section. These check boxes will be used by the Account team/CRSG to indicate that the CLEC agrees or does not agree to quote terms. The Account Team resends the SI with one of these boxes selected. The date the CLEC was contacted will also be supplied to document the decision. If the CLEC tells the Account Team/CRSG that they want a quote up front on the original SI then this check box may already be checked when OSPE receives it the first time. If the SAC receives a SI that has this box populated they should proceed with the SC quote if one is needed.

4) After obtaining CLEC approval to proceed with the cost estimate, OSPE will prepare a detailed cost estimate of the special construction necessary to provision the UCL following existing billing guidelines. OSPE has a target interval of 10 days to complete the cost estimate and return it to the originator. (See Section 5.7 Special Construction Process.) Upon finalization of the special construction process OSPE will build the facilities.

5) IF the CLEC decides not to pay for the special construction, OSPE must prepare a billing job to recover the costs associated with the price quote. (See Section 5.7 Special Construction Process.)

8.6 UDL-4W/DI (DS1 & Primary Rate ISDN)

UDL-4W/DI loops are equivalent to our existing DS1 loops. Existing provisioning guidelines will apply. Provisioning will include any repeaters or other electronics to provide this service. The facility includes any office repeaters, line repeaters and/or multiplexer equipment.

8.7 UDL-4W/D0 (4 Wire Digital Data DS0)

This service is equivalent to our DDAS service. The same design criteria that are used for DDAS should be used to provide UDL-4W/D0 service.

8.8 UDL-OF/D3 (Fiber Optic DS3)

This service is available today as a Lightgate Local Channel loop. Use existing provisioning guidelines for these requests. UE3 is the class of service.

9 Unbundled Copper Loop (UCL)

9.1 Unbundled Copper Loop (UCL) is a dedicated metallic transmission facility from BST's MDF to a customer's premises including the NID. It will consist of non-loaded copper with a maximum total length of 18 kft and up to an additional 6 kft of bridged tap. (The DC electrical path should not exceed 18 kft.) The DC resistance of a single pair should not exceed 1300Ω. This loop is commonly referred to as a "dry copper" loop because it does not have any intervening equipment such as load coils, repeaters, etc., between the end user premises and the serving wire center. BST will ensure that the UCL has electrical continuity and provides balance relative to tip and ring. These loops are not designed or intended to provide any particular service. The loop may be attached to a variety of equipment both at the CLEC's collocation space and the end user premises. BST does not guarantee a particular bit rate or service associated with these loops.

9.2 UCLs will be delivered to the CLEC at their collocation space via a cross-connect. This cross-connect element will be provisioned out of the Collocation offering. Once this connection is made, the CLEC will provide the equipment and/or transport needed to provide the desired service to their end user. Since BST will not know what type service is being placed on these copper pairs it is not possible to hand off these loops in any other manner.

9.3 UCL will be a designed circuit and BST will provide a Design Layout Record (DLR). UCLs will be provisioned with a test point.

9.4 BST will need to utilize the Service Inquiry process to determine if the requested facilities are available to a particular customer address. If facilities are not available, the CLEC will be required to pay Special Construction charges if they want BST to place facilities to a location where they do not currently exist. There will be some instances where UCL will not be available, (i.e., in an all fiber area).

9.5 A copy of the "UDL-2W/EE, UDL-4W/EE or UCL Unbundled Loop Service Inquiry" form is attached as Appendix C. The SI will originate from the Account Team/CRSG and be forwarded to OSPE. OSPE will determine if compatible facilities exist, reserve the facilities and return the completed SI to the Account Team/CRSG within **48 hours**. The Account Team/CRSG will forward the completed SI to the LCSC. If facilities exist, the LCSC will issue the service order and the facilities reserved by OSPE will be assigned by LFACS. OSPE will need to reserve the facilities using facility reservation numbers and ensure that a valid loop make-up exists in LFACS. (See Paragraph 8.4, Footnote #5.)

9.6 This loop is limited to the criteria noted above (See exception in NOTE below.) If the fundamental loop design requires loaded plant, i.e., > 18kf, then the box on the SI should be marked indicating that the UCL cannot be provided. If the loop does not meet the UCL design parameters but could meet them by unloading or removing bridged tap (only on loops < 18kf) then SC will apply and the box on the SI indicating SC should be marked. **Billing is applicable for preparing a cost estimate if the CLEC later cancels the order**. The CLEC must agree to pay for an estimate should they decide not to proceed with the order after getting the estimate. OSPE will prepare a cost estimate and forward it for approval using the procedures found in paragraph 5.7.

NOTE: Some CLEC contracts obligate BST to provide an unencumbered copper loop at any distance from the central office, if they exist. This will require BST to unload pairs properly designed for voice grade service that exceed 18kf from the CO. The CLEC will not know initially that the loop will exceed 18kf. Therefore the following scenario can occur:

A. CLEC requests UCL via SI
B. OSPE answers the loop is out of limits (>18kf)
C. The CLEC requests a copper loop even if over 18kf (The Acct. Team/CRSG checks off the line "____Provide UCL loop >18kf as an exception."
D. OSPE prepares SC estimate ands forwards to CLEC
E. CLEC accepts estimate and facilities are built.

There is a check off box on the SI in the General Information section, to indicate the CLEC requests an out of range UCL loop. The Account team/CRSG will check off this box and re-send the SI to OSPE if the CLEC wants to pursue getting a loop over 18kf.

9.7 BST is not obligated to provide copper loops where none exist today. Certain areas or wire centers are fed by fiber only. If BST does not use copper facilities then the answer back to the CLEC will be to check off the box indicating the facilities cannot be provided.

9.8 Step by Step SI Procedure for UCL

1) OSPE will receive the SI from the Account Team/CRSG and the first two sections, "General Information" and "Customer Information" of the form will be populated. (See example of UCL SI located in Appendix C.)

2) In the case of a new UCL loop item four in the "General Information" section will be checked. OSPE will check available facilities and fill out only one of the five choices in the "Outside Plant Engineering" section of the SI.

   a) If facilities are available OSPE will place a facility reservation in LFACS (See Paragraph 8.4, Footnote #5.) OSPE will check off item one in the "Outside Plant Engineering" section and place the FRN and facility cable and pair on the SI and send it back to the originator. The FRN will be effective for 10 business days.

   b) If facilities are out of range then no FRN will be possible and OSPE will check item two in the "Outside Plant Engineering" section, indicating that facilities are out of range and

cannot be provided. **OSPE should place a note in the "Comments" section to indicate why the loop is out of range. An example of an answer for an UCL would be: "Loop calculates to a resistance of 1500 ohms", "This is an all fiber area, no copper facilities exist" or "Loop length is 20 kft". An answer of "Loop to long " is not sufficient to explain why the loop is too long.** (The Account Team/CRSG may return the SI to OSPE if the CLEC has provision in its contract to obtain an unbundled copper loop greater than 18kf. The box labeled "provide loop > 18kf as exception" in the general information section will then be checked. Should this occur, OSPE would reserve any existing compatible facilities as detailed in "a" above. If there are no compatible facilities proceed to step "c" below.)

c) If there are no compatible facilities are available but facilities could be provided by a job and SC **is not** applicable, the job number will be indicated on the space provided on item three in the "Outside Plant Engineering" section. The SI then will be returned to the originator. In this case no FRNs will be supplied. The service orders should be issued without FRNs and then will be answered to the job. The interval quoted on the SI will be in calendar days and is measured from the reception of the SO in the SAC to the time the service is available. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered.

d) If no compatible facilities are available but facilities could be provided by a job and SC **is** applicable, check off item four in the "Outside Plant Engineering" section. Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of special construction charges. If the CLEC agrees to the quote conditions, OSPE will prepare an "Authorization Letter" which will contain a detailed description of the work and the total billable amount. The completion interval and job number will be supplied on the job quote. The SI will then be returned to the originator. No FRNs will be supplied. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered. The service orders should be issued without FRNs and then OSPE will answer the service orders to the job.

e) If there are no compatible facilities but Line and Station Transfers (LSTs) can be made to make facilities available, or if the OSPE answers that they will clear defective pairs, OSPE will check off item five and its corresponding CDP or LST answer. OSPE will not give FRNs. OSPE will make sufficient remarks in the comments section to inform the Account team/CRSG that facilities are not immediately available but will be made available via cuts (LSTs), clearing defective pairs (CDPs), or a job. The Account Team/CRSG will pass this to the LCSC and they will issue the service orders without facility reservations. This may mean that the orders will PF and OSPE will be required to answer the orders to cuts, clear defective pairs or a job. OSPE should only answer an order to clear defective pairs if there is a reasonable expectation that the facilities can be cleared.

3) For the conversion of an existing loop, item number five in the "General Information" section will be checked off and the existing telephone number will be indicated. The BST service will be disconnected and the entire loop will be given to the CLEC. OSPE must check the

existing loop to make sure it meets the UCL design parameters. OSPE will fill out only one of the five choices in the "Outside Plant Engineering" section of the SI.

a) If the existing loop meets design parameters, OSPE will check off item one and place in the FRN field on the SI the following: "Note: Reuse existing loop". In the cable and pair field put the existing cable and pair designation.

b) If the loop does not meet UCL design parameters, OSPE will search to see if there are alternate facilitates that meet UCL parameters. If an alternative is found, OSPE will chose a total new loop whenever possible. **This is the recommended process. It avoids many problems with getting the correct facilities assigned. However, it does require an end customer site visit by SSI&M not required if reusing the F2/Fn facilities.**

   (a) OSPE reserves a new loop from the CO to the customer premises (this includes F1/F2/Fn).
      (i) The FRN is noted on the SI on item one of the "Outside Plant Engineering" section and the LCSC will put that FRN on the SO. OSPE will place a note in the "Comments" section indicating to use the new assignments rather than reuse the old.
      (ii) When LFACS sees the FRN it will assign the new facilities.
      (iii) SSI&M will dispatch to the customer premises and any intermediate cross-boxes to work the order.

   (b) In areas with tight F2/Fn facilities it might be necessary to reuse F2/Fn facilities due to no spares.
      (i) OSPE will note on the SI in the "Outside Plant Engineering" section on item one the new F1 pair and the old F2 pair. In the "Comments" section OSPE will place a note that the F2 facility must be reused and to use the new F1 facility (the F2/Fn pair(s) need to be reused.)
      (ii) LCSC will place remarks on the SO to tell the AFIG what pairs to use and add MAP L which will mark the order for manual handling.
      (iii) AFIG will need to read the remarks in order to pick up the correct facilities. **There is a danger here that the order will be assigned using the existing non-compatible facilities and this will not be discovered until the order is worked.**

c) If the existing loop does not meet UCL parameters and there are no alternate facilities the OSPE must determine if the facilities fall in an area where UCL cannot be provided and check off item two in the "Outside Plant Engineering" section. OSPE will then return the SI to the originator. (The Account Team/CRSG may return the SI to OSPE if the CLEC has provision in its contract to obtain an unbundled copper loop greater than 18kf. The box labeled "provide loop > 18kf as exception" in the general information section will be checked. Should this occur, OSPE would reserve any existing compatible facilities as detailed in "a" above. If there are no compatible facilities proceed to step "d" below.)

d) If no compatible facilities are available but facilities could be provided by a job and SC **is not** applicable, the job number and construction interval will be indicated on the spaces provided on item three in the "Outside Plant Engineering" section. The SI will then be

returned to the originator. In this case no FRNs will be supplied. The service orders should be issued without FRNs and then OSPE will answer the service orders to the job. The interval quoted on the SI will be in calendar days and is measured from the reception of the SO in the SAC to the time the service is available. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered.

e) If no compatible facilities are available but facilities could be provided by a job and SC **is** applicable, check off item four in the "Outside Plant Engineering" section. Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of special construction charges. If the CLEC agrees to the quote conditions, OSPE will prepare an "Authorization Letter" which will contain a detailed description of the work and the total billable amount. The completion interval and job number will be supplied on the job quote. The SI will then be returned to the originator. No FRNs will be supplied. After the job is worked the service orders should be issued without FRNs and they will be answered to the job. The service order originator should issue the service orders with a due date that includes the job interval plus the standard provisioning interval for the type service being ordered.

f) If there are no compatible facilities but Line and Station Transfers (LSTs) can be made to make facilities available, or if the OSPE answers that they will clear defective pairs, OSPE will check off item five and its corresponding CDP or LST answer. OSPE will not give FRNs. OSPE will make sufficient remarks in the "Comments" section to inform the Account team/CRSG that facilities are not immediately available but will be made available via cuts (LSTs), clearing defective pairs (CDPs), or a job. The Account Team/CRSG will pass this to the LCSC and they will issue the service orders without facility reservations. This may mean that the orders will PF and OSPE will be required to answer the orders to cuts, clear defective pairs or a job. OSPE should only answer an order to clear defective pairs if there is a reasonable expectation that the facilities can be cleared.

4) The CLEC must be contacted by the CRSG/Account Team for approval to proceed if special construction is involved. OSPE will not proceed with a cost estimate until the CLEC confirms to the CRSG/Account Team that they will pay for the cost estimate if they decided not to proceed with the construction after obtaining the cost estimate. This confirmation should be sent to OSPE via the check boxes on the SI in the Customer Information Section. These check boxes will be used by the Account team/CRSG to indicate that the CLEC agrees or does not agree to quote terms. The Account Team will resend the SI with one of these boxes selected. The date the CLEC was contacted will also be supplied to document the decision. If the CLEC tells the Account Team/CRSG that they want a quote up front on the original SI then this check box may already be checked when OSPE receives it the first time. If the SAC receives a SI that has this box populated they should proceed with the SC quote if one is needed.

5) After obtaining CLEC approval to proceed with the cost estimate, OSPE will prepare a detailed cost estimate of the special construction necessary to provision the UCL following existing billing guidelines. OSPE has a target interval of 10 days to complete the cost

estimate and return it to the originator. (See Section 5.7 Special Construction Process.) Upon finalization of the special construction process OSPE will build the UCL facilities.

6) IF the CLEC decides not to pay for the special construction, OSPE must prepare a billing job to recover the costs associated with the price quote. (See Section 5.7 Special Construction Process.)

10 Unbundled Sub-Loop Concentration (USLC)

10.1 USLC will allow a CLEC to concentrate loop distribution elements provided by the CLEC onto multiple DS1s for the purpose of connecting the loop distribution elements (at a concentrated level) to BST's feeder system. BST will not connect its USL offering with USLC (See exception below). This concentration will take place at an existing BST Remote Terminal (RT) where spare capacity exists. BST will transport the concentrated DS1 circuits back to the serving wire center (SWC) for termination in a CLEC's collocation space. The USLC offering can be ordered with or without a protect DS1. BST will not provide a Central Office Terminal (COT) for this offering. The hand-off to the CLEC is at the DS1 level.

The 96 pairs associated with each USLC system will be terminated in a BST cross-connect facility. This cross-connect facility will be connected to a CLEC's facility to allow the CLEC to connect its distribution facilities to the BST provided USLC system. The CLEC is responsible for running its distribution cable in close proximity of the BST cross-box and for providing the needed cabling between the BST cross-box and the CLEC cross-box. BST will connect the CLEC cable to the BST cross-box. Only BST personnel will be allowed to work in the BST cross-box.

EXCEPTION: Some CLEC contracts currently allow UNE combinations. BST will honor contracts that allow combinations. In this application the combinations would be for USLC and USL.

10.2 Unbundled Sub-Loop Concentration (USLC) will always be associated with a Service Inquiry (SI). The SI will be originated by the Account Team/CRSG (originator) and will be routed to the OSPE Loop Capacity Manager (LCM). OSPE will forward to CCM upon a firm order or return to originator for an inquiry. An example of the SI is shown in Appendix F and is the same SI that is used for ULC. A detailed flowchart showing the steps required to process a USLC SI is shown in Figure 4.

10.3 USLC consists of a 'digital carrier system remote terminal' located in a BST Remote Terminal. The RT is connected to the CLEC via two, three or four T1 facilities; a protection DS1 is optional. The T1 facilities will be provisioned on OSPE facilities from the RT to the central office. The T1 facilities can then be routed to the CLEC collocation space in the serving central office.

10.4 USLC is offered as a 96-channel system and is limited to a Lucent SLC Series 5 DCBA configured as an EFPB TR008 Mode 1/ Mode 2 or feature package FP303. EFPB TR008 Mode

1 requires four T1 facilities and Mode 2 requires two T1 facilities. Feature Package FP303 must have a minimum of two T1's and can grow by increments of one T1 to a maximum of four per system. The CLEC may opt for a protect T1 line for each 96-channel system. These systems will be engineered by OSPE. OSPE will provide for vendor installation through an EWO or a TEO. The account code for these systems will be 257C.

The 96-channel systems are designated as SYS A and SYS B for ordering and billing purposes. SYS A is the first 96-channel system provisioned in a dual channel bank; SYS B is the second 96-channel bank provisioned in the same dual channel bank. CLECs cannot have a SYS B without a previous SYS A being in place; however, they can have a second SYS A without turning up a SYS B.

Due to alarm and testing issues, it is required that a single customer's SYS A and SYS B use the same dual channel bank assembly. If two different customers shared a dual channel bank, the customer owning the blue system (SYS A) would be able to monitor and test the circuits belonging to the other customer using the white system (SYS B). **However, both systems on the same dual channel bank do not have to be optioned the same for concentration, protection and switch interface type (TR008/TR303).**

The system type will be ISLC5 and the entire 192 pair gain derived pairs will be wired to the BST cross-box, even if the CLEC only orders one system. This will facilitate turning up the second system in the future. If the CLEC only requests one system and the termination of the extra 96 pairs for system "B" triggers a cross-box placement or replacement, then do not terminate the extra 96 pairs at that time. Any costs for replacing cross-boxes triggered by USLC will be recovered by special construction.

10.5 These systems will be inventoried in LFACS similar to any other OSPE carrier system. OSPE is responsible for ensuring that LFACS is loaded with the correct information. The system type will be ISLC5. The system numbers are developed in order to link the SYS A and SYS B systems to one CLEC and will follow this form:

SYS Num.	Description
A101	System A in first USLC DCBA in the wire center
B101	System B in first DCBA in the wire center
A102	System A in second DCBA in the wire center
B102	System B in the second DCBA in the wire center
etc.	

The A and B designations will designate the blue and white systems and the 101 will tie them together for future identification as being located in the same DCBA.

This system number range is reserved for USLC systems. The out cable designation for USLC will be UPGnn, 1-96, etc., where UPG is a unique cable prefix to identify Unbundled Loop Concentration systems followed by one or two numbers. This unique naming convention will make it easier to identify these systems in our records.

10.6 OSPE will answer the SI and forward it to CCM. CCM will return the SI to the originator. When the SI is issued as a firm order, OSPE will issue the appropriate authorization. Input into LFACS, LMOS and COSMOS will be accomplished via existing methods (EWO).

10.7 USLC can only be offered in conjunction with a CLEC provided F2 where the CLEC places their cross-box in close proximity to our cross-box, where the USLC UPG pairs are terminated. (See Figure 2 and see exception in Section 10.1.)

10.8 The costs associated with placing a new cross-box or a new DLC cabinet to provide the USLC will be recovered from the CLEC via special construction charges.

10.9 OSPE will determine if a new DLC cabinet or new cross-box will be required to provide USLC. The OSPE section of the SI has a section for special construction. The OSPE will fill this out and send it on to CCM. When the originator receives the SI they will contact the CLEC to see if they wish to pay the special construction costs.

We will use our existing procedures for special construction billing to notify the CLEC of the special construction charges and to obtain authorization to construct the facilities. See RL: 97-08-016BT for Billing Methods and Procedures.

10.10 The CLEC must designate how the low speed channel units will be used since BellSouth must set them up this way in the LFACS inventory system. The CLEC will designate the Line Terminal Status's (LTS) for the UPG pairs on the SI. If the CLEC desires to use a channel unit in a manner different from how it was designated on the original Service Inquiry, OSPE must initiate the change with LFACS after the circuit design fails. (The intent is to not require a new Service Inquiry for a slot designation change.)

10.11 TollGrade MCU-5405 for Testing

The Series 5 DCB will NOT be wired to the BST testing network. **DO NOT WIRE THE CTU FOR EITHER THE BLUE OR THE WHITE SYSTEM OF A CLEC USLC DCBA TO THE BST METALLIC TEST PAIR, RMU OR TOLLGRADE MCU-5405 PLUG.** Do not daisy-chain these test pairs with the BST test pairs. Test of the Unbundled sub-loops will be the responsibility of the CLEC.

The CLEC has the option of ordering a Test Circuit to make its own tests. This Test Circuit will be an option on the SI. If the CLEC chooses this option, it will be necessary to place an MCU-5405 Metallic Channel Unit plug, made by TollGrade Communications, Inc., in slot 1 in the first DCBA. Any other systems at that location belonging to that particular CLEC will be wired to that test circuit, up to ten systems. Any systems beyond ten will require another Test Circuit. This follows the rule that up to 1000 pairs can be tested through a test pair facility. At any one site, a maximum of five DCBAs can be wired to the CLEC test facility being provided by the MCU-5405. Both the white and the blue systems should be connected to this test facility. Each

CLEC facility must be kept segregated from other CLECs as well as from the BST test facilities. Reference the following for MCU information:

RL: 94-08-013BT	Product Approval of the MCU-5405
RL: 95-07-029BT	OSPE methods and Procedures for Designing the TollGrade Metallic Channel Unit (MCU)
363-200-033BT	Outside Plant Engineering Guidelines and Central Office Terminal and Remote Terminal Installation and Maintenance of TollGrade MCU Metallic Channel Unit for MLT

Please note that this test circuit will NOT be connected to BST's MLT system. BST will not be able to test through this circuit. This circuit will allow the CLEC to test through their MLT compatible testing system. We will not inventory this circuit as an MLT test circuit in LMOS.

Line Terminal Status's (LTS) input into LFACS are as follows:

UPGxx, 1	D	SPD=D
UPGxx,2	NAD	SPD=D

Where xx is the numeric cable identifier for the system.

This LTS is using the procedure for integrated Series 5 systems, which is the system type used for USLC. However, the side door port option will not be actually used for this circuit. The Central Office end of an USLC system resides with the CLEC and it will be the CLEC responsibility to place the necessary equipment to utilize the MCU-5405 circuit at the CO end.

Do not request a communication circuit from corporate communications.

10.12 *Flow of SI* - The SI is originated at the Account Team/CRSG and sent to OSPE first, who processes it and then forwards it to CCM, who completes the SI and then returns it to the originator. OSPE will handle having the system loaded in LFACS by issuing an EWO.

10.13 Step by Step SI Procedure for USLC

When OSPE receives the SI from the originator (LCSC), "Part I- Ordering Section," will have been completed by the originator. The SI can have one of four statuses; Inquiry, Firm Order, Update, or Cancel. All requests for USLC should start with an Inquiry. Using this information OSPE will complete **"Part II -- OSPE Response Section."**

Fill in the appropriate OSPE contact information.

Check off the appropriate line to show if facilities are available. The three alternatives are:

_____ Facilities and equipment available on _____. *Check off this line if the DLC equipment structure and cross-box have sufficient room to accommodate the request.*

_____ Facilities not available, special construction required. *Check off this line if the DLC equipment structure and/or the cross-box is inadequate for the request but the site is suitable for expansion.*

_____ Facilities not available, construction not possible. *Check off this line if the DLC equipment structure or the cross-box is inadequate for the request and it is not possible to replace/add sufficient facilities to meet the request. If this option is checked we are informing the CLEC we cannot provide USLC service at this site.*

Input the vendor, equipment and options that will be used. Currently the only equipment we will be using is SLC Series 5.

Input the RT CLLI code.

Input whether or not an OSPE EWO is required and the EWO number.

Input the specific cable pair assignments for the supporting T1s.

OSPE will complete the 'Pair Gain System Number and Cable and Count' section. OSPE will assign the next available pair gain system number (A101, B101, etc.) and the next available UPG cable count.

After Part 2 is completed OSPE will forward the SI to CCM.

CCM will complete 'Part III -- CCM Response Section' and then forward the SI to the originator. Upon receipt of a firm order SI, OSPE prepares the necessary EWO to establish the USLC system in LFACS, COSMOS and LMOS.

A note must be put on the EWO that sets up the USLC system. This note will inform the AFIG to input a new address associated with the RTA of the CLEC system and will allow Service Orders to flow through.

NOTE: Please input the following address to RSAG associated with terminal address:
RTA: _____

RSAG/LFACS FACILITY ADDRESS _____

FLR: _____

In addition the UPG pairs terminated in the cross-box need to be restricted.

Complete the 'FLR' line by assigning a unique identifier for this CLEC. The identifier is derived from the CLEC's CCNA designation. This information is found in Part 1 of the form under the customer information. The CCNA designation is followed by a numeric, such as 1. For example, if MCI was applying for ULC, their CCNA is MCI, so the FLR name would be MCI1 for the first appearance of a ULC in that location. Additions to the

ULC systems can use the same FLR name as long as the UPG pairs terminate at the same location. If the UPG pairs for new additions terminate in a different location, then a new FLR name can be used by incrementing the numeric designation by one. **NOTE: This field will uniquely identify the CLEC's terminal from all other CLECs. We use the cable name for that particular CLEC in this field. This is not the actual floor where the CLEC is located.**

10.14 Common Plug-Ins for USLC

The following table shows the common plugs needed to provision USLC. The plugs are the standard set for EFPB. Options for the plugs should reflect EFPB integrated into the switch.

EQUIPMENT TYPE: Lucent SLC Series 5, Remote Terminal

CLEI	NAME	ABBR.	NOTE	SYS A	SYS B	SYS A&B
5SCD40D	AUA11C	PCU		3	2	5
5SCB4B0	AUA114	CFU		1	1	2
5SC26T0	MCU-5405 TOLLGRADE (Optional)	CU	1	1	0	1
5SPQABU 5SC4NRN	AUA105B for TR008 AUA112B for TR303	TRU	5, 6	2	2	4
5SPQAAK 5SPQAB8	MC97776A1B for TR008 MC97777A1B for TR303	BCU	6	1	1	2
5SPQACP	AUB27C	ADU		1	1	2
5SCDC01	AUB22	CTU		1	0	1
5SLI1LE 5SLI5R5 5SLI6S5	AUA61M (DSX) AUA62E/F (Powering) AUA64E/F (Looping)	LIU	2, 3, 6	2-5	2-5	4-10
5SCS159 5SPQABC	AUA73B for TR008 AUA74B for TR303	LSU	4, 6	1	1	2
5SPQACL	993A TRU Connector for TR303 Only	TRU Connector	5	2	2	4

NOTES:

1. This plug is to be ordered on the customer's first DCB and every fifth system thereafter. Order only if customer selects the 'Test Ckt' option on the Service Inquiry.
2. If the customer is ordering two DS1s, order only LIUs for the A and C slots. If he is ordering three DS1s (TR303 only), order only LIUs for the A, B, and C slots. If he is ordering four DS1s, order LIUs for slots A, B, C, and D. See Note 3 also.
3. If customer ordered protection lines, order LIUs for the P slots. See note 2 also.
4. If customer ordered protection lines, order this plug.
5. TRU face plate connector required for TR303 option.

6. Both SYS A and B must be optioned for TR008 or TR303. Order sufficient quantity of LIU cards to provide service as indicated on the SI (Mode 1, Mode 2, TR303, protect, etc.)

Table 1 -- Series 5 Channel Bank Commons For USLC:

11 Unbundled Sub-Loop Feeder (USLF)

11.1 USLF is a dedicated transmission facility that BST provides from a BST Central Office to a BST cross-connect facility. This offering will allow a CLEC to order the feeder portion of an unbundled loop and connect it to a CLEC provided distribution facility. The USLF can be configured in the same manner as UVL and UDL loops. The following is a list of the offerings:

USLF-2W/V	2-wire voice
USLF-4W/V	4-wire voice
USLF-2W/I	2-wire ISDN (Basic rate ISDN)
USLF-2W/EE	2-wire Enhanced Electronics (ADSL or HDSL)
USLF-4W/EE	4-wire Enhanced Electronics (HDSL)
USLF-4W/D0	4-wire DS0 (DDAS)
USLF-4W/DI	4-wire DS1 and ISDN Primary rate

11.2 The hand off point for this service will be at a BST cross connect point. The USLF offering will need to be set up in advance of any service order activity and therefore will always be preceded with a SI. The SI has not been developed at this time. We do not currently have a requirement to offer USLF. However, if a CLEC makes a request for a USLF we will have to eventually provide it.

11.3 The USLF pairs will be terminated in a BST cross-connect facility (similar to USLC). This cross-connect facility will be connected to a CLEC's facility to allow the CLEC to connect its own distribution facilities to the BST provided USLF. The CLEC is responsible for running its distribution cable in close proximity of the BST cross-box and for providing the needed cabling between the BST cross-box and the CLEC cross-box. BST will connect the CLEC cable to the BST cross-box. Only BST personnel will be allowed to work in the BST cross-box.

11.4 Special construction will apply if the cross-box requires replacement.

11.5 OSPE should not receive any requests for this offering at this time. No USOCS have been operationalized and there currently is no way for a CLEC to order this service

12 Unbundled Sub-Loop (USL)

12.1 USL consists of the distribution loop from a BST cross connect point to, and including, the customer premise NI. This is usually referred to as the F2 facility but it could include F3 and above. The CLEC will place a cable to the BellSouth or cross connect point to provide continuity

to the CLEC's feeder facilities. This creates a tie cable between the CLEC facilities and the BST facilities and will allow the CLEC to provide their feeder facilities to interface with our USL.

12.2 There are two possible physical configurations for USL:

1. The cross connect point is located in an external (outside) BST crossbox. These crossboxes typically have stubs terminated on binding posts but some are harness type boxes where the cables are directly spliced to the binding post terminations.
2. Another possible configuration is inside a building. A CLEC places a feeder facility in the main equipment room and requests USL from BST to get to the riser terminals. This only applies for that riser cable inventoried in LFACS as Fn (distribution) facilities. (Unbundled Network Terminating Wire (UNTW) is a separate unbundled element and is discussed separately in Section 15. If NTW is part of the USL facility, then the NTW is included in the USL loop. See definition of USL in Section 12.1.)

12.3 In Tennessee, the Tennessee Regulatory Authority ordered BellSouth to provide separate rates for the riser cable portion of the USL. Therefore in Tennessee there will be two USL offerings.

1. USL is the distribution loop from a BST cross connect box to, and including, the customer premise NI (includes any riser cable). This is the same definition used in all other states.
2. USL-R is referred to as riser cable and is the loop distribution facility originating in the main equipment room of a multi-story building and distributed throughout that one building. Access to USL-R will be in the building equipment room.

Both of these offerings are provisioned in the same manner as USL in the other states.

12.4 BellSouth will provide Unbundled Sub-Loops where possible. Through the firm order Service Inquiry (SI) process, BellSouth will determine if it is feasible to place the required facilities where the CLEC has requested access to Unbundled Sub-Loops. If existing capacity is sufficient to meet the CLEC demand, then BellSouth will perform the set-up work as described in the next paragraph. If any work must be done to modify existing BellSouth facilities or add new facilities (other than adding the cross-connect panel in a building equipment room as noted below) to accommodate the CLEC's request for Unbundled Sub-Loops, BellSouth will use its Special Construction (SC) process to determine the additional costs required to provision the Unbundled Sub-Loops. The CLEC will then have the option of paying the one-time SC charge to modify the facilities to meet the CLEC's request.

12.5 SAC Responsibilities

The Service Inquiry will be routed to the SAC from the Account team/CRSG. The SAC will act as the single point of contact with the Account Team/CRSG and will log the SI and pass the SI to the facility engineers to determine feasibility. The facility engineer will make a field visit to

determine what work will be required to accommodate the CLEC. The SAC will respond back to the Account Team/CRSG with the results of the field survey via the SI.

12.6 During the initial set-up in a BellSouth cross-connect box in the field, the BellSouth technician will perform the necessary work to splice the CLEC's cable into the cross-connect box. **BST will terminate CLEC facilities in 25 pair increments.** For the set-up inside a building equipment room, BellSouth will perform the necessary work to install the cross-connect panel that will be used to provide access to the requested USLs and terminate the CLEC supplied feeder cable on this cross connect panel. Once the set-up is complete, the CLEC requested sub-loop pairs would be provisioned through the service order process based on the CLEC's submission of a LSR to the LCSC.

12.7 In a building environment, BST will place 66-type bridging blocks (capacity of 25 pairs each) as the termination for the CLEC facilities. The CLEC feeder facilities will be terminated on one side by BST personnel and the other side of the bridging block will be used to terminate the jumper to the BST USL on a service order basis. The bridging clips will provide a convenient isolation point for maintenance activities.

12.8 The costs associated with splicing the CLEC cable to the BST crossbox assumes average conditions and that the existing crossbox has sufficient binding posts to accommodate the CLEC request. If any extraordinary costs are associated with setting up the BST crossbox for USL, the special construction process should be used to recover them.

Extraordinary costs would include:

- removal and restoration of concrete or other high contract costs associated with unusual conditions,
- placement of any new termination blocks in existing outdoor cross connect boxes,
- replacement or expansion of existing crossbox due to insufficient size to accommodate the CLEC request,
- placement of new crossbox to accommodate the CLEC request,
- or in a building environment, any rearrangements to the existing building terminal needed to accommodate the CLEC terminations.

12.9 We will use our existing procedures for special construction billing to notify the CLEC of the special construction charges and to obtain authorization to construct the facilities. See RL: 97-08-016BT for Billing Methods and Procedures and see Section 5.7 Special Construction Process.

12.10 Unbundled Sub-Loop (USL) will always be associated with a Service Inquiry (SI). The SI will be originated by the Account team/CRSG and will be routed to OSPE. An example of the SI is shown in Appendix I. This SI is used to initially set up the USL facilities at a crossbox location.

12.11 SI Step By Step Process for USL Setup for a Cross Connect Point

1) The SI will be sent to OSPE with the "General Information," "Customer Information" and "CLEC Request" sections completed by the Account team/CRSG. Information supplied will be the CLEC name, contact information, Service Inquiry number, the address of the building or crossbox where the CLEC requests sub-loops and the number of tie pairs needed in 25 pair increments.

2) The OSPE 0will determine from the information supplied if the crossbox can accommodate the CLEC request.

   a) If the existing cross connect facility can accommodate the CLEC request, **OSPE will provide on item two, the job number and estimated completion date along with the cable name and pair range associated with the CLEC facilities**. This information will be passed back to the CLEC for their use in ordering the individual USLs. The cable naming convention is detailed in section 12.13. If SC is not required and since this is a firm order SI, OSPE will proceed to engineer the required job, issue the job to construction and insure that the job is completed before the ECD. Once the job is in the design phase, should the CLEC cancel its request for USL at this site, the CLEC will be liable for any costs incurred by BST, including engineering time. See RL: 97-08-016BT for Billing Methods and Procedures.

   b) If the existing crossbox cannot accommodate the request, OSPE will determine if special construction can be worked to modify the xbox to accommodate the CLEC request. If nothing can be done to accommodate the CLEC request, OSPE will check off item one under the "Outside Plant Engineering Response to Account Team/CRSG" section. Comments will be added to explain why the request cannot be accommodated.

   c) If special construction can be done, OSPE will check off item three "Special Construction Required" under the "Outside Plant Engineering Response to Account Team/CRSG" section. Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of special construction charges.

      i) The CLEC must be contacted by the CRSG/Account Team for approval to proceed if special construction is involved. OSPE will not proceed with a cost estimate until the CLEC confirms to the CRSG/Account Team that they will pay for the cost estimate if they decided not to proceed with the construction after obtaining the cost estimate. This confirmation should be sent to OSPE via the check boxes on the SI in the Customer Information Section. These check boxes will be used by the Account team/CRSG to indicate that the CLEC agrees or does not agree to quote terms. The Account Team resends the SI with one of these boxes selected. The date the CLEC was contacted will also be supplied to document the decision. If the CLEC tells the Account Team/CRSG that they want a quote up front on the original SI then this check box may already be checked when OSPE receives it the first time. If the SAC receives a SI that has this box populated they should proceed with the SC quote if one is needed.

d) OSPE will send the SI back to the originator and wait for confirmation from the CLEC to provide a quote. If the CLEC does not agree to pay for a process quote the process stops here.

e) After obtaining CLEC approval to proceed with the cost estimate, OSPE will prepare a detailed cost estimate of the special construction necessary for provisioning the request following existing billing guidelines. The completion interval and job number will be supplied on the job quote. OSPE has a target interval of 10 days to complete the cost estimate and return it to the originator. (See Section 5.7 Special Construction Process.) The SI will then be returned to the originator. Upon finalization of the special construction process OSPE will build the facilities.

f) IF the CLEC decides not to pay for the special construction, OSPE must prepare a billing job to recover the costs associated with the price quote. (See Section 5.7 Special Construction Process.)

3) OSPE will be responsible for notifying the originator of the actual job completion date of the setup job or if the ECD changes. Once the job completes, fill in the "Actual Completion Date" field on item two and re-send to the originator. OSPE must also notify the originator if the ECD changes during the provisioning process. This can be accomplished by modifying the ECD on item two in the "Outside Plant Engineering Response to Account Team/CRSG" section and adding comments to note that the ECD has changes, then re-send the SI to the originator.

4) OSPE will indicate in the "OSPE Response to LCSC" section the number of 25 pair blocks needed to terminate the CLEC cable. This calculation is simply the total number of pairs being terminated from the CLEC (in 25 pair increments) divided by 25. This number will be used to bill the CLEC for setup charges.

12.12 CLEC Provided F1 With USL

The CLEC will provide their own F1 facility and connect USL to their facilities for transport to their switch. Provisioning for this type of service is similar to the USLC offering.

The CLEC F1 will be inventoried in LFACS in the same manner as a BST feeder cable. The CLEC will bring its feeder cable to the BST cross connect facility and will be terminated like a BST feeder cable. FACS will inventory the cable as a F1 facility and will place a "constraint" and a "constraint origin" on the pairs. Assignment will be controlled by the CLEC in the same manner as the USLC UPG pairs. The facilities will also be inventoried in COSMOS using the fictitious frame data of F9901.

The tie in point for USL is the BST cross connect facility and this facility can be an outdoor enclosure or it can be a building terminal. If the tie in point is a BST outdoor enclosure, BST field forces will tie in the CLEC provided F1 facilities to the BST cross-box. If the tie in point is in a building terminal environment, BST will place new termination blocks for the CLEC facilities. BST will provide the cross connect jumper from the BST USL the CLEC F1 on a service order basis.

12.13 CLEC Provided F1 LFACS, COSMOS and LMOS Input

The F1 facilities must be inventoried in BST systems for BST to maintain the cross connects from the CLEC F1 to the BST provided USL. The OSPE EWO will be the source for LFACS input. There will always be an OSPE EWO associated with the initial setup of a cross connect box for USL

OSPE will show on the EWO the CLEC F1 as an in-count to the cross-box. A note will be placed on the construction drawing similar to the following:

> **NOTE: CABLE XSMW1, 1-675 is a CLEC provided F1 facility and does not appear in the BST central office. LFACS - Place Cable Pair Remark on records: "CLEC F1 CABLE" CNST=XSMW, CNST ORIG=D**
>
> (The field labeled CNST is populated with the first four characters of the CLEC cable name. The field named CNST ORIG is always populated with a "D" when used for this application.)

OSPE must also provide a loop make-up for the CLEC provided F1 facility. Place a note on the EWO similar to the following:

> **NOTE: LMU for CABLE XSMW1, 1-675 is .1 Kf of 24 gauge non-loaded cable.**

The cable naming convention is similar to the naming convention for collocation tie cables described in Section 16.4. It is based on the ACNA identifier for the CLEC with an X as a prefix and a numeric as a suffix. This will allow easy identification of the CLEC provided F1 facilities and allow a "hook" for excluding these cables from our monitoring programs.

See Appendix E for an example of the form **"CLEC Provided F1 Cable Input For LMOS and COSMOS."** This form should be FAX'ed to the COSMOS administrator for your area as shown in the following table.

COSMOS Administrator	System	Area
Joe Acquista 3336 Chamblee-Dunwoody Rd. Chamblee, GA 30341 TEL 770-452-5167 FAX 770-458-3896	bstx	Kentucky
	bstz	Tennessee
Robbie Garriett 12h13 - 300 S. Brevard St. Charlotte, NC 28202 TEL 704-417-0430 FAX 704-417-9348	bsiz	Carolinas

Wilda Mims 3336 Chamblee-Dunwoody Rd Chamblee, GA 30341 TEL 770-452-5170 FAX 770-458-3896	bsiy	Atlanta
Toni Prieto 8750 W. Oakland Pk. Blvd. Sunrise, FL 33351 TEL 954-742-1352 FAX 954-746-7037	bshy	SE Florida
	bsmz	Mississippi
Barbara Spraggins 2301 S.W. 100th Ave. Miami, FL 33165 TEL 305-552-1857 FAX 305-552-5862	bshx	N Florida
Emma Weathers 2nd Floor 2301 S. W. 100th Ave. Miami, FL 33165 TEL 305-552-5447 FAX 305-552-5862	bshz	SO Florida
Irma Williams Room 301 6767 Bundy Road New Orleans, LA TEL 504-253-7474 FAX 504-245-5062	bsmx	Louisiana
Christeen Yerby 3336 Chamblee-Dunwoody Rd. Chamblee, GA 30341 TEL 770-452-5169 FAX 770-458-3896	bsmy	Alabama
	bsiw	Outstate Georgia

Table 2 -- List of COSMOS Administrators

To fill out the **"CLEC Provided F1 Cable Input For LMOS and COSMOS"** form, follow the following directions:

OSPE must supply in --

"OSPE Originator" Section:

Name:	OSP Engineer name
Authorization No.	Input the OSPE authorization
Tel No.:	OSP Engineer telephone number
FAX No.:	OSP Engineer FAX Number
Wire Center Name	Input wire center name

WC CLLI	Input the CLLI of the wire center
FACS WC CODE:	Input the LFACS wire center code
NPA/NNX:	Input the NPA/NNX for the wire center
COSMOS WC:	Input the COSMOS identifier for the wire center
Service Inquiry Reference #	Input the SI number, if one exists.

"CLEC Provided F1 Cable -- Metallic Section:

"Cable Name and Range:" OSP engineer will place a cable name and range for the number of pairs terminated as shown on this line by CCM. The cable name will be the CLEC's CCNA identifier followed by a numeric (usually 1). The range will be based upon the total number of pairs the CLEC brings into out terminal. If the CLEC brings in a 200 pair cable then the range will be 1-200. Should the CLEC later add another 100 pairs the range of the new pairs would be 201-300, keeping the same cable identifier. **It is OSPE's responsibility to make sure that these cable names and counts do not duplicate existing facilities**. OSPE will need to check LFACS to check cable names and ranges.

"Frame & Vertical for COSMOS:" This field is always **F9901**.

"Permanent Remark:" This field is always "**CLEC F1 CABLE**."

13 Unbundled Loop Concentration (ULC)

13.1 ULC will allow a CLEC to concentrate multiple unbundled loops (UVL/UDL) at a BST central office onto multiple DS1s for the purpose of transporting unbundled loops from a BST central office back to the CLEC collocation space. The loops will terminate at the Main Distribution Frame (MDF) in the BST end office. They will then be cross-connected from the MDF to the concentrator. The ULC will then concentrate the loops onto two, three or four DS1 prime interfaces (depending on the total number of loops and the desired concentration level). At this point, the concentrator would deliver two, three or four DS1 prime interfaces to the DSX at that central office. From the DSX, a CLEC would be able to cross-connect to their collocation space. The ULC offering can be ordered with or without a protect DS1. (See Figure 3)

ULC will be engineered and administered by Circuit Capacity Management (CCM) and the facilities will be inventoried in TIRKS only. **OSPE is not involved in the provisioning of ULC. This section is for informational purposes only.**

13.2 Unbundled Loop Concentration (ULC) will always be associated with a Service Inquiry (SI). The SI will be originated by the Account team/CRSG and will be routed to CCM. An example of the SI is shown in Appendix F and is the same SI used for USLC.

13.3 ULC consists of a digital carrier system remote terminal located in BST's central office. The RT is connected to the CLEC via two, three or four T1 facilities. These T1 facilities will be routed to the CLEC collocation space in the serving central office.

13.4 The current offering is limited to a Lucent SLC Series 5 RT configured as a TR008 Mode 1 or Mode 2 system or as a TR303 system using FP303. Mode 1 requires four T1 facilities and Mode 2 requires two T1 facilities. Feature Package TR303 must have a minimum of two T1's and can grow by increments of one T1 to a maximum of four per system. The CLEC may opt for a protect T1 line for each 96-channel system. These systems will be engineered by CCM and CCM will provide for vendor installation through a TEO. The account code for the systems will be 357C. Due to alarm and testing issues it is required that the entire DCBA be dedicated to one CLEC.

13.5 These systems will carry designed circuits and will be inventoried in TIRKS only.

14 Unbundled Dark Fiber (UDF)

14.1 UDF procedures are covered in another document (RL: 97-06-003BT). UDF will always be associated with a Service Inquiry (SI). The SI will be originated by the Account team/CRSG and will be routed to CCM and OSPE. An example of the SI is shown in Appendix G.

14.2 UDF consists of a point-to-point arrangement between a customer premise and a BST central office or central offices. This arrangement consists of four optical fibers and fiber terminating equipment. UDF is offered without optical signal regeneration.

14.3 There will not be any specified performance objectives for this unbundled element. Our normal fiber provisioning procedures apply.

14.4 The costs associated with any facility rearrangements or placements required to provide the UDF will be recovered from the CLEC via special construction charges where allowed. See RL: 97-08-016BT for details on billing for special construction.

14.5 UDF will only be offered to companies as an unbundled element with companies whom BellSouth has a local service interconnection agreement that offers this item because the PSC or arbitration mandated it. See the summary below for the UDF offering requirements:

There is no requirement to provide UDF in FL, LA, MS, or NC. However, BST has decided to offer it where available. There is no requirement to build in above mentioned states.

Must provide UDF in AL, GA, KY, SC, and TN.

- In GA must provide only if the fiber is already constructed (no requirement to build)

- In KY existing fiber does not have to be used if BellSouth will use the fiber within 3 years for its own purposes.

- In AL, KY, SC, and TN special construction would have to be done if existing fibers are not available and the CLEC wishes to pay the special construction charges.

15 Unbundled Network Terminating Wire (UNTW)

15.1 General

The Unbundled Network Terminating Wire (UNTW) is a dedicated transmission facility that BST provides from the Wiring Closet/Garden Terminal (or other type of cross-connect point) at the point of termination of BST's loop distribution facilities, to the end user premises. UNTW circuits are non-designed and can be provisioned as 2 or 4-wire elements.

This element will be provided in Multi-Dwelling Units (MDUs) and/or Multi-Tenants Units (MTUs) where BST provides wiring all the way to the end-users premises. BST will not provide this element in those locations where the property owner provides their own wiring to the end-user's premises or where the property owner will not allow BST to place its facilities to the end user.

NTW is defined as the wire from the last LFACS inventoried terminal that serves the customer to the NID. The BICS organization may be contacted if their assistance is required in deciding how to provision the UNTW.

15.2 Process

Provisioning UNTW is a two-part process.

Part 1: The Initial Request and Site Visit.

1. The CLEC completes Part I of the Service Inquiry form (See Appendix D -- Unbundled Network Terminating Wire -- SI for an example) and then sends the form to their Account Executive (AE).
2. The AE forwards the SI to the appropriate I&M manager electronically.
3. The I&M manager contacts the CLEC to arrange a site visit.
4. The CLEC and I&M meet at the site to determine feasibility and determine the interconnection plan.
5. I&M fills out Part II on the SI and forwards the SI to OSPE electronically.
6. OSPE verifies terminal addresses supplied by I&M and determines RSAG valid address to use for UNTW.
7. OSPE forwards SI to AFIG and to LCSC electronically.
8. AFIG posts new terminal data in LFACS.

9. LCSC issues Service Order for site visit and/or site setup.
10. LCSC forwards SI to AE.
11. AE notifies CLEC that site is ready for ordering UNTW.

Part 2: The CLEC Orders UNTW and I&M Installs.

12. CLEC issues LSR asking for specific UNTW
13. I&M dispatches and installs access terminal and wires UNTW to the access terminal.
14. CLEC connects their facilities to the access terminal.

15.3 Detail Flow for OSPE

OSPE will receive the SI from I&M and will need to perform several steps to get sufficient information in LFACS to allow the CLEC to order UNTW. The following is a detailed description of what is required to input the correct data on the SI. Please refer to the following diagram, which depicts a typical "garden terminal" architecture and the Service Inquiry form found in Appendix D. The wiring closet architecture will have the same configuration.

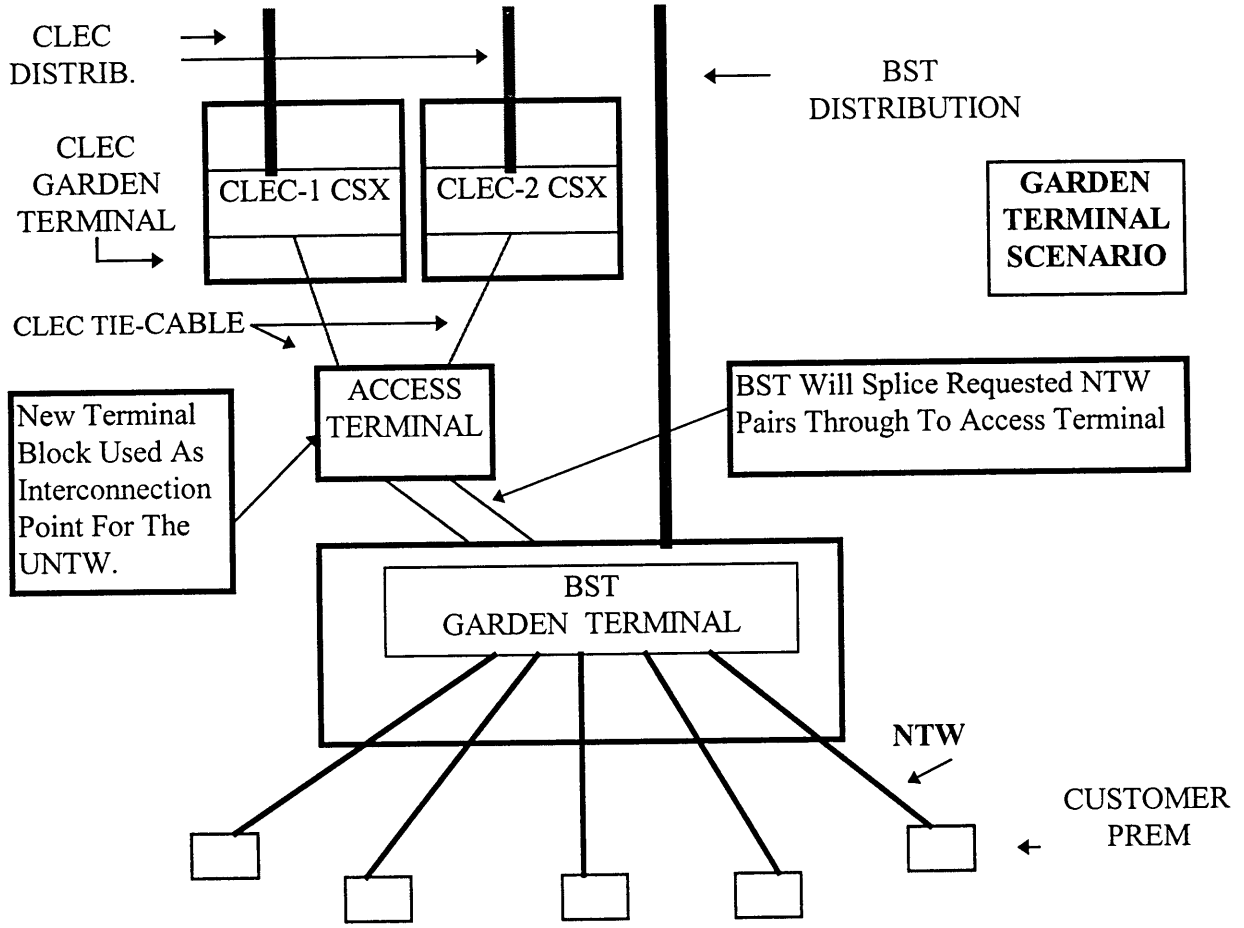


Figure 1 -- UNTW Terminal Configuration

15.4 The CLEC will fill out Part I of the SI. This section includes general contact information and the name and address of the apartment or multi-tenant building and the wire center CLLI of the central office that serves the complex. I&M will use this information to identify the complex and arrange a meeting where the CLEC is present with an I&M supervisor. This meeting will determine the type of wire used in the complex for NTW and the number of pairs available. The meeting will also determine where the new access terminals will be placed. These new access terminals will be the points of interface with the CLEC.

15.5 The I&M supervisor will complete Part II of the SI. I&M inputs data in the section titled "PART II I&M Output to OSPE." The type and number of wires used for the NTW is listed and in the remarks section, I&M will indicate the number of UNTW that the CLEC requests for each apartment.

15.6 The LFACS section consists of two distinct parts. The first is located on the second page of the SI in the LFACS Section. A new cross-box needs to be created in LFACS. This cross-box does not exist in the field and is only necessary to get LFACS to assign a cable facility to the UNTW circuits. This cross-box will not have an IN: COUNT but it will have an OUT COUNT and this OUT COUNT will always be named NTW1. The number of new access terminals that are required in the complex will determine the range. For Example: If there are 10 garden terminals and I&M is required to install 10 new access terminals the OUT COUNT will be NTW1, 1-10. Each access terminal will have a one pair reading using one pair of this out count. The first access terminal will have the reading of NTW1, 1. The second access terminal will have the reading of NTW1, 2 and so on.

The address of the cross-box is partially preprinted on the form and always begins with "FICTITIOUS XBOX-NTW ONLY-." This name will then be followed with the ACNA identifier for the CLEC and a numeric. An example is "FICTITIOUS XBOX-NTW ONLY-AXX1" where the ACNA for the CLEC is AXX and this is the first apartment complex being set up for UNTW for CLEC AXX in that wire center. Each additional apartment complex in that wire center will increment the numeric by one. OSPE will need to fill in the OUT COUNT and the taper code for this new terminal. The taper code should be the same taper code used in the complex.

15.7 The second part of the LFACS section is on page three of the SI and there may be multiple copies of this page. Each page has space for three new access terminals. I&M will fill in as many of these sheets as needed to complete the entire complex.

15.8 I&M will fill out the existing terminal address and list the apartment addresses served by that terminal. OSPE will verify the existing terminal address by checking in LFACS or LEAD to verify the exact terminal address. Make changes to the form as necessary to make the existing terminal address agree with our records in LFACS.

OSPE will develop the new terminal address from the existing terminal address using the following process.

- Duplicate the existing terminal address and then add on the end a dash and the ACNA identifier for the CLEC (which is located on the first sheet of the SI).
- Add a numeric after the ACNA identifier (should another access terminal be necessary for this CLEC, the numeric could be incremented by one to develop another new terminal address for the second access terminal).
- Add another dash and then put "dist ntw only".

An example would be:

Existing terminal address: **ls bldg 1000 oak park cir ne**

New terminal Address: **ls bldg 1000 oak park cir ne-axx1-dist ntw only**

Where the ACNA identifier for this CLEC is axx.

15.9 OSPE must also create a RSAG valid address to use for ordering the UNTW. OSPE will use the telephone number served by the existing terminal that is supplied by I&M to look up a service address served from that terminal. On the Service Address line put the address associated with that telephone number as found in LFACS or LEAD. To make this service address unique the LOC FL: field will be populated with the ACNA for the CLEC and "NTW1." For example: AXXNTW1, where AXX is the ACNA identifier from the first sheet of the SI and the "1" stands for the first access terminal at that location for that CLEC. Should a second access terminal be required for this CLEC, this LOC FL: indicator can be incremented by one to make a new unique service address.

15.10 OSPE must populate the taper code field with the taper code used for the existing garden terminal and the community field with the community found for the telephone number that was used to look up the service address. The other fields on the form are pre-populated on the form and never vary.

15.11 OSPE will fill out Part II OSPE Contact Information and then forward copies of the entire SI to the AFIG and to the LCSC.

15.12 The AFIG will post the terminals to the LFACS database and at the same time the LCSC will issue the service order billing the CLEC for the site visit and/or site setup. The LCSC will then notify the AE that the SI is complete and the site is ready for UNTW orders. The AE will then notify the CLEC that the site is ready for UNTW orders.

15.13 After being notified by the AE that the site has been set up for ordering, the CLEC will issue an LSR for UNTW. The LCSC will issue the service order for UNTW and that order will flow to I&M for installation of the access terminals and UNTW.

15.14 Maintenance and Repair

The CLEC is responsible for testing and pre-screening any trouble conditions to make sure the trouble is with UNTW before calling BellSouth. Upon isolating the trouble to the UNTW, the CLEC will notify the Unbundled Network Element (UNE) Center. The CLEC must provide the following information to the UNE Center when reporting a trouble:

- Circuit ID of the Access Terminal in which the trouble is reported
- Address of the end user to which the UNTW is connected
- Description of the trouble

16 Collocation

16.1 The collocation process is covered in RL: 97-04-033BT. This section will briefly describe the impact that Unbundled Network Elements has had on the collocation process.

16.2 Unbundling the network has impacted the collocation process by requiring that the DS0 tie cables that are placed from the CLEC collocation space to the BST frame must now be inventoried in LFACS. Previously, these cables were inventoried and administered through TIRKS. In order to allow non-design service orders to flow through, the facilities must now be inventoried in LFACS. (See Figure 3)

16.3 OSPE will now be involved in the provisioning of what used to be called T0TIE cables. CCM will engineer the facilities and pass information to OSPE. CCM will forward to OSPE a copy of the form **"Collocation Tie Cable Input Form for LFACS, LMOS and COSMOS."** See Appendix E for an example. This form will be partially filled out by CCM. OSPE will need to complete the following sections and **forward within 5 business** days, the form to **COSMOS, LFACS and CCM** (Fax a copy to the COSMOS administrator shown in Section 12.6).

NOTE: It is very important to handle these forms in a timely manner (within 5 business days), because the tie facilities must be in place before the CLEC can order service to their collocation area. If the tie cables have not been inventoried in LFACS, the orders will PF and cause unnecessary confusion and delay in provisioning the CLEC's service.

OSPE must supply:

"OSPE Originator" Section:

Name:	OSP Engineer name
Tel No.:	OSP Engineer telephone number
FAX No.:	OSP Engineer FAX Number
FACS WC CODE:	Input the LFACS wire center code
NPA/NNX:	Input the NPA/NNX for the wire center

COSMOS WC: Input the COSMOS identifier for the wire center

"Collocation Tie Cable - Metallic" Section:

"Cable Name and Range:" OSP engineer will place a cable name and range for the number of pairs terminated as shown on this line by CCM. See 16.4 below on how to name and number. **It is OSPE's responsibility to make sure that these cable names and counts do not duplicate existing facilities.** OSPE will need to check LFACS to check cable names and ranges.

"RSAG/LFACS FACILITY ADDRESS (FLEX):" Input the address of the Central Office

"FLR:" Input the CLEC's CCNA identifier with a numeric without the P or V prefix as shown in 16.4. **NOTE: This field will uniquely identify the CLEC's terminal from all other CLECs. We use the cable name for that particular CLEC in this field. This is not the actual floor where the CLEC is located.**

"Terminal:" Input the central office address followed by the FLR designation described above.

"Terminal Count:" Input the cable name and range that will serve the terminal. This is the cable name supplied by OSPE and the range supplied by CCM.

"CNST:" This is the constraint filed and is populated with the first four characters of the cable name.

"LMU:" The tie cables must have a loop makeup loaded into LFACS. We will always be using the parameters pre-printed on the form (.1 kft of Non-Loaded 24 gauge cable.)

16.4 OSPE will name the cable and designate the range for each line submitted by CCM. **(Check in LFACS or LEAD for existing cables in the wire center.)** The form will come from CCM with the total number of pairs shown in the cable name and range field. OSPE must convert this total number of pairs to a cable name and range. The "Frame & Vertical" and the "Permanent Remark" fields will be filled in by CCM.

The cables are named with a five digit code starting with V or P (V for virtual, P for physical), three alphas (the CCNA of the collocator), and a one digit number. Examples are VAVS1 and PATX4. The cable can grow to 10,000 pairs for each collocator before changing names (The only change would be the digit at the end.).

The terminal's address is the central office's address. The FLR is the collocator's CCNA followed by a single digit. Customers ordering service to a collocation arrangement using cable and pair are required to give the address, cable name, and pair(s) to be used for that order.

When adding tie cables to existing arrangements, continue using the same cable name and expand the cable range until the maximum range is reached. If additional pairs are required, use the next available cable name (increment the numeric by one) and start over with pair one. The terminal address will remain the same for all cable ranges for that particular CLEC.

17 SWITCHBACK/SWITCHOVER

17.1 General

Provisioning processes for unbundled loops have traditionally focused on the transfer of a loop from BST to a CLEC. The reverse process is also possible but is much more difficult. In order to reuse the existing loop when a customer decides to change service providers, the existing loop facilities must be identified is such a way that LFACS can identify them and reuse them.

In order to understand the processes needed for Switchback/Switchover it is helpful to understand the process of giving up a loop to a CLEC.

17.2 BST To CLEC Process

When an end customer decides to change local service providers and the CLEC chosen is one that is purchasing loops from BST to provide service, there are generally three service orders issued.

1. A service order is issued to disconnect the existing service provided by BST
2. A service order is issued to establish the new unbundled loop for the CLEC
3. A service order is issued to Remote Call Forward the old BST telephone number to the new CLEC telephone number in areas using Interim Local Number Portability (INP). (In areas with Local Number Portability (LNP) the number is ported out of the switch to the CLEC.)

These orders are CRO'ed together to insure that they are worked together. The order establishing the unbundled loop creates a new circuit ID to identify the unbundled loop. All unbundled loops will have a circuit identifier with either a TY or LY as the first two modifiers after the initial number. The TY indicates a non-designed circuit and the LY indicates a designed circuit.

After all three orders are worked the only identifier for the unbundled loop is the circuit ID. The telephone number is no longer associated with the loop. Should the CLEC report a trouble on the loop or wish to make changes to the loop they must provide the circuit ID. The end customer knows his telephone number (either our old number or the new CLEC number) but does not know the circuit ID.

17.3 SWITCHBACK/SWITCHOVER FLOW

If a customer currently served by a CLEC decides to change to another CLEC or decides to use BST as their local service provider, BST wants to reuse the existing facilities to avoid a dispatch out.

The customer will identify himself as wanting to change LSP (Local Service Provider) and the service representative will make note of this fact in the remarks section of the service order as shown below.

"LSP change, reuse of facilities from former provider XXX."

Where XXX is the ACNA (access carrier name) for the existing LSP.

In certain situations it may not be possible for the service representative to identify the existing facilities. Changes have been made to flow any AO status service orders that have the LSP note on them to the TRAPPER Center. The TRAPPER Center will perform the research necessary to reuse the loop. Should any orders be received by the SAC center that have the LSP changing note, the SAC will refer those orders to the TRAPPER Center for resolution.

17.4 The TRAPPER Center contact names and numbers are listed in Appendix K

18 Unbundled Extended Loop (UEL)

18.1 UEL is an Unbundled Network Element (UNE) **combination** that consists of an unbundled DS1 loop and Unbundled Interoffice Transport (UIT) at the DS1 level. This product will not be channelized or multiplexed.

18.2 UEL is only applicable to the conversion of existing Megalink or Access DS1's to UNE rates. The circuit number for the existing service will be changed to a UNE circuit number and the existing facilities will be reused. The loop facility will use the unbundled DS1 class of service of USL and the provisioning USOC of USLXX.

18.3 UEL Loop service must be CRO'd with the service order to disconnect the end users Megalink from BellSouth. When the end user requests UEL, the facilities from the disconnect order must be used on the UEL Loop service order. Reuse of facilities FID's RRSO, RUF, CRO, etc. are required on the service order.

18.4 OSPE will see this order when it drops to DPRO. DPRO will need to send a circuit design to the CPG for this circuit. Since this is an existing circuit and no changes are proposed to the circuit an existing design should be available.

18.5 The following is the table of codes that will be used on UEL service orders.

CLEC Interface at Collocation	NC	NCI at CLEC	SECNCI at End User
Collocation DS1 Interface T1TIE CFA must be provided	HC - - AMI - SF	04QB9.11	04DU9.BN AMI - SF
Collocation DS1 Interface T1TIE CFA must be provided	HCD – AMI – ESF	04QB9.11	04DU9.1KN AMI - ESF
Collocation DS1 Interface T1TIE CFA must be provided	HCZ – B8ZS - SF	04QB9.11	04DU9.DN B8ZS - SF
Collocation DS1 Interface T1TIE CFA must be provided	HCE – B8ZS - ESF	04QB9.11	04DU9.1SN B8ZS - ESF

Table 3 – UEL Loop Matrix

19 Responsibilities

19.1 The following table lists UNE functions and the recommended group to handle the functions.

LCM Responsibilities	SAC Responsibilities
Collocation SI	SO Fallout UNE Alternatives
Collocation Tie Cable Input Form	UDL-2W/EE, UDL-4W/EE and UCL SI
CLEC F1 Cable Input Form	UNTW SI
USLC SI	USL SI (Setup cross box for USL)
Dark Fiber SI	Switchback/Switchover

Coordinate Special Construction Estimate*	Coordinate Special Construction Estimate*
*The group receiving the Service Order or the Service Inquiry will coordinate with the contract engineers/BST engineers to produce the SC estimate and return it to the proper group (LCSC or Account team/CRSG.)	

Table 4 -- OSPE Responsibility Table

20 Subject Matter Expert (SME) and Documentation List

20.1 The following people can be consulted on methods and procedures for Unbundled Elements concerning their department.

Discipline	SME	Telephone Number
OSPE Unbundled Loop	Michael K. Zitzmann	504-624-9241
OSPE Collocation	Steve Sanders	704-536-0613
OSPE Dark Fiber	Steve Sanders	704-536-0613
OSPE Billing Methods	Rick Vinson	205-977-2615
BICS	Tom Larsen	404-927-7348
CCM	Bill McAllister	205-977-2710
CSCM	Tom Weber	205-321-8113
CPG - UNEs	Dianne Martin	615-214-4401
CPG – DS1s	Douglas Davis	205-977-3017
CO Operations	Dan Stinson	404-927-1289
UNE Center	James Ennis	205-714-0112
AFIG	Shirley Abts	205-977-3250
AFIG	Jayne Sullivan	954-747-2330
I&M, SSI&M	Gerald Potts	404-529-7567
TR73600	Eric O. Brockman	205-985-6085

20.2 List of Documentation on Unbundled Loops:

OSPE M&P, (DRAFT) Issue G, November 23, 1999 (This Document)	Outside Plant Methods and Procedures for Provisioning Unbundled Loop Elements (Michael Zitzmann) Can be found on BELS or MKZ Web Page
JA- OSPESAC-001BT SAC UNE JOB AID Issue 4, November 9, 1999	Job Aid to be used by the SAC to Provision UNEs. (Michael Zitzmann) Can be found on BELS or MKZ Web Page
RL: 97-04-033BT July 7, 1997	OSPE Guidelines for Virtual and Physical Collocation (Steve Sanders)
RL: 97-06-003BT March, 1998	OSPE Guidelines for Unbundled Dark Fiber (Steve Sanders)
RL: 97-08-016BT June 15, 1998	OSPE Reimbursement Billing (Rick Vinson)

RL: 99-04-018BT April 12, 1999	Changes to the billing overhead percentage, loaded labor rates for Telco Labor and Engineering and updated SN454. (Rick Vinson)
RL: 98-11-012BT	Unbundled Loop Strategies Update (John Jackson)
841-600-109BT Issue A December, 1998	CPG Methods and Procedures For Unbundled Loops And Ports (Dianne Martin)
841-600-119BT Draft Issue A March 1997)	Circuit Provisioning Methods And Procedures For Unbundled Hi-Capacity Services (ADSL/HDSL/DS1/UIT/UC/Dark Fiber) (Douglas Davis)
841-600-120BT Draft Issue C, November 1998	Circuit Provisioning Methods And Procedures For Unbundled Digital Loop And Sub-Loop Concentration (Douglas Davis)
841-600-075BT Draft Issue C, March 1997	Circuit Provisioning Methods And Procedures For Virtual And Physical Collocation (Douglas Davis)
CCM 97-003, Issue 7 November 15, 1998	CCM - Unbundled Loop Concentration And Unbundled Sub-Loop Concentration Methods and Procedures (Bill McAllister)
CCM 97-002, Issue 10 July 27, 1999	CCM - Collocation (Virtual and Physical) Methods and Procedures (Bill McAllister)
CCM 97-014, Issue 7 November 16, 1998	CCM - Unbundled Network Elements (UNE's) (Bill McAllister)
CCM 97-015, Issue 4 May 17, 1998	Unbundled Dark Fiber (Bill McAllister)
Issue 1, April 29, 1997	Capacity Management Collocation Guidelines (CSCM, CCM, PCM Equipment Engineering Functions (Tom Weber)
660-230-338 Draft Issue May 22, 1997	Unbundled Local Loops (Central Office) (Dan Stinson)
660-230-337BT Draft Issue September 8, 1997	Unbundled Local Switching (Central Office) (Dan Stinson)
660-230-336BT Draft Issue September 8, 1997	Physical Expanded Interconnect Service (PEIS) (Dan Stinson)
SSI&M/I&M M&P Issue G, July 2, 1999	Network SSI&M / I&M Methods and Procedures For Provisioning Unbundled Network Elements (Gerald Potts)
TR-73600, Issue B July, 1998	Unbundled Local Loop - Technical Specifications (Eric O. Brockman)

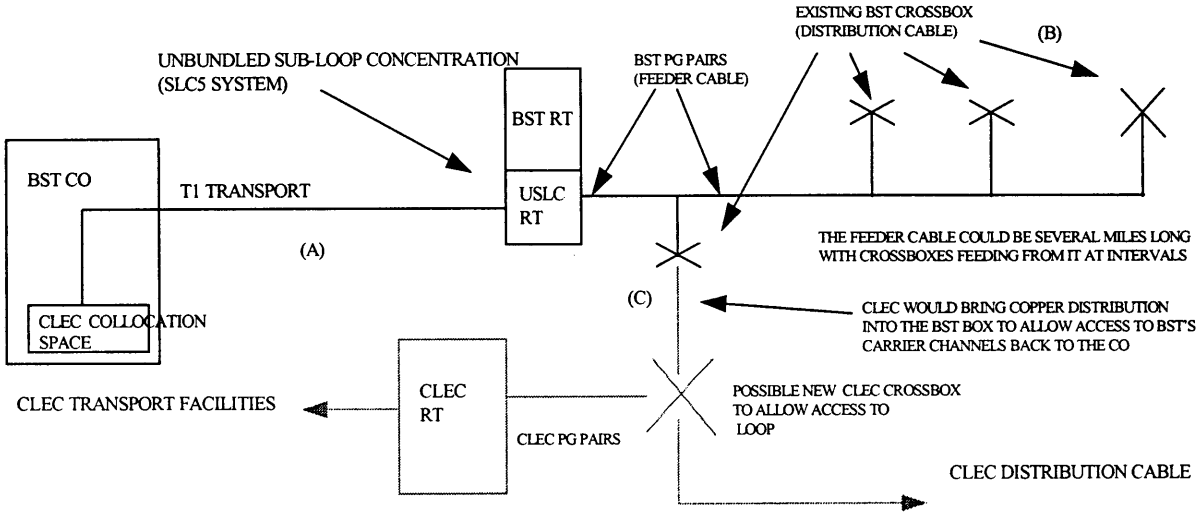
Table 5 -- List of Documentation

21 Glossary

ACRONYM	DEFINITION
ADSL	Asynchronous Digital Subscriber Line
AFIG	Address and Facility Inventory Group
BICS	Building Industry Consulting Service
BST	BellSouth Telecommunications, Inc.
CCM	Circuit Capacity Manager

CCNA	Customer Carrier Name Abbreviation
CDP	Clear Defective pair
CLEC	Competitive Exchange Carrier
COSMOS	Computer System for Mainframe Operations System
COT	Central Office Terminal
CPG	Circuit Provisioning Group
CRSG	Complex Resale Support Group
CSA	Carrier Serving Area
DAML	Digital Added Main Line
DCBA	Dual Channel Bank Assembly
DCS	Digital Cross-connect System
DDAS	Digital Data Access Service
DLE	Digital Loop Electronics
DLR	Design Layout Record
EI	Engineering Information
EWO	Engineering Work Order
FACS	Facility Assignment and Control System
HAL	Hands-Off Assignment Logic
HDSL	High Bit Rate Digital Subscriber Line
INP	Interim (Local) Number Portability
ISDN	Integrated Services Digital Network
LAC	Loop Assignment Center
LCM	Loop Capacity Manager
LCSC	Local Carrier Service Center
LEC	Local Exchange Carrier
LFACS	Loop Facilities Assignment and Control System
LMOS	Loop Maintenance Operation System
LMU	Loop Make-up
LNP	Local Number Portability
LSP	Local Service Provider
LST	Line and Station Transfer
LTS	Line Terminal Status
MCU	Metallic Channel Unit
MDF	Main Distribution Frame
MDU	Multi-Dwelling Unit
MLT	Mechanized Loop Test
MTU	Multi-Tenants Units
NI	Network Interface
NID	Network Interface Device
NTW	Network Terminating Wire
ONU	Optical Network Unit
OSPE	Outside Plant Engineering
RELOG	Referred to Engineering Log
RT	Remote Terminal
RTRG	Real Time Resolution Group
SI	Service Inquiry

SO	Service Order
SOC	Service Order Correction
SWC	Serving Wire Center
TIRKS	Trunk Integrated Records Keeping System
UCL	Unbundled Copper Loop
UCS	Unbundled Circuit Switching
UDF	Unbundled Dark Fiber
UDL	Unbundled Digital Loop
UEL	Unbundled Extended Loop
ULC	Unbundled Loop Concentration
UNE	Unbundled Network Element
UNTW	Unbundled Network Terminating Wire
UPS	Unbundled Packet Switching
USL	Unbundled Sub-Loop
USLC	Unbundled Sub-Loop Concentration
USLF	Unbundled Sub-Loop Feeder
USOC	Universal Service Order Code
UVL	Unbundled Voice Loop



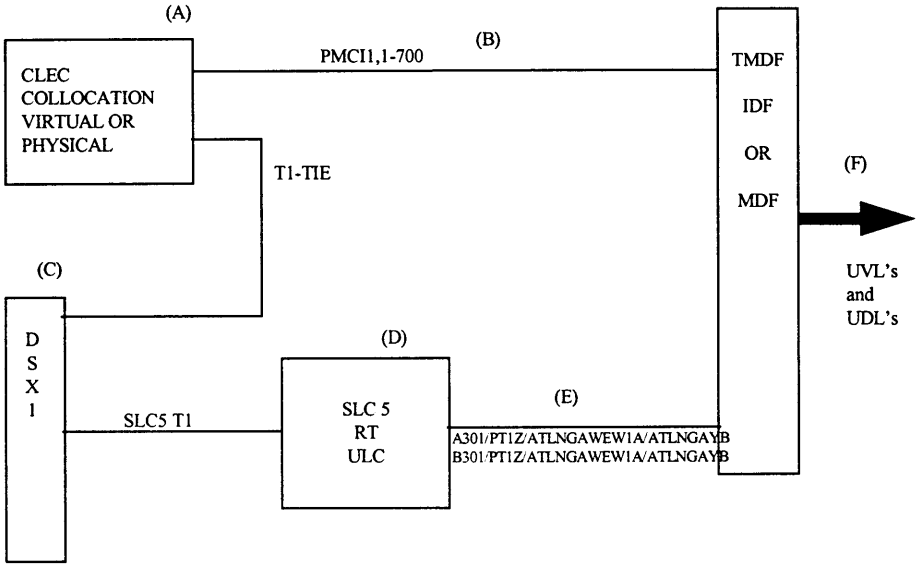
UNBUNDLED SUB-LOOP COMPONENTS

(A) USLC - Unbundled Sub-Loop Concentration. This UNE consists of a SLC Series 5 carrier system. It is dedicated to the CLEC. The CLEC has assignment control of the PG pairs associated with the USLC. The CLEC must provide its own F2 pairs into our cross box

(B) USL - Unbundled Sub Loop. This UNE consists of BST's distribution facility from the BST cross box to the customer premises NID. The CLEC must provide its own F1 facilities into our cross box.

(C) The point of interface/hand-off will be the BST crossbox. The CLEC will provide a cable that will be terminated in the BST crossbox. This cable will allow the CLEC to use a BST USLC or USL.

Figure 2 -- Example of Unbundled Sub-Loop Elements



(A) Collocation space for the CLEC, can be virtual or physical.

(B) Collocation tie cable for DS0 services. This cable will be inventoried in LFACS

(C) DSX-1 pannel where T1-Tie cables are terminated. Terminate the SLC 5 T1 pairs here.

(D) Unbundled Loop Concentration system, SLC5. This is a SLC5 RT channel bank.

(E) Derived cable associated with ULC. This cable will be administered in TIRKS.

(F) Unbundled Loops

Figure 3 -- Unbundled Loop Concentration and DS0 Collocation Tie Cables

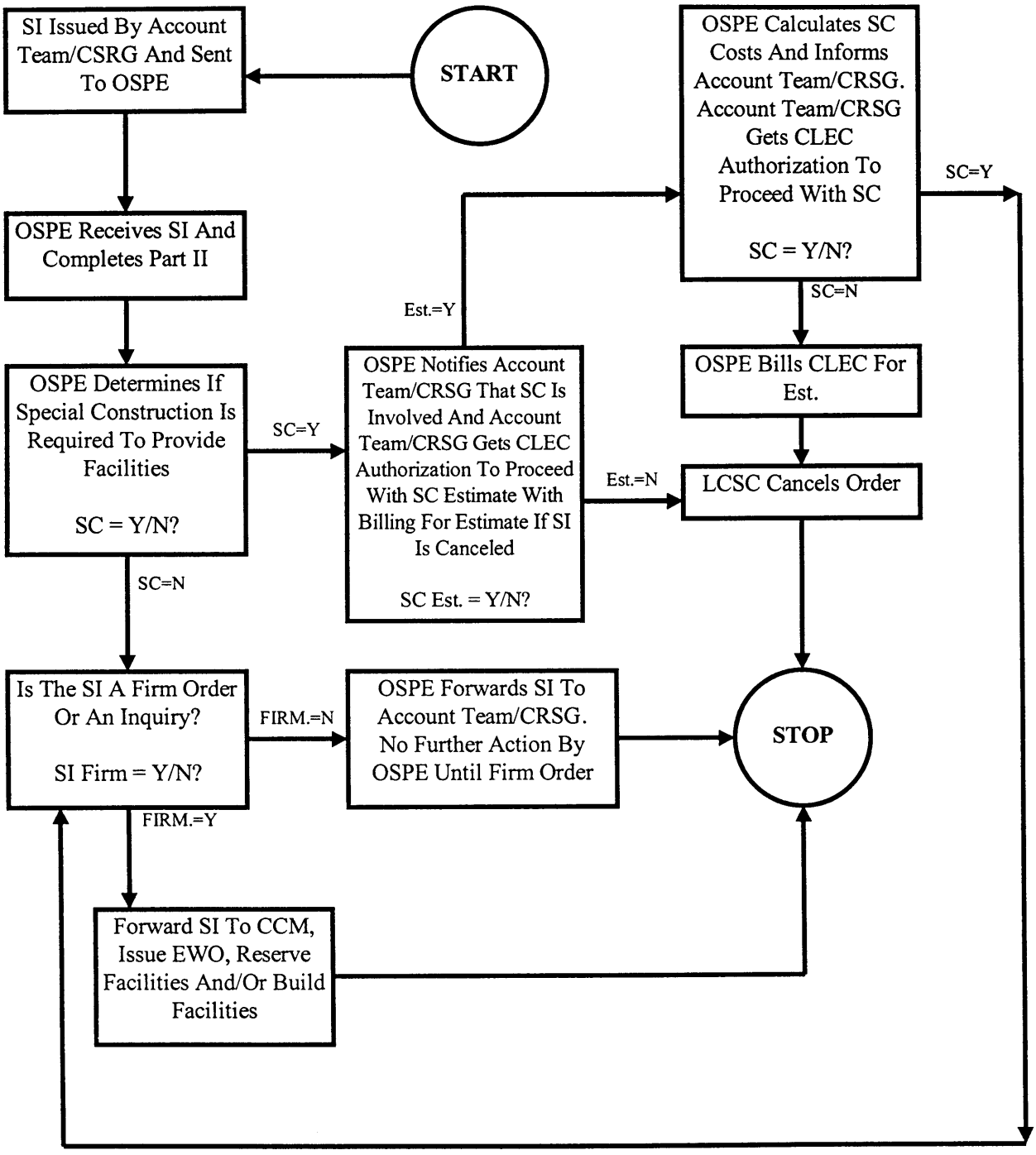


Figure 4 -- USLC - OSPE Flowchart for Processing SI

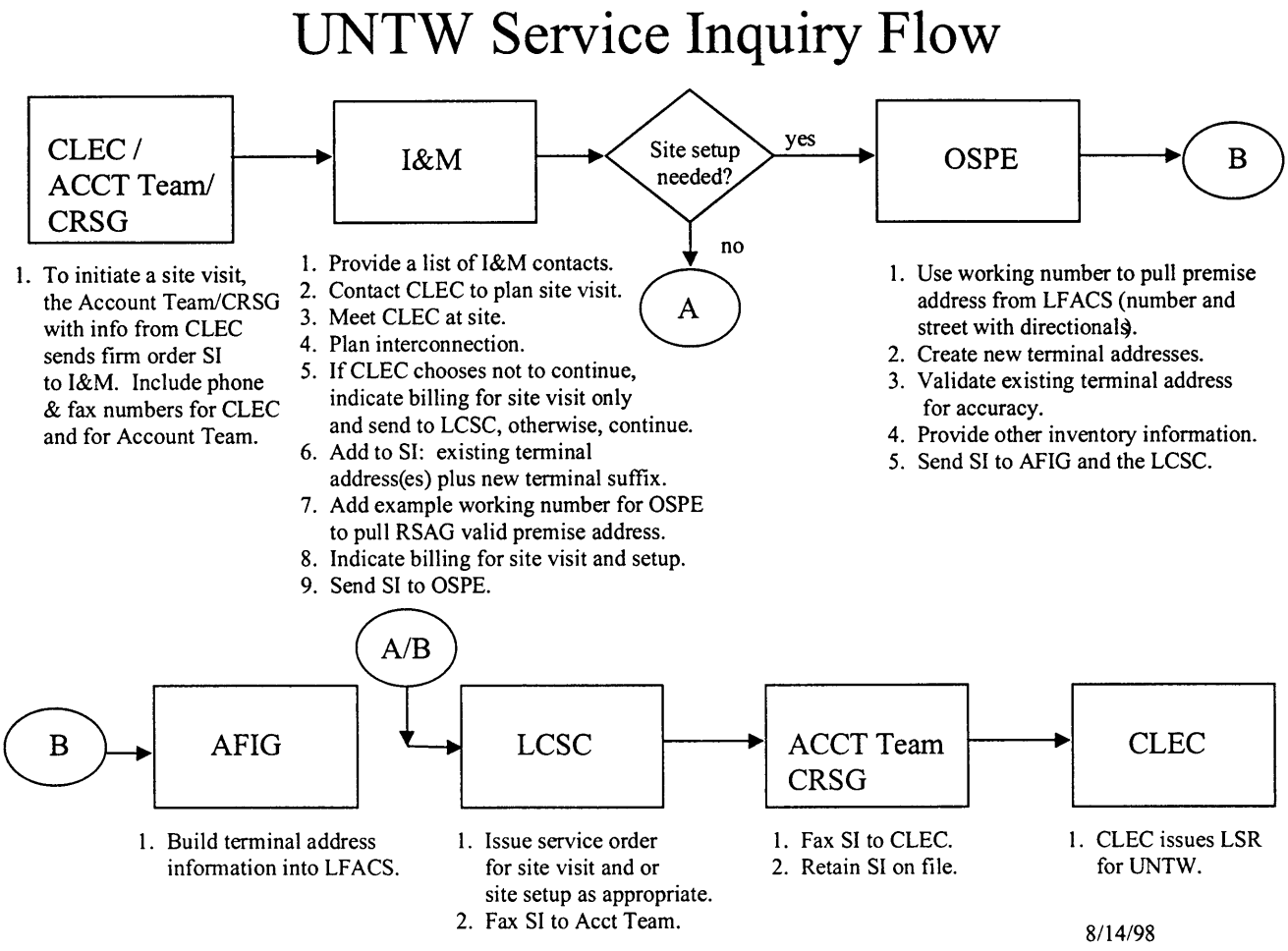


Figure 5 -- UNTW Service Inquiry Flow

USOC TABLE

UNE LOOPS	SERVICE TYPE	NC CODE	CLS	PROV. USOC	PLUG TYPE
UVL-2W/SL1	POTS-1	TY	UEANL	UEAL2	POTS(ES,ESX)
UVL-2W/SL2(Loop Start LPS FID)	POTS-1	LY	UEA	UEAL2	POTS(ES,ESX)
UVL-2W/SL2(Ground Start GST FID))	SS-1L	LY	UEA	UEAL2	SPOTS(ET)
UVL-2W/(Reverse Battery)	SS-2L	LY	UEA	UEAR2	D
UVL-4W	SS-6	LY	UEA	UEAL4	D
UDL-4W/D0 (2.4kbs)	SS-8	LY	UDL	UDL2X	D
UDL-4W/D0 (4.8kbs)	SS-8	LY	UDL	UDL4X	D
UDL-4W/D0 (9.6kbs)	SS-8	LY	UDL	UDL9X	D
UDL-4W/D0 (19.2kbs)	SS-8	LY	UDL	UDL19	D
UDL-4W/D0 (56kbs)	SS-9	LY	UDL	UDL56	D
UDL-4W/D0 (64kbs)	SS-9	LY	UDL	UDL64	D
UDL-2W/I (Basic Rate ISDN)	ISDNB1	LY	UDN	U1L2X	BRITE
UDL-2W/EE (ADSL Type)	SS-12	LX	UAL	UAL2X	(N/A)
UDL-2W/EE (HDSL Type)	SS-12	LX	UHL	UHL2X	(N/A)
UDL-4W/EE (HDSL Type)	SS-12	LX	UHL	UHL4X	(N/A)
UDL-4W/DI (DS1&Primary Rate ISDN)	SS-11	HC	USL	USLXX	(Note 1)
UCL-2W	SS-12	LY	UCL	UCLPB	(N/A)
UEL (DS1 Conversion)	SS-11	HC	USL	USLXX	(Note 1)
SUB-LOOPS					
USL-2W	POTS-1	TX	UEANL	USBN2	(N/A)
USL-4W	POTS-1	TX	UEANL	USBN4	(N/A)
USLR-2W (Tennessee Only)	POTS-1	TX	UEANL	USBR2	(N/A)
USLR-4W (Tennessee Only)	POTS-1	TX	UEANL	USBR4	(N/A)
UNTW					
UNTW-2W (Provisioning per pair)	POTS1	TX	UENTW	UENPP	(N/A)
Access Terminal - 1st 25pr		-	UENTW	UEN1T	(N/A)
Access Terminal - 2nd 25pr		-	UENTW	UEN2T	(N/A)
Site visit Survey (Per MDU)		-	UENTW	UENVS	(N/A)
Second Visit (per MDU/MTU)		-	UENTW	UENSV	(N/A)
Pair Activation, per pair--billing only		-	UENTW	UENPA	(N/A)
Site Visit Setup Per Terminal		-	UENTW	UENSS	(N/A)
USLC					
USLC System		HC	ULR	ULR	
Feature Activation					
2W-USLC Loop Start (LPS FID)		LY	-	ULCC2	POTS(ES, ESX)
2W-USLC Ground Start(GST FID)		LY	-	ULCC2	SPOTS(ET)
4W-USLC		LY	-	ULCC4	D
2W-USLC Reverse Battery		LY	-	ULCCR	D
2W-USLC ISDN		LY	-	ULCC1	BRITE
4W-USLC 56kbs		LY	-	ULCC5	D
4W-USLC 64kbs		LY	-	ULCC6	D
4W-USLC Test Circuit		LY	-	ULC	D
Dark Fiber					
UDF	-	LX	UDF	UDF	(N/A)
MISC					
Loop Make-up on SL1	-	-	-	UEANM	(N/A)

(N/A) = Not Applicable

NOTE 1: The only DLC systems capable of supporting a DS1 service are the Litespan 2000 and the DISC*S FITL. Consult the M&Ps for those systems on how to provision DS1.

Table 6 -- List of USOCS and PLUG Types for Unbundled Loops

Appendix A -- CSA Design Criteria

Use these criteria to design UDL-2W/EE or UDL-4W/EE Unbundled Loops. (Supports ADSL or HDSL)

OSPE designs distribution facilities served by DLE under Carrier Serving Area (CSA) design criteria. The current CSA design criteria are:

(a) Non-loaded cable only

(b) The amount of 26 gauge cable (used alone or in combination with another gauge cable) may not exceed a total length of 9 kft including bridged tap.

(c) For single or multi-gauge cables containing only 19, 22 or 24 gauge cable, the total length including bridged tap should not exceed 12 kft.

(d) For multi-gauge cable it is preferred that the make-up be limited to two gauges (excluding short sections used for stubbing or fusing).

(e) Total bridged tap length may not exceed 2.5 kft. No single tap may exceed 2.0 kft.

(f) Total length including bridged tap of multi-gauge cable containing 26 gauge cable should not exceed:

$$12 - \{(3(L26))/(9-LBTAP)\} \text{ kft}$$

where L26 is the total length of 26 gauge cable in the loop (excluding any 26 gauge bridged tap) and LBTAP is the total length of bridged taps in the loop. All lengths are in kilofeet (kft).

Appendix B -- Unbundled Loops Matrix

This matrix was extracted from 841-600-109BT and is used by CPG to determine correct codes. OSPE may find it useful in reading the codes on the service orders. The OSPE facilities will be using the line marked "NONE" under the CFA column.

2W UVL (Loop Start) SL2

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	02QC3.OOD	02LS2	UEA	UEAL2
T1 @ POP	LY--	04DS? *	02LS2	UEA	UEAL2
T1 @ COLLO	LY--	04QB? *	02LS2	UEA	UEAL2
NONE	LY--	02L02	02LS2	UEA	UEAL2**

** Uses ES plug in OSPE carrier systems with LPS FID

2W UVL (Ground Start)

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	02QC3.OOB	02GS2	UEA	UEAL2
T1 @ POP	LY--	04D?*	02GS2	UEA	UEAL2
T1 @ COLLO	LY--	04QB? *	02GS2	UEA	UEAL2
NONE	LY--	02GO2	02GS2	UEA	UEAL2**

** Uses ET plug in OSPE carrier systems with GST FID

4W UVL (LOOP Start)

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	04QC2.OOD	04LS2	UEA	UEAL4
T1 @ POP	LY--	04DS?*	04LS2	UEA	UEAL4
T1 @ COL	LY--	04QB? *	04LS2	UEA	UEAL4
NONE	LY--	04L02	04LS2	UEA	UEAL4

* CHECK WHEN VERIFYING CFA

4W UVL (Ground Start)

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	04QC2.OOB	04GS2	UEA	UEAL4
T1 @ POP	LY--	04DS? *	04GS2	UEA	UEAL4
T1 @ COL	LY--	04QB? *	04GS2	UEA	UEAL4
NONE	LY--	04GO2	04GS2	UEA	UEAL4

2W UVL (Reverse Battery)

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	02QC3.RVO	02RV2/T/	UEA	UEAR2
T1 @ POP	LY--	04DS?*	02RV2/T/	UEA	UEAR2
T1 @ COL	LY--	04QB? *	02RV2/T/	UEA	UEAR2
NONE	LY--	02RV2/O/	02RV2/T/	UEA	UEAR2

2W UDL ISDN (Basic Rate)

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	02QC5.OOS	02IS5	UDN	U1L2X
T1 @ POP	LY--	04DS? *	02IS5	UDN	U1L2X
T1 @ COL	LY--	04QB? *	02IS5	UDN	U1L2X
NONE	LY--	02IS5	02IS5	UDN	U1L2X

4W UDL - 56 KB

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	04QC5.OOP	04DU5/56	UDL	UDL56
T1 @ POP	LY--	04DS? *	04DU5/56	UDL	UDL56
T1 @ COL	LY--	04QB? *	04DU5/56	UDL	UDL56
NONE	LY--	04DU5/56	04DU5/56	UDL	UDL56

* CHECK WHEN VERIFYING CFA

4W UDL - 64 KB

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LY--	04QC5.OOQ	04DU5/64	UDL	UDL64
T1 @ POP	LY--	04DS? *	04DU5/64	UDL	UDL64
T1 @ COL	LY--	04QB? *	04DU5/64	UDL	UDL64
NONE	LY--	04DU5/64	04DU5/64	UDL	UDL64

* CHECK WHEN VERIFYING CFA

Unbundled Loop and Sub Loop Concentration

Terminating USOC (PG System and Pair Floated behind this USOC) These USOCs will be used instead of the Provisioning USOC listed in this matrix.

UNBUNDLED ULC/USLC 2W LOOP ---------- ULLC2

UNBUNDLED ULC/USLC 4W LOOP ----------ULLC4

UNBUNDLED ULC/USLC 56 KB LOOP-------ULLC5

UNBUNDLED ULC/USLC ISDN LOOP ------- ULLCI

UNBUNDLED ULC/USLC 64 KB LOOP ------ ULLC6

These USOCS will also be used for Feature Activation

2W ADSL

CFA	NC	NCI - OLEC	SEC NCI	CLS	PROV USOC
T0TIE	LX--	02QB9.OOA	02DU9.OOA	UAL	UAL2X

2W HDSL					
T0TIE	**LX--**	**02QB9.OOH**	**02DU9.00H**	**UHL**	**UHL2X**
4W HDSL					
T0TIE	**LX--**	**04QB9.OOH**	**04DU9.00H**	**UHL**	**UHL4X**
THE FOLLOWING WAS EXTRACTED FROM 841-600-119BT					
	NC	**NCI - OLEC**	**SEC NCI**	**CLS**	**PROV USOC**
DS1					
USE EXISTING USOCS, NC/NCI WITH A DIFFERENT CLASS OF SERVICE					
DS1	**HC--**	**04QB9.11**	**04DU9.+++**	**USL**	**USLXX**
DS3					
USE EXISTING USOCS, NC/NCI WITH A DIFFERENT CLASS OF SERVICE					
DS3	**HF--**	**04QB6.33**	**04DS6.44**	**UT3**	**UE3PX**
DARK FIBER					
UDF	**LX--**	**02QBF.LL**	**02FCF**	**UDF**	**UDF**

THE FOLLOWING WAS EXTRACTED FROM 841-600-120BT

NC	Modifier 1	Modifier 2	Definition
HC			Unbundled DS1
	K		DS1 Service per TR808, DLC Format Multiplexed
		A	TR808 Non-Concentrated AMI/SF
		B	TR808 Non-Concentrated B8ZS/SF
		C	TR808 Non-Concentrated B8ZS/ESF
		D	TR808 Concentrated 96 loops to 2 T1 lines AMI/SF
		E	TR808 Concentrated 96 loops to 2 T1 lines B8ZS/SF
		F	TR808 Concentrated 96 loops to 2 T1 lines B8ZS/ESF
HC			Unbundled DS1
	L		DS1 Service per TR303, DLC Format Multiplexed
		A	TR303 Concentrated or Non-Concentrated B8ZS/ESF

Table 2 - NC Codes for ULC and USLC

Service	NCI	Description
ULC / USLC POP or Cellular	04DS9.15	AMI - SF
	04DS9.1K	AMI - ESF
	04DS9.15B	B8ZS - SF
	04DS9.1S	B8ZS - ESF
ULC / USLC Collocation w T1TIE CFA	04QB9.11	No Line Code/Frame Format in Collocation DS1 NCI Code
Collocation w T3 CFA	04QB6.33	No Line Code/Frame Format
ULC / USLC W T3 CFA	04DS6.44	in all DS3 NCI Codes DS - POP / QB - Collocation
ULC / USLC Local Loop	04DU9.BN	AMI - SF
	04DU9.1KN	AMI - ESF
	04DU9.DN	B8ZS - SF
	04DU9.1SN	B8ZS - ESF

Table 3 - NCI Codes for ULC and USLC

USOC	TIRKS Term?	LFACS Assign?	Description
ULC	N/A	N/A	ULC Class of Service
ULR	N/A	N/A	USLC Class of Service
UCTFS	Yes	Yes	DS1 Interface Field System - Local Loop Provisioning USOC
PE1P1	Yes	No	Physical Collocation DS1 Provisioning USOC
CNC1X	Yes	No	Virtual Collocation DS1 Provisioning USOC
UCT8A	No	No	Billing USOC- TR008 System A - 96 channels
UCT8B	No	No	Billing USOC - TR008 System B - 96 channels
UTC3A	No	No	Billing USOC - TR303 System A - 96 channels
UTC3B	No	No	Billing USOC - TR303 System B - 96 channels
UCTCO	No	No	Billing USOC - DS1 Interface Central Office

Table 4 - USOCs for Unbundled Loop and Unbundled Sub-Loop Concentration Systems

USOC	TIRKS Term?	LFACS Assign?	Description
ULCC2	Yes	Yes - 2W	2-wire ULC/USLC Interface - Loop and Ground Start
ULCC4	Yes	Yes - 4W	4-wire ULC/USLC Interface - Loop and Ground Start
ULCCR	Yes	Yes - 2W	2-wire ULC/USLC Interface - Reverse Battery
ULCC1	Yes	Yes - 2W	2-wire ULC/USLC Interface - ISDN
ULCC3	Yes	Yes - 4W	4-wire ULC/USLC Interface - 2.4 Kbps
ULCC8	Yes	Yes - 4W	4-wire ULC/USLC Interface - 4.8 Kbps
ULCC9	Yes	Yes - 4W	4-wire ULC/USLC Interface - 9.6 Kbps
ULCC7	Yes	Yes - 4W	4-wire ULC/USLC Interface - 19.2 Kbps
ULCC5	Yes	Yes - 4W	4-wire ULC/USLC Interface - 56 Kbps
ULCC6	Yes	Yes - 4W	4-wire ULC/USLC Interface - 64 Kbps

Table 5 - USOCs for Circuits assigned to ULC/USLC (Feature Activation's)

USOC	TIRKS Term?	LFACS Assign?	Description
UEA	N/A	N/A	Unbundled Voice Loop Class of Service
UDN	N/A	N/A	Unbundled Digital Loop ISDN (Basic Rate) Class of Service
UDL	N/A	N/A	Unbundled Digital Loop (DDAS) Class of Service
UEAL2	Yes	Yes - 2W	2-wire Unbundled Voice Loop - Loop and Ground Start
UEAL4	Yes	Yes - 4W	4-wire Unbundled Voice Loop - Loop and Ground Start
UEAR2	Yes	Yes - 2W	2-wire Unbundled Voice Loop - Reverse Battery
U1L2X	Yes	Yes - 2W	2-wire Unbundled Digital Loop - ISDN
UDL2X	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 2.4 Kbps
UDL4X	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 4.8 Kbps
UDL9X	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 9.6 Kbps
UDL19	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 19.2 Kbps
UDL56	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 56 Kbps
UDL64	Yes	Yes - 4W	4-wire Unbundled Digital Loop - 64 Kbps

Table 6 - USOCs for Unbundled Loops

Appendix C – UDL-2W/EE, UDL-4W/EE or UCL Unbundled Loop Service Inquiry

General Information:

UDL-2W/EE, UDL-4W/EE or UCL Unbundled Loop Service Inquiry

(Chose one)
1. UDL-2W/EE (UAL) _____ 2. UDL-2W/EE (UHL) _____ 3. UDL-4W/EE (UHL) _____

4. New UCL Unbundled Loop (UCL)_____ 5. Conversion of Existing line to UCL _____ Existing TN# _____

SI # _____ Firm Order _____ Change ____ Cancel _____

Order # _____ Negotiator _____

_____Provide UCL loop >18kf as an exception Negotiator Telephone Number _____

Customer Information:

CLEC Name _____ Customer Contact/Telephone number _____

Address _____ Local Serving Central Office _____

_____ Number of lines requested _____

_____ Due Date/Requested Service Date _____

(To be filled out by Account team/CRSG should SC job be required)
Does the CLEC agree to SC quote billing? _____YES (OSPE will prepare SC quote) _____NO (OSPE will take no further action)
Date CLEC contacted about SC quote billing:_____

Outside Plant Engineering: One of the following five selections must be filled out:

1. _____ **YES** OSP Facilities are Available/reserved for 10 days FRN:_____

Cable and Pair:_____

2. _____**NO CANNOT PROVIDE,** Check here if facilities are out of design range or in an area where copper pairs are not available and cannot be provided.

3. _____**NOT Available but can be provided with a job, no special construction.** Job Number: _____
What is the expected completion interval of job after service order is rcvd. in SAC? (In Calendar Days) _____

4. _____**NOT Available but can be provided with a job, special construction is applicable.**[1]

5. _____Facilities are not immediately available, will supply by one of the following: _____CDP ____LST
(List facilities involved in Comments section.)

[1]Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of SC charges. If the CLEC agrees to the SC quote billing conditions, OSPE will return an "Authorization Letter" which will contain a detailed description of the work and the total billable amount. The completion interval and job number will be supplied on the job quote.

Comments (describe work required on job, exceptions, etc.)

_____

_____

_____

Prepared by (Facility Engineer) _____ Telephone Number _____

Revised 11-18-99
Return to Negotiator within 2 working days. Call negotiator if any delay is expected or incurred.

Example of UCL Service Inquiry

General Information:

UDL-2W/EE, UDL-4W/EE or UCL Unbundled Loop Service Inquiry

(Chose one)
1. UDL-2W/EE (UAL) _____ 2. UDL-2W/EE (UHL) _____ 3. UDL-4W/EE (UHL) _____

4. New UCL Unbundled Loop (UCL) __X__ 5. Conversion of Existing line to UCL _____ Existing TN# _____

SI # ABCDEFGHI Firm Order _X_ Change ____ Cancel ____

Order # CO1GCY20D Negotiator Paula

_____Provide UCL loop >18kf as an exception Negotiator Telephone Number 555-872-3116

Customer Information:

CLEC Name Thad's Tel Comp Customer Contact/Telephone number 555-529-0583

Address 675 W Peachtree St NW Local Serving Central Office CLMBGAMT 205321 gkl

Rm 29A51 Number of lines requested 1

Atlanta, GA 30375 Due Date/Requested Service Date 03-30-99

(To be filled out by Account team/CRSG should SC job be required)
Does the CLEC agree to quote conditions? _____YES (OSPE will prepare SC quote) _____NO (OSPE will take no further action)
Date CLEC contacted about quote conditions:_____

Outside Plant Engineering: **One of the following five selections must be filled out:**

1. _____ **YES** OSP Facilities are Available/reserved for 10 days FRN: **TJUNEXJESX031899**

   Cable and Pair: **CA 40, PR 707, CA 2514, PR 11**

2. _____**NO CANNOT PROVIDE**, Check here if facilities are out of design range or in an area where copper pairs are not available and cannot be provided.

3. _____**NOT Available but can be provided with a job, no special construction.** Job Number: _____
   What is the expected completion interval of job after service order is rcvd. in SAC? (In Calendar Days) _____

4. _____**NOT Available but can be provided with a job, special construction is applicable.**[1]

5. _____Facilities are not immediately available, will supply by one of the following: _____CDP ____LST
   (List facilities involved in Comments section.)

[1] Provide a description of the work required in the "Comments" section. The CLEC can use this information to determine if they want to pursue a quote of SC charges. If the CLEC agrees to the quote conditions, OSPE will return an "Authorization Letter" which will contain a detailed description of the work and the total billable amount. The completion interval and job number will be supplied on the job quote.

Comments (describe work required on job, exceptions, etc.)

Prepared by (Facility Engineer) **Ima. Engineer** Telephone Number **504-555-5555**

Revised 11-18-99
Return to Negotiator within 2 working days. Call negotiator if any delay is expected or incurred.

Appendix D -- Unbundled Network Terminating Wire -- SI

(Blank forms are first and are followed by a completed example)

SI#_____ Page _____ of _____

SERVICE INQUIRY
UNBUNDLED NETWORK TERMINATING WIRE

[Flows: Account Team to: I&M, OSPE, AFIG, LCSC, Account Team, CLEC)

PART I - ORDERING SECTION

FIRM ORDER_____ UPDATE_____ CANCEL_____

Date&Time submitted to I&M _____ Date response needed_____

BellSouth Marketing representative

Name_____
Title_____
Department_____
Address_____
_____
Tel No_____
FAX No_____

CLEC information

Company name_____
Contact name_____
Title_____
Department_____
Address_____
_____
Tel No_____
FAX No_____
ACNA # _____

Site Visit Information:

CLEC requests UNTW at the following site. I&M supervisor, please contact CLEC contact named above to arrange site visit.

MDU/MTU Address: _____ (Name of Apartment complex)
_____
_____
_____

WC CLLI _____

REMARKS: Request for site visit between CLEC and BST to determine feasibility of providing NTW.
_____
_____

PART II I&M Output to OSPE

I&M will visit the site detailed in Part I and input the following terminal data. OSPE will then verify the terminal addresses before forwarding the SI to AFIG for input into LFACS and to LCSC. (Duplicate for each terminal being inventoried.)

Date&Time received from Account Team _____

Remarks on Meeting with CLEC: _____

Type and number of wires used for NTW _____
Remarks: _____

BILLING FOR: ☐ SITE VISIT ONLY (Send SI directly to LCSC for Billing)
(Chose one) ☐ SITE VISIT PLUS SETUP (Send SI to OSPE)

Date & Time sent to OSPE _____

LFACS SECTION **LFACS WC** _____

RULE TO APPLY TO FICTITIOUS XBOX-NTW ONLY TERMINAL:

rule	cnst	stat	act	data entry
10		OK	1	STOP=Y,NITYP=N,NICA=HCA,NIPR=NR

The following terminal is a fictitious xbox created to allow correct assignment and flow through for the actual NTW terminals on the following pages.

New NTW Cross-box Address: **FICTITIOUS XBOX-NTW ONLY-**

IND **UNK** Taper Code _____(Use taper code of existing terminal)
RMK: **FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE**

IN COUNT: **(NONE)**

OUT COUNT: _____

TYPE: **FIXED** RZ **13** RLOE: **DCBTK**

PART II I&M Output to OSPE (CONT)

Existing Terminal Address: ____________________

Telephone number working from terminal ____________________

Apartment addresses served by existing terminal: ____________________

LFACS Information on new NTW terminal:
New Terminal Address: ____________________
Service Addr: ____________________ LOC FLR: **NTW**

IND **UNK** Taper Code __________ COUNT: ____________________
RMK: **FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE**

Community: ____________________ TYPE: **FIXED** RZ **13**

Existing Terminal Address: ____________________

Telephone number working from terminal ____________________

Apartment addresses served by existing terminal: ____________________

LFACS Information on new NTW terminal:
New Terminal Address: ____________________
Service Addr: ____________________ LOC FLR: **NTW**

IND **UNK** Taper Code __________ COUNT: ____________________
RMK: **FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE**

Community: ____________________ TYPE: **FIXED** RZ **13**

Existing Terminal Address: ____________________

Telephone number working from terminal ____________________

Apartment addresses served by existing terminal: ____________________

LFACS Information on new NTW terminal:
New Terminal Address: ____________________
Service Addr: ____________________ LOC FLR: **NTW**

IND **UNK** Taper Code __________ COUNT: ____________________
RMK: **FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE**

Community: ____________________ TYPE: **FIXED** RZ **13**

PART III OSPE Contact Information

OSPE will verify the input from I&M in PART II by checking the terminal addresses in LFACS. If the addresses are correct, forward to AFIG and LCSC, if incorrect, correct the terminal addresses to agree with LFACS and then forward to AFIG and LCSC.

OSPE Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Date&Time response submitted to AFIG & LCSC _____

PART IV - AFIG INFORMATION

AFIG Contact name_____
Address_____
_____
Tel No_____ Fax No_____

REMARKS_____
_____

PART V - LCSC

Date received from OSPE _____
Date response submitted to Account Team _____

LCSC Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Service order released for Billing UNTW with SO# _____
Due Date _____

REMARKS_____
_____
_____

SI# AXXGA0611980840a Page 1 of 6

SERVICE INQUIRY
UNBUNDLED NETWORK TERMINATING WIRE

[Flows: Account Team to: I&M, OSPE, AFIG, LCSC, Account Team, CLEC)

PART I - ORDERING SECTION

FIRM ORDER X UPDATE _____ CANCEL _____

Date&Time submitted to I&M 6/11/98@8:45AM Date response needed 6/11/98

BellSouth Marketing representative

Name Karen Seller
Title Acct. Exec.
Department Sales
Address 3535 Colonnade Pkwy.
Birmingham, AL 35243
Tel No 205-555-5555
FAX No 205-555-5556

CLEC information

Company name Super CLEC, Inc.
Contact name I. Know
Title Vice Presidnet
Department Marketing
Address 675 West Peachtree St.
Atlanta, GA
Tel No 404-555-5555
FAX No 404-555-5556
ACNA # AXX

Site Visit Information:

CLEC requests UNTW at the following site. I&M supervisor, please contact CLEC contact named above to arrange site visit.

MDU/MTU Address: Post Oak Apts. (Name of Apartment complex)
1570 Sheridan Dr.
Atlanta, GA

WC CLLI Toco Hills ATLNGATH

REMARKS: Request for site visit between CLEC and BST to determine feasibility of providing NTW.

PART II I&M Output to OSPE

I&M will visit the site detailed in Part I and input the following terminal data. OSPE will then verify the terminal addresses before forwarding the SI to AFIG for input into LFACS and to LCSC. (Duplicate for each terminal being inventoried.)

Date&Time received from Account Team **6/12/98 @ 10:00am**

Remarks on Meeting with CLEC: **CLEC representative requested 2 pairs UNTW for each living unit in building 1000**

Type and number of wires used for NTW **4 pair NTW**
Remarks:

BILLING FOR: (Chose one)
☐ SITE VISIT ONLY (Send SI directly to LCSC for Billing)
☒ SITE VISIT PLUS SETUP (Send SI to OSPE)

Date & Time sent to OSPE **6/13/98 @ 9:00am**

LFACS SECTION **LFACS WC**

RULE TO APPLY TO FICTICIOUS XBOX-NTW ONLY TERMINAL:

rule	cnst	stat	act	data entry
10		OK	1	STOP=Y,NITYP=N,NICA=HCA,NIPR=NR

The following terminal is a ficticious xbox created to allow correct assignment and flow through for the actual NTW terminals on the following pages.

New NTW Cross-box Address: **FICTITIOUS XBOX-NTW ONLY-AXX1**

IND **UNK** Taper Code **510405** (Use taper code of existing terminal)
RMK: **FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE**

IN COUNT: **(NONE)**

OUT COUNT: **NTW1, 1-2**

TYPE: **FIXED** RZ **13** RLOE: **DCBTK**

PART II I&M Output to OSPE (CONT)

Existing Terminal Address: ls bldg 1000 oak park cir ne

Telephone number working from terminal 404-329-5054

Apartment addresses served by existing terminal:
1013-1024

LFACS Information on new NTW terminal:
New Terminal Address: ls bldg 1000 oak park cir ne-axx1-dist ntw only
Service Addr: 1017 oak park cir ne LOC FLR: axxntw1

IND UNK Taper Code 510405 COUNT: NTW1, 1
RMK: FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE

Community: ATL TYPE: FIXED RZ 13

Existing Terminal Address: rs bldg 1000 oak park cir ne

Telephone number working from terminal 404-321-3193

Apartment addresses served by existing terminal:
1001-1012

LFACS Information on new NTW terminal:
New Terminal Address: rs bldg 1000 oak park cir ne-axx1-dist ntw only
Service Addr: 1004 oak park cir ne LOC FLR: axxntw1

IND UNK Taper Code 510405 COUNT: NTW1, 2
RMK: FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE

Community: ATL TYPE: FIXED RZ 13

Existing Terminal Address:

Telephone number working from terminal

Apartment addresses served by existing terminal:

LFACS Information on new NTW terminal:
New Terminal Address:
Service Addr: LOC FLR: NTW

IND UNK Taper Code COUNT:
RMK: FOR UNTW SERVICE ONLY - DO NOT ASSIGN BST SERVICE

Community: TYPE: FIXED RZ 13

PART III OSPE Contact Information

OSPE will verify the input from I&M in PART II by checking the terminal addresses in LFACS. If the addresses are correct, forward to AFIG and LCSC, if incorrect, correct the terminal addresses to agree with LFACS and then forward to AFIG and LCSC.

OSPE Contact name **IMA Engineer**
Address **675 Peachtree Street**
Atlanta GA
Tel No **404-555-5559** Fax No **404-555-5558**

Date&Time response submitted to AFIG & LCSC **6/14/98 @ 10:00am**

PART IV - AFIG INFORMATION

AFIG Contact name_____
Address_____
_____
Tel No_____ Fax No_____

REMARKS_____
_____

PART V - LCSC

Date received from OSPE _____
Date response submitted to Account Team _____

LCSC Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Service order released for Billing UNTW with SO# _____
Due Date _____

REMARKS_____
_____
_____

Appendix E -- EWO FORMS

(Blank forms are first and are followed by a completed example)

Collocation Tie Cable Input Form for LFACS, LMOS and COSMOS Page 1 of 1

(Revised 08-12-99)

OSPE Originator

Name _____ Authorization No. _____

Tel No. _____ FAX No. _____

Wire Center Name _____ WC CLLI _____

FACS WC CODE _____ NPA/NNX _____ COSMOS WC ____ COSMOS ENTITY **ALL**

CCM Contact Name _____ Tel No. _____

Collocation Application Reference # _____

Collocation Tie Cable - Metallic

Cable Name and Range	Frame & Vertical for COSMOS	Permanent Remark

RSAG/LFACS FACILITY ADDRESS **FLEX** _____

FLR: _____

Terminal _____ Ind **UNK** Taper Code **999999**

Terminal Count _____ TERM ACP **DISCONNECT AF STATUS = SP (ALL) TYPE=FIXED**

RZ13 Terminal Remark: **CLEC FACILITY** CNST: _____

LMU: .1 KF OF NON-LOADED 24 GUAGE CABLE FOR ALL PAIRS

CLEC Provided F1 Cable Input Form for LMOS and COSMOS Page 1 of 1

(Revised 07-30-97)

OSPE Originator

Name _____ Authorization No. _____

Tel No. _____ FAX No. _____

Wire Center Name _____ WC CLLI _____

FACS WC CODE _____ NPA/NNX _____ COSMOS WC ____ COSMOS ENTITY **ALL**

Service Inquiry Reference # _____

Collocation Tie Cable - Metallic

Cable Name and Range	Frame & Vertical for COSMOS	Permanent Remark
_____	**F9901**	**CLEC F1 CABLE**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

RZ13

The cables listed on this form need to be input into LFACS, LMOS and COSMOS. However, these facilities belong to the CLEC and do not make an appearance in the BST central office. The inventory in BST systems is to keep track of the cross connect at the cross-box where the CLEC F1 is terminated.

Collocation Tie Cable Input Form for LFACS, LMOS and COSMOS Page 1 of 1

EXAMPLE (Revised 08-12-99)

OSPE Originator

Name **John E. Engineer** Authorization No. **TEO 54321**

Tel No. **555-555-5555** FAX No. **555-555-5556**

Wire Center Name **Atlanta Courtland St** WC CLLI **atlngacs**

FACS WC CODE **gct** NPA/NNX **404/221** COSMOS WC **ct** COSMOS ENTITY **ALL**

CCM Contact Name **Josephine Circuit** Tel No. **954-492-1234**

Collocation Application Reference # _____

Collocation Tie Cable - Metallic

Cable Name and Range	Frame & Vertical for COSMOS	Permanent Remark
PMPL1, 1-1400	**F31, 170**	**F01/MPL**

RSAG/LFACS FACILITY ADDRESS **FLEX** **70 Courtland St**

FLR: **MPL1**

Terminal **I 70 Courtland St - MPL1** Ind **UNK** Taper Code **999999**

Terminal Count **PMPL1, 1-1400** TERM ACP **DISCONNECT AF STATUS = SP (ALL) TYPE=FIXED**

RZ13 Terminal Remark: **CLEC FACILITY** CNST: **PMPL**

LMU: **.1 KF OF NON-LOADED 24 GUAGE CABLE FOR ALL PAIRS**

CLEC Provided F1 Cable Input Form for LMOS and COSMOS Page 1 of 1

(Revised 07-30-97) EXAMPLE

OSPE Originator

Name **John E. Engineer** Authorization No. _____

Tel No. **555-555-5555** FAX No. **555-555-5556**

Wire Center Name **Orlando - Main** WC CLLI **ORLDFLPC**

FACS WC CODE _____ NPA/NNX _____ COSMOS WC ____ COSMOS ENTITY **ALL**

Service Inquiry Reference # _____

CLEC Provided F1 Cable - Metallic

Cable Name and Range	Frame & Vertical for COSMOS	Permanent Remark
XSMW1, 1-675	**F9901**	**CLEC F1 CABLE**

RZ13

The cables listed on this form need to be input into LFACS, LMOS and COSMOS. However, these facilities belong to the CLEC and do not make an appearance in the BST central office. The inventory in BST systems is to keep track of the cross connect at the cross-box where the CLEC F1 is terminated.

Appendix F -- ULC & USLC Service Inquiry

(Blank forms are first and then are followed by a completed example)

SI#_____ Page _____ of _____

SERVICE INQUIRY
UNBUNDLED LOOP CONCENTRATION
UNBUNDLED SUB-LOOP CONCENTRATION
(This service uses Lucent SLC5 eqpt.; customer must verify his switch is compatible)

[Flows: if ULC, firm or non-firm, originator sends to CCM who returns to originator. If USLC, non-firm, originator sends to OSPE who returns to originator. If USLC, firm, originator sends to OSPE who forwards to CCM who returns to originator.]

PART I - ORDERING SECTION

INQUIRY_____ FIRM ORDER_____ UPDATE_____ CANCEL_____

Date submitted to Network _____ Date response needed_____

BellSouth Marketing representative

Name_____
Title_____
Department_____
Address_____
_____
Tel No_____

Customer information

Company name_____
Contact name_____
Title_____
Department_____
Address_____
_____
Tel No_____
CCNA_____
PON_____

BellSouth service representative

Name _____
Tel No _____
Fax No_____
Service Order #_____

Order information (select one or more below)

Desired Due Date _____

_____ New system(s) (one SYS A only or SYS A and SYS B in pairs)
_____ Adding SYS B to existing SYS A
_____ Change to existing SYS A and/or SYS B service(s)

IF NEW SYSTEMS AND/OR ADDING SYS B ONLY

_____ Qty of 96-channel systems desired
_____ Test Ckt desired, _____ Qty

A-end of service

Customer ACTL CLLI code _____
(if one does not exist, the originator must obtain one from the area CLLI coordinator)

_____ at a Collocation arrangement _____ at a POP (non-collocation)

Collocation or POP address _____
_____

Z-end of service

_____Unbundled loop concentration; _____ BellSouth CO 8-character CLLI

_____Unbundled sub-loop concentration; _____ BellSouth RT 11-character CLLI
(Note: If RT CLLI not known, enter address or description of location desired below)
_____
_____

SI#_____ Page _____ of _____

PART I (continued)

General service options (Both systems on the same DCB do not have to be optioned identically. If they are not optioned the same, submit separate sheets for each group of options.)

Check one block below for TR level, # DS1s per 96 channel system, line code, and frame format combination desired and use NC code on ASR, give number of CFAs per 96-channel system:

Check one below	TR	# DS1s per 96 channel system	Line code and frame format	Protected	NC Code	# of CFA slots per 96-ch sys
	008	4	AMI/SF	No	HCKA	4
	008	4	AMI/SF	Yes	HCKA	5
	008	4	B8ZS/SF	No	HCKB	4
	008	4	B8ZS/SF	Yes	HCKB	5
	008	2	AMI/SF	No	HCKD	2
	008	2	AMI/SF	Yes	HCKD	3
	008	2	B8ZS/SF	No	HCKE	2
	008	2	B8ZS/SF	Yes	HCKE	3
	303	4	B8ZS/ESF	No	???	4
	303	4	B8ZS/ESF	Yes	???	5
	303	3	B8ZS/ESF	No	???	3
	303	3	B8ZS/ESF	Yes	???	4
	303	2	B8ZS/ESF	No	???	2
	303	2	B8ZS/ESF	Yes	???	3

Will this be integrated into the customer's switch (required for TR303)? Y/N_____
If Y, enter the switch type, release level, and other pertinent information_____

If N, enter the COT type (n/a for TR303) and other pertinent information_____

CFA of T1TIEs or DS3 slots to use (see table above for quantity required):

For first 96 channel system_____

For second 96 channel system_____

(Use additional sheets for additional systems on this order)

IF ADDING SYS B TO EXISTING SYS A OR CHANGE TO EXISTING SYS A AND/OR SYS B SERVICE(S)

List CLF IDs of existing SYS A service or of SYS A/SYS B service(s) to be modified

Additions or Changes desired

change #DS1s from _____ 2 to 3 _____ 2 to 4 _____ 3 to 4
change #DS1s from _____ 3 to 2 _____ 4 to 2 _____ 4 to 3
_____ add _____ remove protect line

Added CFA slots (if adding SYS B or increasing DS1s or adding protection), or *IDs of DS1s* (to be disconnected if removing DS1s or removing protection)

REMARKS_____

SI#_____ Page _____ of _____

PART IA (for USLC service only, do not use for ULC service)

PG System Count and LT Status-

For new USLC service, designate the LT status (planned use) desired for every slot on each 96 channel system. For changes to existing service, designate the LT status to be changed to. Pairs 1-24 are on digroup A, 25-48 on B, 49-72 on C, and 73-96 on D.

LT status definitions:

ES - POTS plug slot (2-wire, loop start, voice grade)
ET - SPOTS plug slot (2-wire, ground start, voice grade)
D - Designed circuits (all other than ES, ET, and EB; includes 'Test Ckt' option)
EB - Basic rate ISDN (LTS NAEB and NAB2 go with this LTS)*

* ISDN requires provisioning using the tri-slot arrangement using the following LT's: Slot 1, pair one, EB; Slot 1, pair two NAEB; Slot two, pair one EB; Slot two, pair two NAEB; Slot 3, pairs 1 and 2, NAB2.

Pair Gain System Count (first 96 channel system)	LT Status	Pair Gain System Count (second 96 channel system)	LT Status

Pair Gain System Count (third 96 channel system)	LT Status	Pair Gain System Count (fourth 96 channel system)	LT Status

Pair Gain System Count (fifth 96 channel system)	LT Status	Pair Gain System Count (sixth 96 channel system)	LT Status

(use additional sheets if necessary)

SI#_____ Page _____ of _____

PART II - OSPE RESPONSE SECTION (for USLC only)

OSPE Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Date response submitted to CCM _____

Check off one:

_____ Facilities and equipment available on _____

_____ Facilities not available, special construction required.

Scope of construction required:_____
_____

_____ Facilities not available, construction not possible.

Vendor and description of equipment and options that will be used_____
LUCENT SLC SERIES 5 ENHANCED FPB FEATURE PKG 303

RT CLLI code _____

Outside Plant authorization required ____Y ____ N Authorization number _____

Specific loop cable assignments for T1s _____
_____
_____

Pair gain system number and cable and count:

	Pair gain system number	Cable	Count
First 96 channel system			
Second 96 channel system			
Third 96 channel system			
Fourth 96 channel system			
Fifth 96 channel system			
Sixth 96 channel system			

(use additional sheets if necessary)

REMARKS_____
_____

SI#_____ Page _____ of _____

PART III - CCM RESPONSE SECTION

Date received from OSPE (if USLC) _____
Date response submitted to originator _____

CCM Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Facilities and equipment available on _____

Vendor and description of equipment that will be used LUCENT SLC SERIES 5 RT
WITH ENHANCED FPB WITH FEATURE PKG 303

TEO#/Authorization# _____

CLF IDs (use additional sheets if necessary):

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

REMARKS_____
_____
_____

SI# SIGA110950WRM Page 1 of 5

SERVICE INQUIRY
UNBUNDLED LOOP CONCENTRATION
UNBUNDLED SUB-LOOP CONCENTRATION
(This service uses Lucent SLC5 eqpt.; customer must verify his switch is compatible)

[Flows: if ULC, firm or non-firm, originator sends to CCM who returns to originator. If USLC, non-firm, originator sends to OSPE who returns to originator. If USLC, firm, originator sends to OSPE who forwards to CCM who returns to originator.]

PART I - ORDERING SECTION

INQUIRY_____ FIRM ORDER X UPDATE_____ CANCEL_____

Date submitted to Network 3/31/98 Date response needed 4/15/98

BellSouth Marketing representative

Name SCOTT HALL
Title CHIEF SD OF LESSER SD GROUP
Department BIG MARKETING IDEAS
Address 12 SOUTHPARK DRIVE
ATLANTA, GA
Tel No 404-770-1234

Customer information

Company name CLECS 'R US
Contact name HOLLYWOOD HOGAN
Title CEO/CII/CIIC/CBA/ETC
Department FRONT ROW
Address FCC ANNEX (NEXT TO CHAIRMAN)
WASHINGTON, DC
Tel No 204-788-6654
CCNA AVS
PON ULCATLGAWE12345/45YYUB

BellSouth service representative

Name BILLIE CLINTON
Tel No 1-800-457-4000, EXT 554543210#
Fax No 770-345-8890
Service Order # CY8TT3R4

Order information (select one or more below)

Desired Due Date 5/31/98

X New system(s) (one SYS A only or SYS A and SYS B in pairs)
_____ Adding SYS B to existing SYS A
_____ Change to existing SYS A and/or SYS B service(s)

IF NEW SYSTEMS AND/OR ADDING SYS B ONLY

2 Qty of 96-channel systems desired
X Test Ckt desired, 1 Qty

A-end of service

Customer ACTL CLLI code ATLNGAWEW1A
(if one does not exist, the originator must obtain one from the area CLLI coordinator)

X at a Collocation arrangement _____ at a POP (non-collocation)

Collocation or POP address 1211 GORDON ST., ATLANTA, GA

Z-end of service

_____Unbundled loop concentration; _____ BellSouth CO 8-character CLLI

X Unbundled sub-loop concentration; _____ BellSouth RT 11-character CLLI
(Note: If RT CLLI not known, enter address or description of location desired below)
NEAREST REMOTE HUT SITE AT CORNER OF MAIN ST. AND GALLERIA PKWY

SI# SIGA110950WRM Page 2 of 5

PART I (continued)

General service options (Both systems on the same DCB do not have to be optioned identically. If they are not optioned the same, submit separate sheets for each group of options.)

Check one block below for TR level, # DS1s per 96 channel system, line code, and frame format combination desired and use NC code on ASR, give number of CFAs per 96-channel system:

Check one below	TR	# DS1s per 96 channel system	Line code and frame format	Protected	NC Code	# of CFA slots per 96-ch sys
	008	4	AMI/SF	No	HCKA	4
	008	4	AMI/SF	Yes	HCKA	5
	008	4	B8ZS/SF	No	HCKB	4
	008	4	B8ZS/SF	Yes	HCKB	5
	008	2	AMI/SF	No	HCKD	2
	008	2	AMI/SF	Yes	HCKD	3
	008	2	B8ZS/SF	No	HCKE	2
X	008	2	B8ZS/SF	Yes	HCKE	3
	303	4	B8ZS/ESF	No	???	4
	303	4	B8ZS/ESF	Yes	???	5
	303	3	B8ZS/ESF	No	???	3
	303	3	B8ZS/ESF	Yes	???	4
	303	2	B8ZS/ESF	No	???	2
	303	2	B8ZS/ESF	Yes	???	3

Will this be integrated into the customer's switch (required for TR303)? Y/N Y
If Y, enter the switch type, release level, and other pertinent information LUCENT TECHNOLOGIES 5ESS, RELEASE 13.5.E

If N, enter the COT type (n/a for TR303) and other pertinent information

CFA of T1TIEs or DS3 slots to use (see table above for quantity required):

For first 96 channel system 80016, 17, 18/T1TIE/ATLNGAWE/ATLNGAWEW1A

For second 96 channel system 80019, 20, 21/T1TIE/ATLNGAWE/ATLNGAWEW1A

(Use additional sheets for additional systems on this order)

IF ADDING SYS B TO EXISTING SYS A OR CHANGE TO EXISTING SYS A AND/OR SYS B SERVICE(S)

List CLF IDs of existing SYS A service or of SYS A/SYS B service(s) to be modified

Additions or Changes desired

change #DS1s from _____ 2 to 3 _____ 2 to 4 _____ 3 to 4
change #DS1s from _____ 3 to 2 _____ 4 to 2 _____ 4 to 3
_____ add _____ remove protect line

Added CFA slots (if adding SYS B or increasing DS1s or adding protection), or *IDs of DS1s* (to be disconnected if removing DS1s or removing protection)

REMARKS DO IT IN A HURRY BECAUSE WE HAVE A CUSTOMER WAITING

PART IA (for USLC service only, do not use for ULC service)

PG System Count and LT Status-

For new USLC service, designate the LT status (planned use) desired for every slot on each 96 channel system. For changes to existing service, designate the LT status to be changed to. Pairs 1-24 are on digroup A, 25-48 on B, 49-72 on C, and 73-96 on D.

LT status definitions:

ES - POTS plug slot (2-wire, loop start, voice grade)
ET - SPOTS plug slot (2-wire, ground start, voice grade)
D - Designed circuits (all other than ES, ET, and EB; includes 'Test Ckt' option)
EB - Basic rate ISDN (LTS NAEB and NAB2 go with this LTS)*

* ISDN requires provisioning using the tri-slot arrangement using the following LT's: Slot 1, pair one, EB; Slot 1, pair two NAEB; Slot two, pair one EB; Slot two, pair two NAEB; Slot 3, pairs 1 and 2, NAB2.

Pair Gain System Count (first 96 channel system)	LT Status	Pair Gain System Count (second 96 channel system)	LT Status
1-2	D	1-96	ES
3-16	ES		
17-24	D		
25-96	ES		

Pair Gain System Count (third 96 channel system)	LT Status	Pair Gain System Count (fourth 96 channel system)	LT Status

Pair Gain System Count (fifth 96 channel system)	LT Status	Pair Gain System Count (sixth 96 channel system)	LT Status

(use additional sheets if necessary)

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PART II - OSPE RESPONSE SECTION (for USLC only)

OSPE Contact name O.S. PELANNER
Address 1544 MAIN ST.
COLUMBUS, GA
Tel No 569-888-3456 Fax No 569-334-7896

Date response submitted to CCM 4/10/98

Check off one:

X Facilities and equipment available on 6/22/98

_____ Facilities not available, special construction required.

Scope of construction required: _____

_____ Facilities not available, construction not possible.

Vendor and description of equipment and options that will be used
LUCENT SLC SERIES 5 ENHANCED FPB ~~FEATURE PKG 303~~

RT CLLI code ATLNGAU0068

Outside Plant authorization required X Y ____ N Authorization number GABR549

Specific loop cable assignments for Tls EXCH CA TY234, PAIRS 123-128, 744-749

Pair gain system number and cable and count:

	Pair gain system number	Cable	Count
First 96 channel system	A307	UPG12	1-96
Second 96 channel system	B307	UPG12	101-196
Third 96 channel system			
Fourth 96 channel system			
Fifth 96 channel system			
Sixth 96 channel system			

(use additional sheets if necessary)

REMARKS

SI# SIGA110950WRM Page 5 of 5

PART III - CCM RESPONSE SECTION

Date received from OSPE (if USLC) 4/13/98
Date response submitted to originator 4/15/98

CCM Contact name C.C. MANAGER
Address 6451 N. FEDERAL HIGHWAY
FT. LAUDERDALE, FL
Tel No 954-492-6677 Fax No 954-958-7788

Facilities and equipment available on 6/22/98

Vendor and description of equipment that will be used LUCENT SLC SERIES 5 RT WITH ENHANCED FPB ~~WITH FEATURE PKG 303~~

TEO#/Authorization#

CLF IDs (use additional sheets if necessary):

A307/PT1Z/ATLNGAU0068/ATLNGAWEW1A	B307/PT1Z/ATLNGAU0068/ATLNGAWEW1A
A307C/PT1Z/ATLNGAU0068/ATLNGAWEW1A	B307C/PT1Z/ATLNGAU0068/ATLNGAWEW1A
A307P/PT1Z/ATLNGAU0068/ATLNGAWEW1A	B307P/PT1Z/ATLNGAU0068/ATLNGAWEW1A

REMARKS THIS IS THE EARLIEST THE VENDOR CAN GET THE EQUIPMENT FROM THE FACTORY

Appendix G -- Dark Fiber Service Inquiry

Form revised 6/12/97, 6:30pm

SI#_____ Page _____ of _____

SERVICE INQUIRY - UNBUNDLED DARK FIBER

[Flow-If both ends have the same LSO, submit only to OSPE who will return to originator. If each end has a different LSO, submit to OSPE and CCM in parallel; each will respond to originator. If both ends are POP/Collocator, whether in same LSO or not, submit to CCM only. In any case, a firm order must always be preceded by an inquiry.]

INQUIRY_____ FIRM ORDER_____ UPDATE_____ CANCEL_____

PART 1 - ORDERING SECTION

Date submitted to Network _____ Date response needed_____

BellSouth Marketing representative

Name_____
Title_____
Department_____
Address_____
_____
Tel No_____

Customer information

Company name_____
Contact name_____
Title_____
Department_____
Address_____
_____
Tel No_____
PON_____

BellSouth service representative

Name _____
Tel No _____
Fax No_____
Service Order #_____
Circuit ID's _____
_____

Order information

Desired Due Date _____ Quantity of 4-fiber ckts. desired _____

A-end of service

NPA_____ LSO_____ OSPE District_____ NCI _____

SWC CLLI_____ Prem/POP CLLI_____

Address_____
_____

Building_____ Floor_____ Room_____

REMARKS_____
_____

Z-end of service

NPA_____ LSO_____ OSPE District_____ NCI _____

SWC CLLI_____ Prem/POP CLLI_____

Address_____
_____

Building_____ Floor_____ Room_____

REMARKS_____
_____

SI#_____ Page _____ of _____

PART II - OSPE RESPONSE SECTION
(two response pages required if two end user locations apply)

OSPE Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Date response returned to originator_____

Loop fiber available on _____

Route length in miles (Cust prem to SWC)_____ miles
Engineered (estimated) design loss_____ db

Special construction job#, considerations, and costs:_____
_____
_____

FRN_____

Assignments:

* Loop fibers_____
_____
_____

* Cable name/number_____

* Customer Prem Fiber Interconnect Equipment_____
_____

(* answer only if a firm order)

Design sketch:

SI#_____ Page _____ of _____

PART III - CCM RESPONSE SECTION
(one response page for each CO-CO cross-section involved)

Date response returned to originator_____

CCM Contact name_____
Address_____
_____
Tel No_____ Fax No_____

Date response returned to originator_____

IOF fiber available on _____

Route length in miles (CO to CO)_____ miles
Engineered (estimated) design loss_____ db

If not available, special construction not required in KY. Special construction job#, considerations, and costs:_____
_____
_____

* IOF fiber assignments:_____
_____
_____

(* answer only if a firm order)

Design sketch:

SI#_____ Page _____ of _____

PART IV- Total Service Summary Data
(originator to compile from OSPE and/or CCM responses)

Overall four spare fibers available? Yes_____ No_____

Overall Date available_____

Total route length in miles _____ miles

Total estimated loss_____ db

Any construction required? Yes____ No____

Special construction considerations_____

Job#(s)/Desription(s)_____

Costs_____

REMARKS_____

Overall design sketch:

Appendix H – Side-Door, Hairpin & DCS Provisioning Process

PROVISIONING PROCESS FOR IDLC TRANSITING 1/0 DCS

OSPE

1. Identify ALL SLC systems that should terminate in a DCS today (physical inventory) and mark all PG pairs associated with DCS systems with SDP="A" in LFACS. The SDP="A" option will allow POTS service to be compatible with a DCS or side-door arrangement. SDP="A" will also allow the use of one pair at a time keeping the ES status for the POTS plugs. DO NOT change the LTS to "D" and unassemble all the pairs associated with the plug.
2. Pass EIU information to CCM to inventory in TIRKS. The T1s from the DCS to the switch and the T1s from the RT to the DCS need to be inventoried in TIRKS so TIRKS can make the necessary time slot assignments.
3. Provide information for Taskmate program (SUPERSLC) to build header information. This is a normal process whenever OSPE adds DLC systems and the LEIM reports associated with the job to install the systems will make this happen. However, the DCS must be shown in this process.

CPG

4. Build SLC headers in TIRKS, using Taskmate Program. Headers could be built manually, if need dictates. (Taskmate program development is in CCM. Dean Cox is the SME in Mike Zier's Group.

Process Flow

1. If the PG pair has the SDP="A" the order will flow through for reuse (after new EPG release to show SDP="A" compatible for POTS), for new service it will RMA and LFACS will need to force the assignment of a PG pair with SDP="A". The order will fall out of COSMOS if there is an existing OE assembly and OSPE will need to tell L&N to unassemble. If SDP="A" is not present, the service order will RMA to AFIG when no facilities are available for the UNE loop. The AFIG will PF to OSPE.
   a) If the order is for existing facilities the reuse FID will drive the order to reuse the loop if the SDP-'A' option is set. If SDP='A' is not set then the automatic LFACS algorithms will search for alternate facilities before PF'ing to OSPE.
   b) DCS door cannot be used for SL1

1. OSPE will review for other facilities. When none are available and this IDLC does route through 1/0 DCS, the OSPE group will update the service order to:
   a) Mark as side door (SDP="A")
   b) Perform quick release on the service order
   c) Fax assigned facility to L&N so that they can disassemble O.E. from facility. (A program is being written to allow OSPE to break the assembly themselves. When this is available the SAC will be able to break the assembly in COSMOS before releasing the order.)

1. The CPG will receive the order for design and issue the design.

1. The UNEC will handle coordinated turn-up. Initially the UNEC will not have access through the Integrated test systems to the DCS. The dial tone verification will be done by the central office operations group.

1. The UNEC will handle disconnecting the cross connects in 1/0 DCS, and reactivating the commands to make the connection to the alternate facility for interconnection to CLEC facility.

Side-Door and Hairpin Provisioning

Current provisioning by using side-door port or hairpin technology requires that both the odd and even pairs associated with the plug be pulled out of the switch at the same time. There is no way to provision one pair at a time.

The recommended first choice procedure is to use a completely vacant slot in the DLC and mark it SDP=A and unassemble in the switch and in COSMOS. The existing integrated circuit can then be cut to the new side-door or hairpin circuit at the cross-box. This allows all provisioning and testing to be completed before the cut. Since we have a 15-minute window to accomplish this cut this makes it much more likely that we will make the cut on time. When POTS type orders are worked it is possible to use both odd and even pairs for unbundled loops. However, it is not possible to use one of the pairs for regular switched BST service.

Appendix I -- USL Service Inquiry (SI)

USL Unbundled Loop Service Inquiry

Service Inquiry to set up USL

General Information:

Service Inquiry Num. (PON Num.) _____ Firm Order _____ Change ____ Cancel _____

Negotiator _____

Negotiator Telephone Number _____

Customer Information

CLEC Name _____ Customer Contact/Telephone number _____

Address _____ Local Serving Central Office _____
(Eight Character CLLI for CO)

_____ CLEC Master Q Account _____
(This is master Q for billing of xbox setup for USL.)

_____ CLEC ACNA _____

(To be filled out by Account team/CRSG should SC job be required)

Does the CLEC agree to SC quote billing? _____YES (OSPE will prepare SC quote) _____NO (OSPE will take no further action)

Date CLEC contacted about SC quote billing:_____

CLEC Request

Choose one of the following:

_____CLEC wants USL at a building
(USBSC for setup, USBSD for each 25 pr. blk.)

_____CLEC wants USL at a BST crossbox
(USBSA for setup, USBSB for each 25 pr. blk.)

Building or crossbox address:

_____

_____

_____

Provide _____tie pairs at the BST crossbox (25 pair increments)

Outside Plant Engineering Response to CRSG/Account Team

Choose one of the following:

1. _____ Check here if not available at this location. Skip down to Comments and place explanation of why not available in the Comments section.

2. Job Number _____ Estimated Completion Date: _____

Actual Completion Date: _____

(Notify originator when job completes or if ECD changes.)

Cable and Pair _____ (Supply back to CLEC for assignment control when tie pairs are used at BST crossbox.)

3. _____Special Construction required, need confirmation in "Customer Information" section to prepare quote

Comments (describe work required on job, exceptions, etc.)

_____

_____

Prepared by (Facility Engineer) _____ Telephone Number _____

OSPE Response to LCSC

Charge one setup charge and _____ number of 25 pair block setup charge(s).

(Use USOCS for "building" or "crossbox" as marked in "CLEC Request" Section.)

Revised 11-18-99

Return to Negotiator within 5 working days. Call negotiator if any delay is expected or incurred.

Appendix J -- CLEC Complaint Documentation Procedure

July 10,1997

To: Distribution List

From: Jon Rey Sullivan
Director - Real Time Resolution Group

Subject: CLEC Complaint Documentation Procedure

It is essential that we continue to be well prepared to respond to complaints made by all our customers. CLEC complaints are important as they have the potential to impact our entry into long distance and can come in various forums. After perusing the complaints BellSouth receives from CLECs as well as those received by other RBOCs, it is apparent that CLEC complaints cover a broad spectrum. Complaints may be end user specific or may relate to several end users. They may be verbal or written, justified or unjustified, provisioning related or related to a trouble condition. The bottom line is that we need to be prepared to thoroughly and completely respond regardless of the type of complaint or the forum in which it is presented.

Our mechanized systems can usually be relied upon to provide a great amount of detail as to what occurred when a response to a complaint is warranted. However, often additional details are needed which are not available via our mechanized systems. In such instances, it is frequently necessary to rely on supervisory notes and/or supervisory memory of what occurred.

It has been determined that all entities with direct CLEC interface must begin to record certain information if they are not doing so already. Many of the groups in the account teams, LCSC support, UNE Center and others are already keeping some documentation. It is critical that all supervisory personnel in all CLEC customer interface entities document the following basic information anytime they are involved in a situation which has the potential to result in a CLEC complaint. The documentation is retained at the desk or work site.

1. CLEC(s) Impacted
2. CLEC Employee Name/Telephone Number
3. Date
4. Problem Description/Situation/What Was Asked
5. Response By Employee
6. BST Employee Name/Telephone Number

The recording of the above information will allow the Real Time Resolution Group (RTRG), or other entity performing the investigation of alleged activity, to gather factual information that will allow BellSouth to refute the allegations made against the company.

A form is attached which may be used to document this information but which is not a requirement. An employee may keep their own personal written notes or retain the information in a mechanical manner. The content of what is documented is of importance, not the format that is used to maintain the documentation. I appreciate your support of this request so that we can continue to be well positioned to respond to CLEC complaints by reconstructing what occurred.

CLEC Complaint Documentation Form

Date: _____

CLEC(S) IMPACTED: _____

_____

CLEC Employee Name/Telephone #: _____ | _____

Problem description/situation/what was asked:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Response By Employee:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

BST Employee/Telephone #: _____

Appendix K – TRAPPER Center Contact List

REGIONAL TRAPPER CENTER
CONTACT LIST

MA	Office	Pager
Peggy Jeffers (Georgia)	**770 391-6268**	
Pam Shepherd (Florida)	**770 698-6570**	
Lynne Ward (TN, KY, NC, SC, LA, AL, MS)	**770 391-6286**	
Karen Fry (Back-up)	**770 391-6275**	
Sherry Grizzle, Supervisor	**770 391-2272**	**1-888 534-2168**
Cheryl Haynes, Manager	**770 391-3888**	**1-888 490-7807**
Sherrian Lively, Manager	**770 391-3744**	**1-888 490-7699**

OSPE

Technology and Services Group

Feedback Form

Document:
Number: Issue G **Title:** OSPE M&Ps for Provisioning Unbundled Network Elements

1. **On a scale of 1 to 5, with 5 being the most favorable response, how beneficial was this information to you?**

5	4	3	2	1
Most Beneficial				Least Benefcial

If your response was "1" or "2" please explain why. _____

_____

_____

2. **How satisfied were you with the presentation of this material (format, amount of detail, etc.)?**

5	4	3	2	1
Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied

If you were dissatisfied, please explain why: _____

_____

_____

3. **How timely was this material?**

Exactly Right	About Right	Late	Very Late

4. **Other comments, suggestions, questions, concerns?** _____

_____

_____

Optional

Name: _____ **Telephone:** _____

Address: _____

_____

_____

(Return address on back / Please fold and staple to mail)

COMPANY MAIL

Angela S. Cribb
Manager - Technology/Services
North W3D
3535 Colonnade Parkway
Birmingham, AL 35243

Unbundled Network Elements (UNEs)

Methods and Procedures
Circuit Capacity Management (CCM)

Document:	CCM 97-014, Issue 11 (not issued yet) ????????
Author:	Bill McAllister, 205-977-2710 John Eppenger, 205-977-5063
Contents:	Circuit Capacity Management (CCM) Methods and Procedures for *selected* Unbundled Network Elements (UNEs)
Reference:	Collocation methods and procedures Local service interconnection methods and procedures Unbundled Loop and Unbundled Sub-loop Concentration methods and procedures Dark Fiber methods and procedures

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

BellSouth is continuing to unbundle various tariffed services in order that the unbundled elements can be offered to our competitors. This unbundling is considered to be part of the 'checklist' that BellSouth must meet in order to enter the long distance business.

These procedures cover selected unbundled items that affect the CCM groups.

Unbundled network elements will generally look like normal services and end to end circuits from a planning and provisioning point of view. They will be handled in the same manner as their normal service where possible. Most of the time you won't even realize you're provisioning an unbundled service. There are many configurations of unbundled elements when they are 'repackaged' into a circuit. In some states when a circuit is 'repackaged' it will be considered resale (which is nothing more than selling a service to one party who will then resell it to someone else). In any case we've tried to make the unbundled services look like existing circuits from a planning and provisioning point of view.

Unbundling occurs in the following general categories: 1) loops, sub-loops, and loop concentration, 2) switch ports, 3) interconnection, 4) operator services, 5) operational systems, 6) dedicated and shared interoffice transport and multiplexing, 7) dedicated and shared switching, 8) database access, 9) signaling, 10) network interface devices (NIDs), and 11) local service resale. The CCM will be involved with items 1, 2, 3, 4, 6, 7, and 9.

1.0 GENERAL

1.1 Issue 11 (??????) made the following changes:

- Appendix 3, updated service inquiry form and instructions
- xxxxx

Issue 10 (10/14/99) made the following change:

- 2.03, added language concerning interoffice extension for selected unbundled loops (DS1 for now). This is the UEL feature.

Issue 9 (10/5/99) made the following change:

- 2.03, deleted text referring to service inquiry table, added text describing local loop, local channel, and interoffice transport, and moved service inquiry table to section 4.0 of these procedures.
- 2.04, modified text to describe local loops, local channels, and interoffice channels.
- 2.04 A., modified to note that ADSL and HDSL UNEs are local loop only.
- 2.04 B., modified to further describe service codes, allocation groups, and add STS1 to the offering
- 2.04 C., deleted text, information incorporated in other places.
- 2.04 D., struck through unbundled channelization text until this can be further developed.
- 3.02, removed statements about loop and interoffice circuit 'control'; these no longer apply.
- 3.03, moved NCI table from 2.04 to this paragraph; added DS1, DS3, and STS1 NCI codes.
- Appendix 1 and Appendix 2, both deleted since they contained duplicate and/or useless information
- Appendix 3, added service inquiry and isntructions for interoffice and local channel DS3/STS1 services.

Issue 8 (12/1/98) made the following change:

- Added subrate digital unbundled loops and ADSL/HDSL loops.
- Updated NCI table in several locations. Will update FEPSSVC to match.

Issue 7 (11/98) made the following changes:

- Made major wording changes to 2.04 A to note that intraoffice unbundled loops do NOT require an allocation group and planning deesign even when DACS Door is used. Interoffice applications do require them.
- Added ULC test circuit and future dry copper to NCI table in 2.04A.

Issue 6 updated the CUST END in 2.04 D. 1) and 2.04 D. 2) to 'C' instead of 'B'.

Issue 5 made the following changes:

- 2.04 A. Unbundled Loop NCI table, corrected 04QC5.00P to 04QC5.OOP.
- 2.04 D. Unbundled Central Office Channelization, made changes to NC, NCI, and CUST END codes.
- Appendix 1, added 'Recombined UNEs to table'; noted that this Appendix is not intended to be comprehensive.
- Appendix 2, added new Appendix to address 'Recombined UNEs'

Issue 4 made the following changes:

- Added unbundled loop NCI table in 2.04 A.

Issue 3 included the following changes:

- Added sub-paragraph lettering to items under section 2.04.
- In 2.04 A added the NOTE that describes the non-designed local loop process in the unbundled loop paragraph.
- In 2.04 D added wording dealing with the DS1 that can be ordered between two switches that works with the 'branding/unbranding' of operator services.
- In 2.04 K added wording dealing with Operator Services.
- In 2.04 L clarified wording on unbundled DCS ports.
- In 4.02 removed wording concerning the 3-digit service combination. The PROJECT field on the ASR will contain only 'UNE' without the proposed 3-digit UNE combination matrix code.

Issue 2 included the following changes:

- Listed the unbundled loop technical standard as being TR 73600 in section 2.04.
- Removed packet switching row from table in 2.03.
- Combined FR and CDS into Unbundled Packet Services (UPS)-Fast Packet Ports onto a single line in table in 2.03; inserted details concerning this in 2.04.
- Updated 'guiding principles' in 3.02 to note in the third bullet that the loop controls, not the IOF.

1.02 Unbundled network elements are being offered to BellSouth's competitors. The offering of these unbundled services is necessary in order to satisfy the 'checklist' that must be fulfilled in order for BellSouth to enter the long distance market.

See the Executive Summary for other details.

See Appendix 1 for a comprehensive list of all unbundled elements and related elements.

1.03 NECA4 office type codes do not apply for UNEs.

1.04 A new center similar to the ACAC has been established to coordinate the installation and maintenance of unbundled network elements. It is called the Unbundled Network Element Center (UNEC).

2.0 SERVICE DESCRIPTIONS

2.01 Each unbundled service that involves the CCM will contain its own description and where possible will be covered in these procedures. In a couple of cases it may be necessary to write a separate document for an unbundled service (such as Unbundled Loop Concentration service and Unbundled Dark Fiber service).

2.02 When one element of a circuit contains a UNE, all elements on the circuit must be UNEs. For example when a customer purchases unbundled local loop and wants to route it over the interoffice network and connect it to an unbundled switch port, there will be three unbundled elements, the loop, the interoffice transport, and the switch port (and switching functions). A customer cannot mix UNE elements with regular tariffed elements.

2.03 Unbundled transport is grouped into three categories:

- Unbundled Local Loop – transport between a collocation arrangement and an end user customer site whose serving wire center is the central office in which the collocation arrangement is located. Some types of unbundled local loops (DS1 for now) may also have an interoffice extension (UEL) and route from an end user customer to a foreign CO over the interoffice network.

- Unbundled Local Channel – transport between a CLEC's collocation arrangement and that same CLEC's POP whose serving wire center is the central office in which the collocation arrangemetn is located.

- Unbundled Interoffice Transport – transport between a CLEC's collocation arrangement in one central office to that same CLEC's collocation arrangement in another central office.

2.04 Individual UNE element descriptions (describe local loop, local channel, and interoffice transport unless otherwise noted):

A. **Unbundled voice,2-wire analog (loop start, ground start, or reverse battery)**
Unbundled voice, 4-wire analog (loop start or ground start)
Unbundled digital, 2-wire, basic rate ISDN capable
Unbundled digital, 4-wire, 2,4kb, 4.8kb, 9.6kb, 19.2kb
Unbundled digital, 4-wire, 56kb
Unbundled digital, 4-wire, 64kb
Unbundled, 2-wire, ADSL capable (local loop only)
Unbundled, 2-wire, HDSL capable (local loop only)
Unbundled, 4-wire, HDSL capable (local loop only)

NOTE: This section deals with 'designed' unbundled transport; the customer may order 'non-designed' unbundled voice, 2-wire analog local loops if he desires, however.

Each of the above five categories will use NC code LY-- and will use service code/modifier LYFU.

- **Intraoffice** unbundled local loop circuits (A and Z CLLI match at first 8-characters even if CLLI contains 11-characters) do NOT require an allocation group or planning design in any circumstance. Even when the intraoffice unbundled loop routes through a DLC system through a DCS and out through a D4 (DACS Door), a group and design are not required. The CPG design process will post the circuit without a group or design in these cases. The FEPS TTS table FEPSSVC has the 'intra' flags set to Y to make sure that PPI does not call for a group or design in these cases.

- In order to drive **local channel and interoffice** applications of each category to its proper allocation group and planning design it is necessary to use the NC/NCI process in PPI in addition to the service code/modifier. The SEC NCI codes are unique enough to use for this purpose.

The unbundled basic rate ISDN capable service is the same as the ANSA IOF basic rate ISDN service, that is, it requires three consecutive channels and will drive to the IS06 allocation group.

The digital 4-wire, 2.4 kb through 56kb services are the same as a DDAS/SynchroNet service except that they do not have to be routed through a test hub site (it's not figured in the costing and pricing). They are physically the same as the DIG group except for that routing restriction. They have been mapped to a new group called DIGU to keep the circuits separate from the DIG group designs which route through test hubs.

The digital 4-wire 65kb service is the same as 64cc DDAS/SynchroNet service except that they do not have to be routed through a test hub site (it's not figured in the costing and pricin). It is physically the same as the ISDB group except for that routing restriction. It has been mapped to a new group called ISDU to keep the circuits separate from the ISDB group designs which route through test hubs.

B. **Unbundled digital DS1**
Unbundled digital DS3 or STS1

The above UNEs will be provisioned the same as circuits with service codes HC for DS1s and HF for DS3s are done today. DS1s will map to allocation group NHC1 or ISDB and DS3s and STS1s will map to NHC3. Service code HCFU will be used for DS1s and HFFU will be used for DS3s. JIFU will be used for STS1s.

C. this paragraph deleted in Issue 9

D. Unbundled Central Office Channelization, DS1 to DS0, DS3 to DS1 (one ended and two ended)

This paragraph D is being struck out in Issue 9 until unbundled central office channelization is further developed.

~~The one-ended versions of these services are normal customer purchased channelized DS1s and DS3s which will require CLF IDs and SCS records.~~

~~The two ended variety is slightly different. It has no customer site on either end, but instead both ends have muxes in BellSouth COs. They also require CLF Ids and SCS records. The SCS records are to be built the same as for one-ended customer purchased services except as noted below.~~

~~There are two types of two-ended unbundled central office channelization:~~

~~1) A DS1 or DS3 that has a true mux on both ends such as a D-bank, DCS port, or 3/1 mux~~

~~A service inquiry via CSPS will always be submitted for this order and it will never be processed by CLFAUTO. Process these as you would any other customer purchased channelized service.~~

- ~~The ACTL will be one of the 8-character CO CLLI codes (do not use all Zs).~~
- ~~The CLLI codes on the ends of the facility will be the normal CO codes (8-character for normal mux, 11-character for DCS mux).~~
- ~~True bank codes will be used on both ends.~~
- ~~These facilities will carry a FAC USE code of HC.~~
- ~~Place an H in the fourth position of the subpath number.~~
- ~~The CUST END field should contain C.~~
- ~~ORD INTVL=0, ACC-ESS=Y, PIU=000.~~
- ~~Put the customer's CCNA in the CUSTOMER field.~~
- ~~The NC codes that will be used are HC$Y for DS1s ($ contains the usual AMI/B8ZS/SF/ESF options) and HF$N ($=K for T3S, $=N for T3ZS) for DS3s.~~
- ~~The NCI code will be 04DS9.$$ for DS1 services and 04DS6.44 for DS3 services; an NCI code is required even though both ends are in the CO.~~

~~These facilities may be used as CFA for any type of circuit that the CLEC wishes. In some cases this offering used as CFA for a lower level circuit will cause middle CFA which is a problem for TIRKS and/or multiple CFAs for which there are only two fields on the ASR and TIRKS screens (requires REMARKS/NOTES to be used and manual design in the CPG).~~

~~2) A DS1 that has a digital switch termination on both ends.~~

~~This DS1 will be ordered via an ASR along with Operator Service trunks from a BellSouth end office switch to a BellSouth TOPS switch and will be processed in the same manner that customer purchased trunks and DS1s are handled today. They will be processed through the CAC flow.~~

- ~~The ACTL on the ASR will be the BellSouth end office switch CLLI code.~~
- ~~The TOPS switch CLLI will be the SECLOC.~~
- ~~The NCI code will be 04DS9.$$.~~
- ~~The CLLI codes on the ends of the facility will be the 11-character switch CLLI.~~

- ~~True bank codes will be used on both ends.~~
- ~~These facilities will carry a FAC USE code of HC.~~
- ~~Use an H in the fourth position of the subpath number.~~
- ~~The CUST END field should contain C.~~
- ~~ORD INTVL=0, ACC-ESS=Y, PIU=000.~~
- ~~Put the customer's CCNA in the CUSTOMER field.~~
- ~~The NC codes (NC1 on the combined trunk/facility ASR) that will be used are HC$7. The third position will indicate the usual SF/ESF/AMI/B8ZS options.~~

~~These facilities may be used as CFA for trunks between the two switches only and thus should not cause multiple or middle CFA problems.~~

E. Unbundled Dark Fiber (UDF)

BellSouth has unbundled fiber optic cabling similar to what we did in the old Dry Fiber service. Dark fiber will be sold four fibers at a time. It will always require a service inquiry for CCM and/or OSPE to handle. See the separate CCM methods and procedures for Unbundled Dark Fiber.

F. Unbundled Packet Services (UPS)-Fast Packet Ports

Unbundled Packet Port and Transport

CCM must be prepared to support requests for Unbundled Packet Services (UPS) - Fast Packet Cascade Ports and Unbundled Transports, and the interconnection of the two on the same order as follows:

An unbundled Cascade port and connection to a collocator XPOI.
An unbundled Cascade port and connection to a FlexServ DCS.
An unbundled Cascade port and connection to either an unbundled IOF or local loop.

Port Types

There are three UPS port types involved:

DS0 - This UPS port terminates in the 1/0 Hub DCS for the Cascade. In some instances the interconnection will be in a D-type channel bank that fronts the 1/0 Hub DCS.

DS1 - This UPS port terminates in a DSX1.

DS3 - This UPS port terminates in a DSX3.

Basic Applications

There are two basic applications for which requests involving UPS UNE will be issued. They are as follows:

1. UPS Port PLUS "cross connection" to existing transport. The transport can be shown in one of two ways.

   a) UPS port with existing unbundled transport. In this case, the customer has an existing unbundled transport (CFA = T0/T1/T3 TIE) going to a Collocated/CLEC POP or to an IEC POP with an unbundled Fast Packet port.

   b) UPS Port with existing unbundled hierarchical transport. In this case, the customer has a higher level service(T1 or T3 CFA transport) that is unbundled and that this

lower level service rides. The CFA will contain T1 or T3. An unbundled Fast Packet port also will be requested.

2. UPS port and new UNE transport - on the same order. In this case, the customer is requesting unbundled transport with an unbundled Fast Packet port. This type request will not have CFA (for transport).

No Stand Alone Ports

CCM is not to develop designs to support unbundled ports which are not connected to some form of transport to the customer (ALEC/CLEC/Flex, etc.). UPS port orders will always have some cross connections to CFA or some new transport on the same order (or termination in a Flex DCS).

CLCI Codes

New service code modifiers have been approved to identify Unbundled elements. The 5th character position modifier in the CKT ID will be "F" and the 6th position will be "U" to identify unbundled services.

Additional Information

For additional information and definition of UPS - UNE architecture and service, refer to CCM M&P for BROADBAND NETWORK SERVICES: Unbundled Packet Services - Fast Packet Ports Unbundled Network Elements, Issue 1, dated February 28, 1997.

G. Local service interconnection

See the separate CCM methods and procedures for local interconnection. Most CCMs have done a local interconnection under the two 1-way, and one 2-way trunk group architecture. Additional architectures are being developed.

H. Unbundled local switching, trunk port, DS1 DID

This service will be a customer purchased channelized service that terminates in a DS1 trunk port on a switch. It is the equivalent of a MegaLink channel service that terminates on a switch termination to be used primarily for DID trunks. The CCM will always receive a CSPS SI and must furnish a CLF ID back to the originator.

I. Unbundled local switching, trunk port, PRI ISDN

This service is the same as PATHLINK service. See the separate CCM methods and procedures for that service.

J. Unbundled loop concentration and Unbundled sub-loop concentration

This is a brand new service that we have never done before. Basically it is a customer purchased channelized facility with a mux on one end only. The mux is a DLC type bank that will allow the customer to concentrate unbundled loops onto the facility much in the same way BellSouth's OSPE concentrates POTS service onto our DLC systems. The mux (an RT device) can be placed in the CO (unbundled loop concentration) or at a BellSouth RT site (unbundled sub-loop concentration). This service is covered under separate CCM methods and procedures.

K. Unbundled Operator services

These services are included in other methods and procedures. The operator service of primary interest to the CCM will be 'branding/un-branding'. That will involve new trunk groups between BellSouth end office switches and the BellSouth TOPS machines. In some cases the CLEC must order a trunk group between end offices and the TOPS. These trunks may ride a digitally terminated DS1 the CLEC has ordered between the two switches or they may ride

a DS1 with muxing in both COs. The muxed DS1s (switch or d-bank are covered in paragraph D of this section under 'Unbundled Central Office Channelization'.

L. Unbundled digital cross-connect

This service is still being addressed and will not be developed until it is required that we do so.

M. Local Service Resale

BellSouth will also offer competitors the choice of completely reselling local service to customers. The CLEC will sell local service in his name to a customer. The CLEC will then purchase the local service from BellSouth. The directory listings will be in the name of the end user. The billing from BellSouth will be to the CLEC. The CLEC will bill the end user. It is transparent to the end user that physically the service is provided by BellSouth; as far as he is concerned he has service from another local service provider.

CLECs will be able to purchase the local service at a wholesale rate. Determinations will have to be made to what degree an CLEC will have access to BellSouth's ordering, billing, maintenance, and dispatch OSS systems.

Existing services that involve the CCM that will be resold will involve the CCM. It's just one customer buying it a wholesale rate from BST to be re-sold to another customer of the original customer. Most any service is eligible and selected combinations of UNEs are packaged back as resale also. Resale will always be billed from the CRIS system which may present some unique problems for the billing groups.

3.0 ARCHITECTURE

3.01 UNEs will generally be offered as end to end circuits in the same manner as our unbundled services are offered.

3.02 There are a few guiding principles that apply when unbundled elements are provisioned in order to determine what type of circuit ID will be applied to the entire circuit and thus how a circuit will be provisioned. The CCM will not have to do anything to make this happen since the service order will contain the correct circuit ID and PPI will do the rest.

When one end of a UNE circuit ties to a switch port, the switching service controls (switching, FR, CDS, etc.). This is true when only an unbundled loop is used, when only interoffice transport is used, or when both loop and interoffice transport are used with a switch port. An example would be a FR UNE circuit routing from the FR switch to the customer over interoffice transport and a local loop.

3.03 See the table that immediately follows for applicable NCI codes for the various UNE arrangements:

Unbundled NCI Table
($ is a wild card and can be any valid value)

Unbundled Service	@ DS0 collocation interface	@ DS0 non-collocation interface
Unbundled voice loop,2-wire analog (loop start, ground start, or reverse battery)	02QC3.OOD (loop start) 02QC3.OOB (ground start) 02QC3.RVO (reverse battery)	02LS2 (loop start) 02GS2 (ground start) 02RV2.T (reverse battery)
Unbundled voice loop, 4-wire analog (loop start or ground start)	04QC2.OOD (loop start) 04QC2.OOB (ground start)	04LS2 (loop start) 04GS2 (ground start)
Unbundled digital loop, 2-wire, basic rate ISDN capable	02QC5.OOS	02IS5
Unbundled digital loop, 4-wire, 2.4kb	04QC5.OOJ	04DU5.24
Unbundled digital loop, 4-wire, 4.8kb	04QC5.OOK	04DU5.48

Unbundled digital loop, 4-wire, 9.6kb	04QC5.OOL	04DU5.96
Unbundled digital loop, 4-wire, 19.2kb	04QC5.OOM	04DU5.19
Unbundled digital loop, 4-wire, 56kb	04QC5.OOP	04DU5.56
Unbundled digital loop, 4-wire, 64kb	04QC5.OOQ	04DU5.64
Unbundled loop, 2-wire, ADSL capable	02QB9.00A	02DU9.00A
Unbundled loop, 2-wire, HDSL capable	02QB9.00H	02DU9.00H
Unbundled loop, 4-wire, HDSL capable	04QB9.00H	04DU9.00H
Unbundled dry copper	??	02DC2
DS1	04QB9.11	04DS9.1S, 04DS9.15B
DS3	04QB6.11	04DS6.$$
STS1	04QB6.S1	04ST6.A

4.0 SERVICE INQUIRY/ORDER PROCESS

4.01 The Local Customer Service Center (LCSC) will initially process all orders for all UNE circuits. This is even true for specialized circuits such as FR that are normally handled by the DCSC, etc. The LCSC will receive the order from the customer, transform it into a local UNE order, and in some cases then pass it on to the specialized groups for processing before it makes its way to Network for provisioning.

4.02 Orders from customers for UNEs will contain the letters UNE in the first three positions of the PROJECT field on orders in the EXACT system.

4.03 See the table that follows immediately in these procedures for a listing of when a service inquiry is required and which vehicle for the SI will be used.

UNE vs. Service Inquiry requirement vs. CCM role cross-reference table
(for selected UNEs only)

Unbundled element	SI required when	SI vehicle	CCM role in this offering
Unbundled voice,2-wire analog (loop start, ground start, or reverse battery)	Quantity above limit	CSPS 'other' screen	normally flows through; CCM involved in PPI failures only
Unbundled voice, 4-wire analog (loop start or ground start)	Quantity above limit	CSPS 'other' screen	ditto
Unbundled digital, 2-wire, basic rate ISDN capable	Quantity above limit	paper	ditto
Unbundled digital, 4-wire, 56kb	Quantity above limit	CSPS '56kbps pp' screen	ditto
Unbundled digital, 4-wire, 64kb	Quantity above limit	CSPS '64kbps pp' screen	ditto
Unbundled digital, 2-wire, ADSL	Always	new paper	none
Unbundled digital, 2-wire, HDSL	Always	new paper	none
Unbundled digital, 4-wire, HDSL	Always	new paper	none
Unbundled digital, 4-wire, DS1	Quantity above limit	CSPS, 'DS1 special access' screen	normally flows through; CCM involved in PPI failures
Unbundled DS3	Always	Paper SI; see Appendix 3	normal DS3 provisioning processes with OSPE for loops
Unbundled sub-loop, voice, digital (56kb or 64kb), or ISDN, 2-wire or 4-wire	Always	new paper	none
~~Unbundled central office channelization, DS1 to DS0 (one-ended and two-ended)~~	~~Quantity above limit on one ended muxing; always required for two-ended muxing~~	~~CSPS 'DS1 special access' screen~~	~~normal CLF provisioning process; two ended is a new wrinkle requiring mux on both ends (in two COs)~~
~~Unbundled central office channelization, DS3 to DS1 (one-ended and two-ended)~~	~~Always~~	~~CSPS 'DS3 special access' screen~~	~~Ditto~~
Unbundled dark fiber	Always	paper	See UDF methods and procedures
Unbundled Packet Services (UPS)-Fast Packet Ports	Always	paper	see separate CCM FR and CDS methods and procedures and separate CCM information aid for unbundled fast packet ports
Local interconnection	Always for setup; orders for services follow their normal rules	upfront negotiation and planning; individual services on ASRs follow their normal rules	heavy involvement in both setup, ongoing monitoring, and augmentation. see CCM local interconnection methods and procedures for details.
Unbundled network interface device	?	?	None
Unbundled local switching (various line ports)	?	CSPS 'DID DOD AIDOD' screen	only to the extent of the transport they are connected to.
Unbundled local switching, trunk port, 4-wire basic rate ISDN	?	?	None

Unbundled element	SI required when	SI vehicle	CCM role in this offering
Unbundled local switching, trunk port, DS1 DID	Always	CSPS 'Megalink channel service' screen	Offered as BellSouth Channelized Trunks Service (BCTS); same as MegaLink channel service terminated on a DS1 switch port
Unbundled local switching, trunk port, PRI ISDN	Always	Primary Rate ISDN service paper SI	Same as for Primary Rate ISDN
Unbundled loop concentration, unbundled sub-loop concentration	Always	Paper SI	very detailed involvement; new service; see separate CCM methods and procedures
Unbundled operator services (trunk groups)	Never; via ASR	n/a	see CCM local interconnection methods and procedures
Unbundled digital cross-connect	?	?	not defined at this time
Local Service resale			No special involvement; existing services that involve the CCM that will be re-sold will involve the CCM in the normal manner.

5.0 TRUNKING PLANNING

No unique trunking planning is required to be covered in this document at this time.

6.0 FACILITY PLANNING

See Section 2 of these procedures for the facility planning details.

7.0 EQUIPMENT ENGINEERING AND PLANNING

No unique equipment engineering and planning is required to be covered in this document at this time.

8.0 PROVISIONING

8.01 UNE circuits will be designed using the normal PPI processes. ~~UNE channelized circuits will require SCS records to be passed to the CPG in the same manner as for any purchased channelized service.~~

8.02 ~~When a circuit gives CFA of the new unbundled channelization facility with muxing on both ends (in two CFAs), TIRKS will not be able to mechanically provision that circuit's design if it is a 'middle' CFA. The PPI process can only handle CFA on the A or Z end of a circuit and this design will have to be handled on an RMA basis. PPI will not be able to locate a design with middle CFA. The CPG will have to manually post this middle CFA and will have to contact the CCM for planning design selection.~~

9.0 TTS WORK

9.01 The PPI process for unbundled loops will make use of NC/NCI codes as well as the service code/modifier to drive the circuits to the proper allocation groups. The proper FEPSSVC and FEPS NC/NCI MAP entries are covered in the FEPSSVC.XLS document filed in BELS. The unbundled loops using service code LYFU require using their unique SEC NCI codes to drive them to the proper allocation group (VF, DIGU, ISDU, or IS06).

Appendix 3

Service Inquiry for Local Channel and Interoffice DS3 and STS1 services

SERVICE INQUIRY FOR TRANSPORT PRODUCTS
UNBUNDLED NETWORK ELEMENTS
(UNBUNDLED INTEROFFICE CHANNEL AND UNBUNDLED LOCAL CHANNEL)
POINT TO POINT DS3
POINT TO POINT STS1

DETAILED INSTRUCTIONS

Notes

1. Presently this SI is for point to point DS3 and STS1 DS1 transport UNEs. As other UNEs are 'offered' this form may be enhanced to accommodate those new UNEs or a web based inquiry process may be implemented for those and these UNEs.
2. The CRSG/Account team is the 'originator' of the SI within BellSouth and is who the term 'originator' means in this document. However, the CRSG/Account team will provide a blank copy of the SI form to the customer who will actually originate it to the CRSG/Account team.
3. Not all lines on the SI are listed in the instructions; some are self explanatory.
4. If customer termination locations do not have existing CLLI codes, the CRSG/Account team representative must obtain these codes from the Area CLLI coordinator and place them on the SI before passing it on for processing by other work groups.
5. The DS3 and STS1 UNEs have no standard interval; all are determined on an individual case basis by Network CCM.
6. A separate SI is required for each unique A and Z combination.
7. A separate SI is required for DS3s and STS1s even though they have the same A and Z combination; don't mix DS3s and STS1s on the same SI.
8. Facilities are NOT to be reserved by Network CCM.
9. Since these are always firm order SIs, Network CCM can give a specific ready date instead of an 'interval from firm order'.

Flow

1. Customer prepares LSR and SI and sends to his CRSG/Account team.
2. CRSG/Account team completes SI.
3. Network CCM replies to SI for UNEs and faxes back to CRSG/Account team originator.
4. CRSG/Account team forwards completed SI and LSR to the LCSC.
5. LCSC prepares service order(s).

Lines and Instructions

PART I - ORDERING SECTION

INQUIRY ONLY-this status is not allowed for UNE products. The SI must be a FIRM ORDER SI for new service.

FIRM ORDER-indicates that the customer is placing an order and that a service order will be written for this service. Network CCM will begin engineering and equipment procurement for any SI in this status that it processes.

UPDATE-indicates that this SI is an update to a previous SI.

CANCEL-indicates the customer is canceling a previous FIRM ORDER. If the customer cancels his firm order he may be liable for cancellation charges per his contract.

POINT TO POINT DS3 TRANSPORT/POINT TO POINT STS1 TRANSPORT-select the type of transport that is being ordered on this SI. Do not mix types on the same form.

Desired Due Date-enter the date the customer wants the service to be ready for service. There is no standard interval; the 'ready' date will be furnished by Network CCM on the response for any UNEs it processes.

Qty Desired-enter the quantity of DS3s or STS1s desired for this speed and this A and Z combination.

SI#_____ Page _____ of _____

SERVICE INQUIRY FOR TRANSPORT PRODUCTS
UNBUNDLED NETWORK ELEMENTS
(UNBUNDLED INTEROFFICE CHANNEL AND UNBUNDLED LOCAL CHANNEL)
POINT TO POINT DS3
POINT TO POINT STS1

Flow: Customer sends SI and LSR to CRSG/Account Team; CRSG/Account Team sends SI to NETWORK CCM; NETWORK CCM returns to CRSG/Account Team originator. Upon receipt of completed SI, CRSG/Account Team will then forward the completed SI and LSR to the LCSC to process the service order.

PART I - ORDERING SECTION

INQUIRY ONLY _N/A_ FIRM ORDER _____ UPDATE EX. SI _____ CANCEL _____

POINT TO POINT DS3 TRANSPORT _____ POINT TO POINT STS1 TRANSPORT_____

Date submitted to Network CCM _____

Date response needed_____

BellSouth CRSG/Account Team Rep.

Name_____
Title _____
Address _____
_____
Tel No _____
Fax No _____

Customer information

Company name_____
Contact name _____
Title _____
Department _____
Address _____
_____
Tel No_____
ACNA_____
PON_____

General Order information

Desired Due Date _____ Qty desired _____
NC Code _____ A-end NCI code _____ Z-end NCI Code _____
CFA(s)(if applicable) _____
_____

Complete for only one below (Unbundled Interoffice Channel or Unbundled Local Channel):

Unbundled Interoffice Transport

A-end of service (ACTL) CLLI Code _____ (at Collocation arrangement)
Collocation address _____

Z-end of service (SEC LOC) CLLI Code _____ (at Collocation arrangement)
Collocation address _____

Unbundled Local Transport

A-end of service (ACTL) CLLI code _____ (at Collocation location)
Collocation address _____

Z-end of service (SEC LOC) CLLI code _____ (at POP location)
POP address _____

REMARKS_____

SI#_____ Page _____ of _____

SERVICE INQUIRY FOR TRANSPORT PRODUCTS
UNBUNDLED NETWORK ELEMENTS
POINT TO POINT DS3 OR STS1

PART II - NETWORK CCM RESPONSE SECTION

Date received from CRSG/account team originator _____

Date response submitted to CRSG/account team originator _____

NETWORK CCM Contact name_____

Address_____

_____

Tel No_____ Fax No_____

Facilities and equipment available for:

_____ DS3s/STS1s on _____

_____ DS3s/STS1s on _____

_____ DS3s/STS1s on _____

(example: 2 DS3s / (STS1s) on October 15, 1999)

TEO#/Authorization# (if required) _____

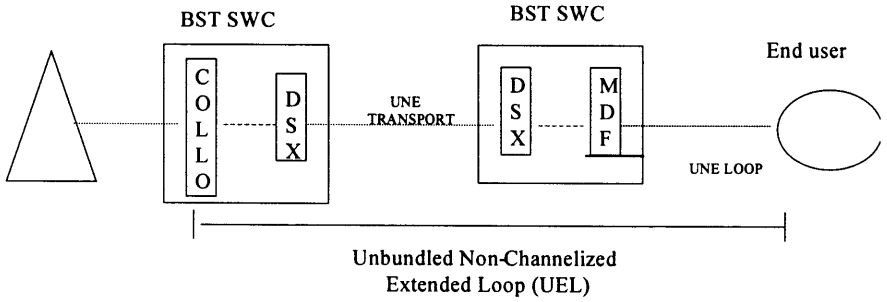
REMARKS_____

_____

_____

SECTION 1 – OVERVIEW

UNBUNDLED EXTENDED LOOP "SWITCH AS IS" is being offered as a result of a Regulatory ruling by a state PSC and is **NOT** a BST negotiated offering. This offering will be the conversion of certain existing CRIS MegaLink circuits or existing BOCABS non-channelized DS1circuits to an "Unbundled Extended Loop Switch As Is" circuit. These conversion circuits will be placed in CABS. The DS1's in BOCABS to be converted will already exist as PIU 0. This product ***will not be*** offered as a channelized or multiplexed service. The "switch-as-is" product will convert an existing circuits to UEL for billing purposes with no physical work at all. These "switch-as-is" circuits may have been installed as special access, private lines or some other tariffed offering. The PSA will be separate and apart from the CLEC's interconnection agreement.



CKL-1

CNC1X (DS1 Virtual Collocation)
PE1P1 & PE1PG (DS1 Physical Collocation)

CKL-2

USLXX
1L5XX
U1TF1
CCOEF or CCOSF
SOMAC
SOMAN/NRA NEG

SECTION 2 -- CBS OPERATIONS IMPACT

Affected Work Groups

The table below lists all work groups in CBS and whether the group is impacted.
For the work groups with an impact (indicated by a YES) a reference to the page
for information is noted.

CBS WORK GROUP	IMPACT YES/NO	PAGE #
ACCOUNTS DATABASE		
BILL MAILING		
~~BILLING CONTROL/VERIFICATION~~		
~~BILLING INTERFACE GATEWAY (BIG)~~		
~~BRU/EBRU/CEVU~~		
~~CLUB/EBS~~		
DATA ENTRY		
JOURNALS (NEW ACCOUNT CODES)	**Y**	**12-17**
~~MESSAGE INVESTIGATION CENTER~~		
MISCELLANEOUS REVENUE		
~~PAYMENT REMITTANCE OFFICE~~		
RATE DATABASE/RATE FILE	**Y**	**4-5**
~~SETTLEMENTS~~		
SERVICE ORDER/HOLD FILE	**Y**	**6-8**
~~USAGE~~		
OTHER (Specify)		

SECTION 3 -- IMPLEMENTATION SCHEDULE

Implementation Schedule

SECTION 4 -- SUPPORT CONTACTS

CBS Contacts

CBS contacts are provided in the table below.

Contact Information	Primary Contact	Secondary Contact
Name	Trudy Wooten	
Address	25/D2 600 N 19th Street	
Phone #	205 321-2174	
Beeper #	877 920-3709	
Manager Group	Susan Claytor	

IT Contact

The IT contact for this implementation is listed below.

Name	Phone #
N/A	

NOTE: IT should only be contacted if immediate assistance is needed, the problem is system specific, and the CBS contacts cannot be reached.

* * * DETAIL OF OTHER CHARGES AND CREDITS * * *

	BIP	AMOUNT
OCT 22 99 SO CO45K624 PON TESTUELGA001		
CIRCUIT NUMBER 38.HCFU.658632..SB PIU 0		
ONE-TIME CHARGE FOR		
OMC 1 ACCESS SERVICE - ORDER MODIFICATION		
PIU 0		
INTRASTATE - GA - EC 5192		26.21
CIRCUIT LOCATION 0001 PIU 0		
CHARGE FOR ACCESS SERVICE ADDED		
FROM OCT 22 99 THRU NOV 09 99		
CNC1X 1 BELLSOUTH EXPANDED INTERCONNECTION SERVICE		
(EIS) SPECIAL ACCESS - CROSS-CONNECT, PER DS1		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		4.80
CIRCUIT LOCATION 0002 PIU 0		
CHARGE FOR ACCESS SERVICE ADDED		
FROM OCT 22 99 THRU NOV 09 99		
USLXX 1 SPECIAL ACCESS SERVICE, UNBUNDLED DS1 LOOP		
FOR PROVISIONING, NO RATE		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		72.00
CHARGE FOR ACCESS SERVICE ADDED		
FROM OCT 22 99 THRU NOV 09 99		
U1TF1 1 UNBUNDLED INTEROFFICE TRANSPORT - DEDICATED		
DS1, FACILITY TERMINATION		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		49.51
CHARGE FOR ACCESS SERVICE ADDED		
FROM OCT 22 99 THRU NOV 09 99		
1L5XX 4 MILEAGE BANDS FROM 0 TO OVER 50, PER MILE		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		0.73
ONE-TIME CHARGE FOR		
USLXX 1 SPECIAL ACCESS SERVICE, UNBUNDLED DS1 LOOP		
FOR PROVISIONING, NO RATE		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		75.00
FIRST ONE-TIME CHARGE FOR		
SOMAC 1 SERVICE ORDER CHARGE FOR CLECS,		
MANUAL CHARGE PER CIRCUIT FOR		
UNBUNDLED NETWORK ELEMENTS		
PIU 0 PLU 100		
INTRASTATE - GA - EC 5192		58.43
NET EFFECT OF SO CO45K624 PON TESTUELGA001		

PER MONTH	FRACTIONAL	ONE-TIME	BILLED AMOUNT
TOTAL - GA - EC 5192			
211.74	127.04	159.64	286.68

NOV 04 99 SO CO9M3BL1 PON DISCTESTUELGA001

CIRCUIT NUMBER 38.HCFU.658632..SB PIU 0
CIRCUIT LOCATION 0001
CREDIT FOR ACCESS SERVICE REMOVED
FROM NOV 04 99 THRU NOV 09 99
CNC1X 1 BELLSOUTH EXPANDED INTERCONNECTION SERVICE
(EIS) SPECIAL ACCESS - CROSS-CONNECT, PER DS1
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 1.33CR
CHARGE TO MEET MINIMUM BILLING REQUIREMENT
FOR ACCESS SERVICE REMOVAL
SED 10-22-99, DISC 11-04-99, MIN PD 1 MTHS
DAYS BILLED 0 MTHS 13 DAYS
DAYS RMNG 0 MTHS 17 DAYS
CIRCUIT LOCATION 0001 (CONT'D)
CNC1X 1 BELLSOUTH EXPANDED INTERCONNECTION SERVICE
(EIS) SPECIAL ACCESS - CROSS-CONNECT, PER DS1
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 4.53
CIRCUIT LOCATION 0002 PIU 0
CREDIT FOR ACCESS SERVICE REMOVED
FROM NOV 04 99 THRU NOV 09 99
USLXX 1 SPECIAL ACCESS SERVICE, UNBUNDLED DS1 LOOP
FOR PROVISIONING, NO RATE
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 20.00CR
CHARGE TO MEET MINIMUM BILLING REQUIREMENT
FOR ACCESS SERVICE REMOVAL
SED 10-22-99, DISC 11-04-99, MIN PD 1 MTHS
DAYS BILLED 0 MTHS 13 DAYS
DAYS RMNG 0 MTHS 17 DAYS
USLXX 1 SPECIAL ACCESS SERVICE, UNBUNDLED DS1 LOOP
FOR PROVISIONING, NO RATE
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 68.00
CREDIT FOR ACCESS SERVICE REMOVED
FROM NOV 04 99 THRU NOV 09 99
U1TF1 1 UNBUNDLED INTEROFFICE TRANSPORT - DEDICATED
DS1, FACILITY TERMINATION
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 13.76CR
CHARGE TO MEET MINIMUM BILLING REQUIREMENT
FOR ACCESS SERVICE REMOVAL
SED 10-22-99, DISC 11-04-99, MIN PD 1 MTHS
DAYS BILLED 0 MTHS 13 DAYS
DAYS RMNG 0 MTHS 17 DAYS
U1TF1 1 UNBUNDLED INTEROFFICE TRANSPORT - DEDICATED
DS1, FACILITY TERMINATION
PIU 0 PLU 100

INTRASTATE - GA - EC 5192 46.76
CREDIT FOR ACCESS SERVICE REMOVED
FROM NOV 04 99 THRU NOV 09 99
1L5XX 4 MILEAGE BANDS FROM 0 TO OVER 50, PER MILE
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 0.20CR
CHARGE TO MEET MINIMUM BILLING REQUIREMENT
FOR ACCESS SERVICE REMOVAL
SED 10-22-99, DISC 11-04-99, MIN PD 1 MTHS
DAYS BILLED 0 MTHS 13 DAYS
DAYS RMNG 0 MTHS 17 DAYS
1L5XX 4 MILEAGE BANDS FROM 0 TO OVER 50, PER MILE
PIU 0 PLU 100
INTRASTATE - GA - EC 5192 0.69
NET EFFECT OF SO CO9M3BL1 PON DISCTESTUELGA001

PER MONTH	FRACTIONAL	ONE-TIME	BILLED AMOUNT
TOTAL - GA - EC 5192			
211.74CR	84.69	0.00	84.69

Date: October 1, 1999 **(Revision to RAL dated 9/28/99 – changes highlighted)**

To: Laurie Walls, BBI
Dottie Ike, RSOS

From: Derl Nelson

Subject: Rate Authorization Request – Espire (ACSI) Georgia

cc: Karen Fields, Michael Wong, Trudy Wooten, Paula Murphy, Jerry Latham, Nita Furlong, Shirley Smith, Shirley Abts

Please authorize the following Extended Loop and Collocation UNE rate elements for End-to-End test purposes for Espire (ACSI) in Georgia:

Customer: Espire (ACSI) in Georgia
ACNA: AVS
State(s): GA
USOC Effective Date: 8/18/99

Item	Nonrecurring Rate First	Nonrecurring Rate Additional	Monthly Rate	USOC	BCS
Unbundled Extended Loop – DS1	$75.00	$75.00	$120.00	USLXX	USLEL
Unbundled Extended Loop – DS1 Unbundled Interoffice Transport – Fixed	$0	$0	$82.52	U1TF1	USLEL
Unbundled Extended Loop – DS1 Unbundled Interoffice Transport – Per Mile	$0	$0	$.3068	1L5XX	USLEL
DS1 Cross-Connect - Virtual Collocation	$0	$0	$8.00	CNC1X	USLEL
DS1 Cross-Connect - Physical Collocation	$0	$0	$8.00	PE1P1	USLEL
Unbundled Network Elements (UNE), Service Order Manual Charge, per circuit	$58.43	$26.99	N/A	**SOMAC**	USLEL
UNE, Service Order Mechanized Charge, per circuit	$12.97	$11.27	N/A	**SOMXC**	USLEL
Unbundled Extended Loop – DS1 Order Coordination - Time Specific (per order)	**Nonrecurring Rate**		N/A	OCOSL	USLEL
	$34.52				
Do Not Dispatch	No Rated – Provisioning Only			DND	USLEL

Give me a call at 205-444-0541 if you need more information.

Thanks,

Derl

UNBUNDLED EXTENDED LOOP(UEL) SERVICE ORDER INFORMATION

SWITCH -AS -IS

Basic Class of Service	**USLEL**
DS1 Loop	**USLXX**
Interoffice Transport – Per Mile	**1L5XX**
Interoffice Transport Fixed	**U1TF1**
DS1 Cross-Connect – Virtual Collocation	**CNC1X**
DS1 Cross-Connect – Physical Collocation	**PE1P1**
DS1 POT BAY - Physical Collocation	**PE1PG**
Manuel Service Order Charge(per Circuit)	**SOMAC**
Mechanized Service Order Charge(Per Circuit)	**SOMXC**
Order Coordination Charge	**OCOSL**
B8ZS- EF	**CCOEF**
B8ZS - SF	**CCOSF**

BBI SOE---EXHIBIT 1
UEL CONVERSION SERVICE ORDER EXHIBITS
NON-CHANNELIZED DS1
VIRTUAL COLLOCATION

CRO MEGALINK ORDER NUMBER
RRSO MEGALINK ORDER NUMBER

---S&E
IG1 CLS ##.HCFU.123456.XX
/NC HC++/PIU 0/PLU 100
/CKR ABCD1234/SSP
I1 **USLEL** **(NEW BCS – UNBUNDLED UEL, DS1)**
SUB 1-NPA NXX (LSO of POP Address)
IG2 CKL 1-COLLOCATION POP
ADDR, CITY, STATE
/LSO NPA NXX/TAR ###,###
/NCI 04QB9.11/ZNEA
/ACTL #
/CFA #### T1TIE 1 CLECOLOCLLI (TIME SLOT ALWAYS = 1)
COCLLIXX/ZHNC
I1 CNC1X (COLLOC DS1 CROSS-CONNECT)
I1 UNECN/ZRCI CLEC NAME,
IMPCON NUMBER ON LSR,
IMPCON NAME ON LSR
SUB 2-NPA NXX (LSO of ENDUSER Address)
IG2 CKL 2-ENDUSER ADDR, CITY, STATE
/LSO NPA NXX/TAR ###,###
/NCI 04DU9.++/SN ENDUSER NAME
/LCON NAME, TEL NUM/LOC FLR
I1 USLXX/RUF CLS XX.XXXX.XXXXX..S? CKL1 **(DS1 LOOP/RUF Megalink Circuit ID)**
I# 1L5XX (INTEROFFICE MILEAGE PER MILE)
I1 U1TF1 **(INTEROFFICE TRANSPORT FIXED)**
I1 UNECN/ZRCI CLEC NAME,
IMPCON NUMBER ON LSR,
IMPCON NAME ON LSR
I1 SOMAC (MANUAL SERVICE ORDER CHARGE per circuit)
I1 CCOEF
I1 SOMAN/NRA NEG
---RMKS

NOTE: IF IMPCON NAME/NUMBER NOT ON LSR, USE INITIATOR NAME/NUMBER

BBI SOE---EXHIBIT 2
PHYSICAL COLLOCATION ACCESS UEL
NON-CHANNELIZED DS1
CONVERSION SERVICE ORDER EXAMPLE

CRO	D1234567	(MEGALINK BAN)
RRSO	D1234567	(MEGALINK BAN)

---S&E		
IG1	CLS ##.HCFU.123456.XX /NC HC++/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	(LSO POP Address)
IG2	CKL 1-COLLOCATION POP ADDR, CITY, STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	(TIME SLOT ALWAYS = 1)
I1	PE1P1	(DS1 PHYSICAL COLLOCATION)
I1	PE1PG	(DS1 POT BAY)
I1	UNECN/ZRCI CLEC NAME, IMPCON NUMBER ON LSR, IMPCON NAME ON LSR	
SUB	2-NPA NXX	(LSO ENDUSER ADDRESS)
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.++/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR	
I1	**USLXX/RUF CLS XX.XXXX.XXXXXX..S? CKL#**	**(DS1 LOOP)**
I#	1L5XX	(INTEROFFICE MILEAGE PER MILE)
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ZRCI CLEC NAME, IMPCON NUMBER ON LSR, IMPCON NAME ON LSR	
I1	CCOEF	
I1	SOMAC	(SERVICE ORDER CHARGE)
I1	SOMAN/NRA NEG	
---RMKS		

NOTE: IF IMPCON NAME/NUMBER NOT ON LSR, USE INITIATOR NAME/NUMBER

BBI SOE---EXHIBIT 3
NON-CHANNELIZED DS1
CRIS SERVICE ORDER EXAMPLE

RRSO	C1234567	(BOCABS ORDER NUMBER)
CRO	C1234567	(BOCABS ORDER NUMBER)
---LIST		
OLN		
OLA		
OSA		
OLOC		
OSIC		
OYPH		
---BILL		
IBNI		
IBN2		
IBA3		
IPO		
ICI		
ORESH		
TAR		
BTN		
IDCR		
ISS		
OBIR	CKL	
MAN		
ICIV		
---S&E		
01	CCOSF/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/SED XX-XX-XX /ZSER	(MEGALING CKT ID)
0G1	CKL 1- CLEC ADDRESS, CITY, ST /LOC/SN	
0#	1LDPA/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /SED XX-XX-XX/ZSER A1234 /WACD DO NOT DISCONNECT BILLING CONVERSION ONLY /RMKR (A) MILEAGE	
O1	RESCN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /ZRCI	
OG1	CKL 2-POP ADDRESS, CITY, ST /SN XXXXXX/RMKR (A) CFA T1TIE 81082 CLMBGAMT CLMGBGAMTWD1	
0#	1LNOA/CLS XX.XXXX.XXXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /XPOI CLMBGAMTWD1/ZNEA/ZSER A1234	
I1	SOMAN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX	

PRODUCT – UNE
Branded Name – Unbundled Extended Loop "Switch As Is"

PROCESS	USOC Y	USOC N	USAGE Y	USAGE N	COMMENTS
Rate Letter Required					Contract rate database
3910/3911					Contract Rate Database
Service Order Exhibits	Y				
CSR*					EXISTING
Product*					EXISTING
FIDs*					EXISTING
USOCs Add to DB2 Table	Y				
BCSs – Unique Components	Y				
Account Codes* with verbiage (For old or new)	Y				H1H-- NON-RECURRING H1G-- RECURRING
OCC Phrase Codes*					EXISTING
Adjust. Phrase Codes*					EXISTING
Revenue Tracking	Y				
Filed Interstate		N			
Filed Local	Y				
Filed Intrastate	Y				
SIG		N			
Termination Liability*		N			
Billing Guarantee		N			
Installation Charges**		N			
S.O. Cancellation chgs**					EXISTING
Credit Outages	Y				
SAWS*		N			
Ratcheting*		N			
Database Conversion*		N			
Revised Reports*					EXISTING
New Reports* -Retention Periods		N			
OCC Bill Verification					EXISTING
Holdfile Errors*					EXISTING
COPE Errors*					EXISTING
BIP Mileage Impacts		N			
End-to-End Test	Y				

*** These items require a CABS work request.**

**** These items may require a CABS work request if the terms and conditions vary from today's processing.**

3911 Information Form for CABS Rate File

DATE: 08/27/99 **Are there: NEW USOCS? YES CHANGES TO EXISTING? ____**

3911 ADDENDUM #: _____ **FILING/Request #: _____**

SERVICE TYPE: SP **PIU INDICATOR: 0**

HI CAP INDICATOR: H **PLU INDICATOR: 100**

PRE-PAYMENT TERM LIABILITY: _____%

Tariff/Contract Information:

Tariff/Contract	Jurisdiction(s)	States
Contract	Local/Intrastate	Georgia

EFFECTIVE DATE: 08/18/99

NOTES: At this time this is a special offering for the state of Georgia only. This product will be converting CRIS MegaLink circuits to "Unbundled Extended Loop Switch As Is" circuit in CABS.

IMPACTED USOCS: Account Codes: Intrastate—H1G H1H
Interstate---

USOC	BCS	Local Rec	Local Non-Rec
USLXX	USLEL		
1L5XX			
CNC1X			
PE1P1			
PE1PG			
U1TF1			
SOMAC			
SOMXC			
SOMAN			
OCOSL			
CCOEF			
CCOSF			

Are any USOCs for ETET? ___yes ____no (if yes, mark the USOCs above with a ''.**
Are any of the NEW USOCs valid for commitment plans? (if yes, commitment plan information must be provided including the CP identifier)

PREPARED BY: Trudy Wooten **ON: 08/27/99**

DUE DATE: ____/____/_____

DATE:9-7-99

FILE #914
FILE NAME:UNE-Unbundled Extented Loop
COMPLETED BY:M Rhymes

PAP#9908008

CATEGORY:UNE

Special Distribution/Contact List for this File Only Include phone #:

Michael Wong	**205-977-0460**
Trudy Wooten	**205-321-2174**

DISTRIBUTION LIST:

Blalock, Gay
Fuquay, Greg
Ivey, Judy
Johnson, Dale
Jones, Cookie
Potts, Tara
Proehl, Bob
Rhymes, Mike
Smith, Scott L
Thompson, Elliott

PRODUCT ACCOUNTING PLAN - REVENUE RULINGS

PAPD# **9908008** **PRODUCT NAME:** **Unbundled Extended Loop**

8/26/99

									H1H	5240.4100	*UNE-LOOPS-LO NON-RECURR
									H1G	5240.4100	*UNE-LOOPS-LO RECURRING

CC: PCU Project Manager, Michael Wong
Product Manager, Jerry Latham
BBI/LOB, Trudy Wooten
Operating Business Unit, Interconnect Services
Originating Business Unit: Consumer

*Existing Acct Co

IMPLEMENTATION GUIDE
RELEASE ITEM #:
DCP #: N/A
DESCRIPTION: UEL Switch as Is

UNBUNDLED EXTENDED LOOP
"SWITCH AS IS"
PRODUCT GUIDE REFERENCE

FILE#: 914

ITEM #	DESCRIPTION	A/C	New A/C or existing	TAX RULING	TAX SITUS	Notes
1.	UNE-CABS Loops-Local-Rec	H1G	EXISTING	Tax like H1G	See Notes	**
2.	UNE-Loops-Local-NR	H1H	EXISTING	Tax like H1H	See Notes	**
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

A/C OR ITEM#	ACCOUNT CLASS	DR7	RPT	FL Gross Receipts Exclusion	New Orleans 3% Franchise	Gloster MS Franchise	Maryville TN Franchise
H1G	5240.4100	Y	N	NX	N	N	N
H1H	5240.4100	Y	N	NR	N	N	N

ISSUE DATE: 08/30/99
REVISION DATE:

REVENUE TAX RULINGS FORM

FILE #: 914

REVENUE DIRECTORY TAX INDICATORS

A/C OR ITEM #	ACCOUNT CLASS	F E D	A - S	A - C	A - T	F - S	F - C	F - T	F - F	F - G	G - S	G - C	G - F	K - S	K - F	L - S	L - C	L - T	L - F	M - S	M - T	N - S	N - C	S - S	S - C	S - F	T - S	T - C	T - T	T - F
H1G	5240.4100	T	T	N	N	D	N	N	N	E	N	N	N	T	T	T	N	N	N	T	Q	N	N	N	N	N	A	A	T	N
H1H	5240.4100	N	N	N	N	D	N	N	N	N	N	N	N	N	N	T	N	N	N	T	Q	N	N	N	N	N	A	A	T	N

If the indicator under F (Franchise) is O refer to page 4.

KEY (Second Line):

S - STATE
C - COUNTY
F - FRANCHISE
G - GROSS RECEIPTS
T - CITY/TOWN

SEQUENCE XX TABLE

ACCOUNT CODE	CITY NAME	STATE	TAR
	N/A		

TAX CATEGORY

A/C or ITEM #	REVENUE TYPE	CHARGE TYPE	CUSTOMER TYPE	SERVICE TYPE	OTHER NOTES
H1G	LOCAL	REC	BUS	SWA	
H1H	LOCAL	NR	BUS	SWA	

FILE #: 914

NOTES
(from Page 2)

Tax Situs: The service is taxable at the end user's service address. If it is not possible to know the end user's service address TAR code, the co-location point at the BST facility will be used to tax the service.

USOC	**Account Code**
USLEL	**H1G - UNE Cabs Loop Local Rec** **H1H - UNE Loops Local NR**

NOTE: The CLLI code for the BST facility is used to look up the physical street address for the central office or tandem. The street address is used to determine the Taxing Area Responsibility (TAR) code in RSAG. The TAR code is used as the taxing location.

Reason for Ruling:

Unbundled Extended Loop is offered to Competitive Local Exchange Companies (CLEC) as a result of regulatory ruling by the State Public Service Commission (PSC), and not as a BST negotiated offering. These charges are for loops and interoffice transport (IOT) recurring and nonrecurring charges.

Unbundled extended loop is a combination of an unbundled DS1 loop and DS1 Interoffice Transport (IOT). The loop is from the end user location to that end user's serving wire center. At this point the loop is connected to the interoffice transport and transported over dedicated interoffice facilities back to the CLEC's co-location space at their serving wire center or placed onto a BST provided access facility.

Unbundled network elements (UNE) such as loops are taxable as local access charges.
The service allows the CLEC end users ability to access the local dialing network. The CLEC bills their end user and charges tax on the service.

With a valid resale certificate, the CLEC is generally exempt from most taxes. If the CLEC does not provide a certificate, the service is taxable for sales tax purposes in the states of Alabama, Florida, Kentucky, Louisiana, Mississippi and Tennessee under current statutes.

Account classsification 5240.4200 will be used to book the revenue.

REASON FOR RULING:

Standard LOB Issues – Rate File Group

1. New USOCs and BCS:
   - When will 3911 be received? **NO**
   - What rate structures will be used? **EXISTING**
   - Tariffed or contract rated or both? **CONTRACT**
   - Service Type? **LOCAL/UNE**
   - Jurisdictions? **INTRASTATE**
   - Will Bill Guarantee be applied? **NO**
   - PIU Type? **ZERO "0"**
   - Account codes? **H1G (REC)**
     H1H (NON-REC)
   - Will Short Interval Surcharge be applicable? (new BCS only): **NO**
   - Hi-cap? (new BCS only) **YES**
   - BCS Type? (new BCS only) **UNE**
   - BCS Category? (new BCS only)
   - What existing USOCs will be used with the new BCS? **USLXX, IL5XX, CNC1X, CCOEF, CCOSF, PE1P1, PE1PG, SOMAN**
   - What are the BCS (new USOCs only)? **U1TF1, OCOSL, SOMAC, SOMXC**
   - ~~Approximate volume of new entries?~~
   - Jurisdictions? **INTRASTATE/LOCAL**
   - ~~Proposed filing and effective dates?~~
   - Will any new FIDs be used? **NO**
   - Will any entries to the CP Plan table need to be made? **NO**

~~2. Change to existing USOCs~~
   - ~~What will change? (rates, structures, plans, zones?)~~
   - ~~Approximate volume of new entries?~~
   - ~~Tariffed or contract rated or both?~~
   - ~~Jurisdictions?~~
   - ~~Proposed filing and effective dates?~~
   - ~~Will rate changes need to be run?~~

~~3. Will any conversions, rate changes, BIP Mileage or or special programs be run to implement this? If so, provide all details including schedule, prerequisites, contracts and anticipated results.~~

4. End to End testing (see all issues under 1.), plus:
   - When will account be disconnected? When final ETET order disconnected-Mid Jan 2000

~~5. Usage Rating:~~
   - ~~New Usage Elements or changes/additions to existing rate elements? If so, a "Norm Form" is required with account codes.~~
   - ~~New Usage Rules? Need info on rule value and description~~
   - ~~Changes to existing rules?~~
   - ~~Tariff or contract or both?~~
   - ~~CABS or BIBS?~~
   - ~~Approximate volume of new entries?~~

- ~~Jurisdictions?~~
- ~~Proposed filing and effective dates?~~

6. ~~What is the proposed implementation schedule for all phases of this project?~~
7. ~~Will any existing reports be changed or need to be changed?~~
8. ~~Will any new reports be produced for Rate File personnel to review?~~
9. ~~Are any new errors related to rate file on any systems including but not limited to:~~
   - ~~Hold Files~~
   - ~~COPE Edits~~
   - ~~SOER Errors~~
   - ~~Rate change errors~~
   - ~~PICC report errors~~
10. If contract rated, who will provide rates on an ongoing basis and in what form? **CLEC database**
11. If contract rated, what volume of contracts is anticipated? **Very small**
12. ~~Will any programming changes have to be made to the PRODUCT Catalog GUI?~~
13. ~~Will any programming changes have to be made to the BIBS GUI?~~
14. ~~Will any programming changes be made to any rate change processes or programs?~~
15. ~~Will any changes be made to any existing conversion programs?~~
16. ~~What release (if applicable) is this item slotted for and will the changes to the rate file or rate changes be done before or after the release?~~
17. ~~What participation is expected for the rate file staff with respect to testing (UAT, system testing, string testing, GUI testing, etc.) ?~~

IMPLEMENTATION FEEDBACK

LOB Product SME: Trudy Wooten Date:

Please give me your feedback on the following form. Your candid responses will help me do a better job. In each of the questions below, please circle the number that best indicates your opinion.

1. Was the information in the document provided by this SME accurate and complete?
   1 2 3 4 5
   Poor Good Excellent

2. Was the level of detail sufficient to implement the product in your area?
   1 2 3 4 5
   Poor Good Excellent

3. Was the material organized so that you were able to easily find the information you needed?
   1 2 3 4 5
   Poor Good Excellent

4. Was this document received in a timely manner to allow review prior to implementation?
   1 2 3 4 5
   Poor Good Excellent

5. Was all verbal (walk-thru) and written communication clear, concise, accurate and easily comprehended?
   1 2 3 4 5
   Poor Good Excellent

6. How would you rate my role in the overall implementation of the product in your area?
   1 2 3 4 5
   Poor Good Excellent

7. How can I improve my role in the implementation of products?

   _____

   _____

8. Operations Group You Represent: _____

PLEASE RETURN THIS FEEDBACK FORM TO: Susan Claytor, 25D3, 600 North 19th Street, Birmingham, Alabama 35203

Return Date: _____

UEL (Unbundled Extended Loop)
Georgia Only
BOCRIS TO BOCABS
Existing BST MegaLink to UEL
Switch As Is

Methods and Procedures
DRAFT

December 15, 1999

Paula Murphy
404 927-7496

INTRODUCTION

PURPOSE

The UEL is a dedicated digital transmission facility that extends from BST's MDF (Main Distribution Frame) to a customer's premise.

BASIC SERVICE FEATURES

The UEL is an Unbundled Network Element (UNE) combination that consists of a unbundled DS1 loop and Unbundled Interoffice Transport (UIT) as the DS1 level. This product will not be channelized or multiplexed.

The loop is a dedicated digital transmission facility that extends from BST's MDF to a customer's premises. The UIT is a dedicated facility that connects BST central offices together. When these two elements are combined by BellSouth, the circuit will provide a transmission path from a CLEC POP serving wire center (SWC) all the way to an end user's premises at a DS1 level. The CLEC would not have to be collocated at the end user SWC in order to use this combo.

This product will be offered to the CLEC as a "switch-as-is" product that will convert an existing MEGALINK circuit into a UEL for billing purposes. These circuits will be offered as a result of a Regulatory ruling by a state PSC and not as a BST negotiated offering.

These "switch-as-is" circuits may have been installed as special access, private lines or some other tariffed offering. In addition, there may instances where the circuit was installed as a UNE combo but does not carry a Professional Services Combination Fee (PSCF) or glue charge. It may be necessary to add this charge to a previously installed UNE combo.

The UEL will be provisioned and disconnected as a single unit. BellSouth will make all the necessary cross-connects within the central offices that are needed to provide a contiguous circuit from the end user to the CLEC's POP SWC or BST access facility that serves the CLEC's POP.

BASIC SERVICE CAPABILITIES

The UEL will allow the end user to send and receive traffic that utilize DS1 technologies when it is connected to the proper packet/circuit switch within the CLEC's network. This facility will include a Network Interface Device (NID) at the customer's location for the purpose of connecting the loop to the customer's inside wire.

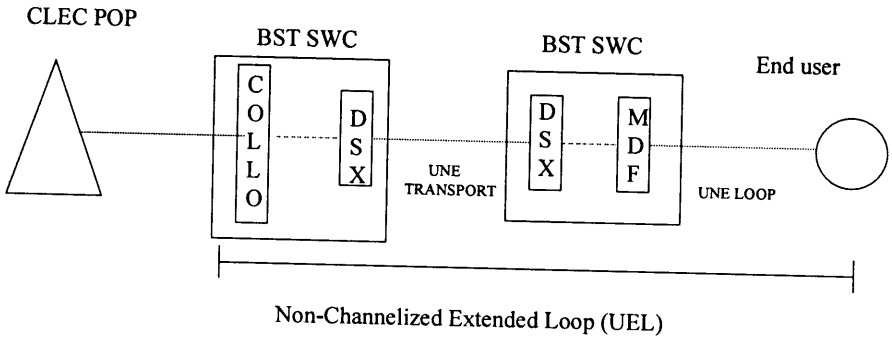
The UEL may only be used by the CLEC to provide local phone service to the end-user.

The CLEC will connect to the UEL at by either:

a. connecting to existing BellSouth access facilities through a CFA assignment, or
b. connecting to the CLEC's collocation space at their POP SWC

UNBUNDLED EXTENDED LOOP

The BST SWC and the end user are out of DIFFERENT SWC'S. The BST SWC and the end user will have 2 different LSO's and mileage will be needed.



GENERAL DESCRIPTION

The UEL components will offer the same maintenance and repair standards as BST's equivalent access facilities. These standards are outlined in BST's TR73600.

UEL will be a designed circuit and BST will provide a Design Layout Record (DLR). BST will issue a Firm Order Confirmation ("FOC") and a DLR to the ordering party within 5 business days after receipt of the LSR, upon review of and in response to the ordering party's LSR, to begin the provisioning process.

BST will work cooperatively to accommodate CLEC requests to perform Additional Cooperative Acceptance Testing (ACAT). BST will bill the CLEC normal EO135-type charges for the performance of these tests.

It is expected that the CLEC would test the circuit and if they isolate and identify a problem within the BST provided loop, they would report any repair issues to BST for resolution. At that point, BST will perform the tests and work required to put the loop into proper working condition. If an outside dispatch is required BST will bill the CLEC for the time and material required to verify the loops working status (if no repair problem on the loop actually existed).

BST will perform these repair functions during normal work hours (e.g. 8 am to 5 p.m. local time). If the CLEC requests that BST repair a trouble after normal working hours, the CLEC will be billed the appropriate overtime charges associated with this type request.

For the "switch-as-is" circuits, BST would continue to perform any monitoring, testing and/or repair activities that may be inherent to the circuit due to the fact that it was provisioned as something other than a UNE. As an example, if the circuit was originally installed as special access, it might be routed through various network monitoring equipment and contain alarms, etc.. If so, then BST will continue to perform these activities on those circuits where we are recovering the PSCF or Glue Charge.

BST will perform order coordination (OC) activities associated with an existing circuit that requires a coordinated conversion. In these cases, BST will coordinate the "turn-up" of the new circuit; the use of Remote Call Forwarding (if needed); and disconnect orders in order to minimize the disruption of an existing circuit. BST will not perform these activities on new circuits that do not require a coordinated conversion.

BST will perform the OC activities, at is discretion, on the due date. BST will inform the CLEC of the designated conversion time no later than 48 hours in advance of the conversion. This activity will be included in the price of the loop. Overtime rates apply for work outside of 8:00 am to 5:00 p.m. local time.

If the CLEC's end user has existing service with BST that utilizes a DS1 quality loop, and wants to change local service providers, BST will attempt to reuse the end user's existing loop.

BST will not dispatch solely for the purpose of tagging the loop portion of the UEL circuit. If a dispatch is needed for "turn-up" and/or testing of the circuit during the provisioning process, BST will tag the loop at that time. If a the UEL circuit is a "switch-as-is" type order, whereby, no physical work or dispatch is needed to provision the circuit, then BST will tag the loop during the next repair or maintenance request that requires a BST dispatch to the customer premises.

SERVICE INFORMATION

Reason for Issuance	To provide the necessary information needed for the LCSC Service Rep to be able to process service order correctly for this Product.
Service Restrictions	Assume no SIG applies for dedicated UNE's Assume no state-specific missed appointment credits SAW does not apply Billing Guarantees do not apply Blocking Performance reports – NONE
Minimum Bill Requirements	One Month
Manual Coordination	Manual coordination is included in the 1 time non-recurring charge.
Time Specific	Time Specific **DOES NOT** apply to this Product at this time.
FDT	900P (On ALL service orders, D and C)
Overtime Rates	Overtime rates apply for work outside of 08:00am and 05:00pm Local Time.
Expedites	Expedite charges will apply for shorter intervals requested by the CLEC. When the **DDD** field on the LSR is four days or less, and the **EXP** field on the LSR is not populated, the service order will be issued with the standard interval. When the **DDD** field on the LSR is four days or less and the **EXP** field on the LSR is populated, the service order will be issued with the standard interval and the **RTG EXPD** FID will be populated on the service order in the Unfielded Ident Section. If the expedited Due Date is not available, the Service Rep **MUST** remove the **RTG EXPD** FID from the service order.
Service Inquiry	Service Inquiry not needed for this Product.
LNP	**DOES NOT** apply to this Product.
SOMAC	If CLEC sends LSR to the LCSC via Fax Server, Courier Service, or U.S. Mail, then the Service Rep must add the USOC **SOMAC** in the S&E section of the service order. These USOC **SOMAC** is the Unbundled Network Elements (UNE), Service Order Manual Charge, per Circuit. If the CLEC has requested 5 UEL loops, then SOMAC will be populated at the CKL 1 location for each Circuit Id Number.

SERVICE INFORMATION (CONTINUED)

SOMXC

If CLEC sends LSR to the LCSC via mechanization, then the USOC **SOMXC** must be in the S&E section of the service order.

NOTE: SOMAC and SOMXC must not be the first entry of the S&E section of the service order.

SOMAN/SOMEC

The Service Rep must add SOMAN or SOMEC in the service order and waive the charges.

Example:

If Service Rep has populated the service order with **SOMAC,** then the Service Rep would add **I1 SOMAN/BI WNR.**

If Service Rep has populated the service order with **SOMEC,** then the Service Rep would add **I1 SOMXC/BI WNR.**

Due Date Intervals

Standard Intervals apply depending on the number of Circuits being requested. The Due Date starts upon receipt of a **CLEAN** LSR from the CLEC.

Dispatch to Station

BST will not dispatch a technician to the field to TAG with New Circuit Id Number. The new Circuit Id Number will be tagged when the technician is dispatched to the station on a maintenance trouble.

SERVICE ORDER ISSUANCE

Preconditioning / Screening Service Request

When placing an order with BellSouth, the CLEC is responsible for completing and submitting the following forms:

Local Service Request	(LSR)
End User Information Form	(EU)
Loop Service	(LS)

The CLEC will send the request to the LCSC via Fax Server, Courier Service or U. S. Mail. The Service Rep will validate for accuracy and will follow standard prcoedures for service order issuance.

The CLEC may order this product via Mechanization at a later date.

REUSE OF FACILITIES

UEL Loop service **MUST** be CRO'd with the service order to disconnect the end users MEGALINK from BellSouth. When the end user requests the Facilities from the disconnect order **MUST BE USED** on the UEL Loop service order. Reuse of facilities FID's **RRSO, RUF, CRO,** etc. are required on the service order.

BST will attempt to reuse the end users's existing Megalink facilities.

SPO CODES

SPO CODES

First Character

M Is the first character on adds or rearrangements.
N Is the first character on disconnects.

Second Character

F ALWAYS

Third Character

X ALWAYS

Fourth or Fifth Character

This is the number of circuits being installed or disconnected.

DOE Processing Steps for Disconnect of Resale Megalink for Conversion to Unbundled Extended Loop

1. Go to DOE Entry Screen.
2. Negotiation type D.
3. Next screen presented in negotiation sequence is the **Disconnect Screen**.
   On this screen input disconnect reason **CC** (Reseller to Facility Based CLEC) *
   Note: On disconnect of Megalink ETET circuit DOE would not accept CC disconnect reason code, received error code. In investigation of error, it was discovered that CC was not validated in DOE even though it is valid in SOER documentation. Presented this finding to the team for resolution.

Overtype existing billing fields (BN, BA and PO) if the final bill will be sent to the current address. You only have to overtype the first character of each line;
DOE will map entire address to order. If final bill is to be sent to a different address all the information will have to be input on this screen.

4. Next screen is **Credit Screen**.
   Overtype CI (Credit information) with any changes. If it is to remain the same you will need to overtype only the first character of the information. DOE will map to order.
5. PF5 for **Support Screen**.
   Input Control Section information (CTL), the appropriate fields for this section of the service order are the WCO, SLSN name and CTN.
   Input SOMAN USOC for billing in the S&E section of the service order.
   Once all the above entries have been processed to the order, go to the Command line and input **CL1** for **Close 1 Screen.**
6. Next screen is **Close 1 Screen**.
   Input SPO, EAC, CRO order number and RRSO in Unfielded Identification section.
7. Next screen is **Close 2 Screen.**
   Input ZCBR, ACC name and any additional remarks if necessary.
   Overtype system request code with **RG** and routing code with **FMD.**
   Generate order into system or send to Held Negotiation status, whichever is appropriate.

UEL Loop MATRIX

CLEC Interface at Collocation	NC	NCI at CLEC	SECNCI at End User
Collocation DS1 Interface T1TIE CFA must be provided	HC - - AMI - SF	04QB9.11	04DU9.BN AMI - SF
Collocation DS1 Interface T1TIE CFA must be provided	HCD – AMI – ESF	04QB9.11	04DU9.1KN AMI - ESF
Collocation DS1 Interface T1TIE CFA must be provided	HCZ – B8ZS - SF	04QB9.11	04DU9.DN B8ZS - SF
Collocation DS1 Interface T1TIE CFA must be provided	HCE – B8ZS - ESF	04QB9.11	04DU9.1SN B8ZS - ESF

USOC's at CKL 1 Location

ZNHC must be floated after the CFA information.

PLU 100

PIU 0

I1	**USLEL**	**(Basic Class of Service)**
I1	**CNC1X**	**(DS1 Cross Connect – Virtual)**
I1	**PE1P1**	**(DS1 Cross Connect – Physical)**
I1	**PE1PG**	**(DS1 Pat Bay – Physical)**
I1	**SOMAC**	**(Required for every CKL 1)**

USOC's at CKL 2 Location

I1	**USLXX**	**(DS1 Loop)**
/RUF	**CLS XX.DHDC.XXXXXX..SB**	**(MegaLink Circuit Id Number from "D" order)**
	CLS XX.DHDG.XXXXXX..SB	**(MegaLink Circuit Id Number from "D" order)**
IX	**1L5XX**	**(Mileage from BST SWC to End User) Interoffice Transport per Mile**
I1	**CCOEF**	**B8ZS -- EF (Extended Frame)**
I1	**CCOSF**	**B8ZS – SF (Super Frame)**
I1	**U1TF1**	**(Interoffice Transport – Fixed)**

Circuit Id Number

EXAMPLE: 38.HCFU.123456..SB (Work with EXACT Programmer to get programmed to change from HCFS to HCFU) PAULA

UEL Service Order Exhibits

EXHIBIT 1A
LCSC Service Order Exhibits
Physical Collocation / HC-- AMI - SF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials $,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX	XXX = Three Character ACNA of CLEC
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	
RRSO	(D Order Number of MegaLink)	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-** DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 1A
LCSC Service Order Exhibits
Physical Collocation / HC-- AMI - SF
Non – Channelized

---S&E		
IG1	CLS ##.HCFU.123456.XX /NC HC--/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**PE1P1**	**(DS1 PHYSICAL COLLOCATION)**
I1	**PE1PG**	**(DS1 POT BAY)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.BN/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR	
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB**	**CKL 1 (DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOSF**	**(Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	SOMAN/NRA NEG	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 1B
LCSC Service Order Exhibits
Virtual Collocation / HC-- AMI - SF
Non – Channelized

IDENT SECTION

ZRTI $,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials
LAT 438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO (D Order Number of MegaLink)
SPO ****
ADSR
FDT 900P
RRSO (D Order Number of MegaLink)

LIST SECTION

ACN CLEC Name
ACA 1-1324 Veterans Pkwy (Address of ACTL)
ACTL 1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 1B
LCSC Service Order Exhibits
Virtual Collocation / HC-- AMI - SF
Non – Channelized

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HC- -/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA/ACTL #	
	/CFA #### T1TIE **1** CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**CNC1X**	**(COLLOCATION DS1 CROSS-CONNECT)**
I1	UNECN/ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.BN/SN ENDUSER NAME /LCON NAME, TEL NUM/LOC FLR	
	/RUF CLS XX.XXXXXX.XX..SB CKL 1	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOSF**	**(Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	**SOMAN/NRA NEG**	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits

EXHIBIT 2A
LCSC Service Order Exhibits
Physical Collocation / HCD- AMI - ESF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials $,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX	XXX = Three Character ACNA of CLEC
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	
RRSO	(D Order Number of MegaLink)	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-** DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 2A
LCSC Service Order Exhibits
Physical Collocation / HCD- AMI - ESF
Non – Channelized

---S&E		
IG1	CLS ##.HCFU.123456.XX /NC HCD--/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**PE1P1**	**(DS1 PHYSICAL COLLOCATION)**
I1	**PE1PG**	**(DS1 POT BAY)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.1KN/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR	
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB CKL 1**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOEF**	**(Extended Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	SOMAN/NRA NEG	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 2B
LCSC Service Order Exhibits
Virtual Collocation / HCD- AMI - ESF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials $,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX XXX = Three Character ACNA of CLEC	
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	
RRSO	(D Order Number of MegaLink)	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-** DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 2B
LCSC Service Order Exhibits
Virtual Collocation / HCD- AMI - ESF
Non – Channelized

---S&E		
IG1	CLS ##.HCFU.123456.XX /NC HCD -/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA/ACTL # /CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**CNC1X**	**(COLLOCATION DS1 CROSS-CONNECT)**
I1	UNECN/ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.1KN/SN ENDUSER NAME /LCON NAME, TEL NUM/LOC FLR **/RUF CLS XX.XXXXXX.XX..SB CKL 1**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOEF**	**(Extended Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	**SOMAN/NRA NEG**	**(This will be removed from service order after SOER Edit has been fixed.)**
---RMKS		

UEL Service Order Exhibits

EXHIBIT 3A
LCSC Service Order Exhibits
Physical Collocation / HCZ- B8ZS - SF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials	
	$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX	XXX = Three Character ACNA of CLEC
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	
RRSO	(D Order Number of MegaLink)	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 3A
LCSC Service Order Exhibits
Physical Collocation / HCZ- B8ZS - SF
Non – Channelized

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HCZ-/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**PE1P1**	**(DS1 PHYSICAL COLLOCATION)**
I1	**PE1PG**	**(DS1 POT BAY)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.DN/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR	
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB**	**CKL 1 (DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOSF**	**(Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	SOMAN/NRA NEG	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 3B
LCSC Service Order Exhibits
Virtual Collocation / HCZ- B8ZS - SF
Non – Channelized

IDENT SECTION

ZRTI	$,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials	
	$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials	
LAT	438/ACNA XXX XXX = Three Character ACNA of CLEC	
CRO	(D Order Number of MegaLink)	
SPO	****	
ADSR		
FDT	900P	
RRSO	(D Order Number of MegaLink)	

LIST SECTION

ACN	CLEC Name	
ACA	1-1324 Veterans Pkwy (Address of ACTL)	
ACTL	1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)	

CTL SECTION

SID	**-**-**/LAM **-**-**	
	DLRD **-**-**	
RID	**-**-**/DVA **-**-**	
WOT	**-**-**/FCD **-**-**	
PTD	**-**-**	
WCO	XXX/OCO XXX	
ECO	XXX	
DSG	Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243	Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP	Michael Wong	IMPCON Name on LSR
SLSN	Pmurphy/CTN 404 927-7496	Service Name and CBR Telephone Number

BILL SECTION

IPON	PON Number from LSR	
IMAN	UXXXX	First Character is always U XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 3B
LCSC Service Order Exhibits
Virtual Collocation / HCZ- B8ZS - SF
Non – Channelized

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HCZ -/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA/ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**CNC1X**	**(COLLOCATION DS1 CROSS-CONNECT)**
I1	UNECN/ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.DN/SN ENDUSER NAME /LCON NAME, TEL NUM/LOC FLR	
	/RUF CLS XX.XXXXXX.XX..SB	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB CKL 1**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOSF**	**(Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	**SOMAN/NRA NEG**	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits

EXHIBIT 4A
LCSC Service Order Exhibits
Physical Collocation / HCE- B8ZS - ESF
Non – Channelized

IDENT SECTION

ZRTI $,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
$,QS, 800 872-3116,XX,770986 (Atlanta LCSC) XX = Service Rep's Initials
LAT 438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO (D Order Number of MegaLink)
SPO ****
ADSR
FDT 900P
RRSO (D Order Number of MegaLink)

LIST SECTION

ACN CLEC Name
ACA 1-1324 Veterans Pkwy (Address of ACTL)
ACTL 1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

SID **-**-**/LAM **-**-**
DLRD **-**-**
RID **-**-**/DVA **-**-**
WOT **-**-**/FCD **-**-**
PTD **-**-**
WCO XXX/OCO XXX
ECO XXX
DSG Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243 — Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP Michael Wong — IMPCON Name on LSR
SLSN Pmurphy/CTN 404 927-7496 — Service Name and CBR Telephone Number

BILL SECTION

IPON PON Number from LSR
IMAN UXXXX — First Character is always U, XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 4A
LCSC Service Order Exhibits
Physical Collocation / HCE- B8ZS - ESF
Non – Channelized

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HCE-/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA//ACTL #	
	/CFA #### T1TIE 1 CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**PE1P1**	**(DS1 PHYSICAL COLLOCATION)**
I1	**PE1PG**	**(DS1 POT BAY)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.1SN/DN/SN ENDUSER NAME /LCON NAME, TEL NUMBER/LOC FLR	
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB CKL 1**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOEF**	**(Extended Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	SOMAN/NRA NEG	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

UEL Service Order Exhibits (Continued)

EXHIBIT 4B
LCSC Service Order Exhibits
Virtual Collocation / HCE B8ZS - ESF
Non – Channelized

IDENT SECTION

ZRTI $,QS, 800 773-4967,XX,205321 (Birmingham LCSC) XX = Service Rep's Initials
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LAT 438/ACNA XXX XXX = Three Character ACNA of CLEC
CRO (D Order Number of MegaLink)
SPO ****
ADSR
FDT 900P
RRSO (D Order Number of MegaLink)

LIST SECTION

ACN CLEC Name
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ACTL 1-CLMBGAMTWD1 (11 Character CLLI Code of CLEC ACTL)

CTL SECTION

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DLRD **-**-**
RID **-**-**/DVA **-**-**
WOT **-**-**/FCD **-**-**
PTD **-**-**
WCO XXX/OCO XXX
ECO XXX
DSG Michael Wong, 205 977-0460, 3535 Colonnade Pkwy, Rm E3A Birmingham, AL 35243 — Name of DSGCON on LSR, DSGCON Street Address, Room Number, City State and Zip Code
IMP Michael Wong — IMPCON Name on LSR
SLSN Pmurphy/CTN 404 927-7496 — Service Name and CBR Telephone Number

BILL SECTION

IPON PON Number from LSR
IMAN UXXXX — First Character is always U
XXXX = AECN

UEL Service Order Exhibits (Continued)

EXHIBIT 4B
LCSC Service Order Exhibits
Virtual Collocation / HCE- B8ZS - ESF
Non – Channelized

---S&E

IG1	CLS ##.HCFU.123456.XX /NC HCE -/PIU 0/PLU 100 /CKR ABCD1234/SSP	
I1	**USLEL**	**(NEW BCS – UNBUNDLED UEL, DS1)**
SUB	1-NPA NXX	**(LSO of BST SWC)**
IG2	CKL 1-POP ADDR, CITY STATE/LSO NPA NXX /TAR ###,###/NCI 04QB9.11 /ZNEA/ACTL #	
	/CFA #### T1TIE **1** CLECOLOCLLI COCLLIXX/ZHNC	**(TIME SLOT ALWAYS = 1)**
I1	**CNC1X**	**(COLLOCATION DS1 CROSS-CONNECT)**
I1	UNECN/ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
SUB	2-NPA NXX	**(LSO of End User)**
IG2	CKL 2-ENDUSER ADDR, CITY, STATE /LSO NPA NXX/TAR ###,### /NCI 04DU9.1SN/SN ENDUSER NAME /LCON NAME, TEL NUM/LOC FLR **/RUF CLS XX.XXXXXX.XX..SB (DS1 LOOP/RUF is MegaLink Ciruit ID From "D" Order)**	
I1	**USLXX/RUF CLS XX.XXXXXX.XX..SB CKL 1**	**(DS1 LOOP/RUF is MegaLink Circuit ID From "D" order)**
I#	**1L5XX**	**(INTEROFFICE MILEAGE PER MILE)**
I1	**U1TF1**	**(INTEROFFICE TRANSPORT FIXED)**
I1	UNECN/ ZRCI CLEC NAME, IMPCON TELEPHONE NUMBER ON LSR, IMPCON NAME ON LSR If this information is not provided on the LSR, then use: INITATOR'S TELEPHONE NUMBER ON LSR, INITATOR'S NAME ON LSR	
I1	**CCOEF**	**(Extended Superframe)**
I1	**SOMAC**	**(SERVICE ORDER CHARGE)**
I1	**SOMAN/NRA NEG**	**(This will be removed from service order after SOER Edit has been fixed.)**

---RMKS

EXHIBIT 5
MEGALINK
CRIS SERVICE ORDER EXAMPLE

RRSO	C1234567	(BOCABS ORDER NUMBER)
CRO	C1234567	(BOCABS ORDER NUMBER)

---LIST
OLN
OLA
OSA
OLOC
OSIC
OYPH

---BILL
IBNI
IBN2
IBA3
IPO
ICI
ORESH
TAR
BTN
IDCR
ISS
OBIR CKL
MAN
ICIV

---S&E

01	CCOSF/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/SED XX-XX-XX /ZSER	**(MEGALINK CKT ID)**
0G1	CKL 1- CLEC ADDRESS, CITY, ST /LOC/SN	
0#	1LDPA/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /SED XX-XX-XX/ZSER A1234 **/WACD Do Not Disconnect Billing Conversion Only** /RMKR (A) MILEAGE	
O1	RESCN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /ZRCI	
OG1	CKL 2-POP ADDRESS, CITY, ST /SN XXXXXX/RMKR (A) CFA T1TIE 81082 CLMBGAMT CLMGBGAMTWD1	
0#	1LNOA/CLS XX.XXXX.XXXXXXX..XX /LSO NPA NXX/TAR XXX,XXX /XPOI CLMBGAMTWD1/ZNEA/ZSER A1234	
I1	SOMAN/CLS XX.XXXX.XXXXXX..XX /LSO NPA NXX	

Glossary of Terms

USLEL	Basic Class of Service for Unbundled Extended Loop (UEL)
CNC1X	DS1 Collocation Cross Connect USOC
USLXX	DS1 Loop
U1TF1	Interoffice Transport Fixed
1L5XX	Interoffice Mileage
SOMAC	Service Order Manual Charge per Circuit Id Number
SOMXC	Service Order Mechanized Charge per Circuit Id Number
PE1PG	DS1 Pot Bay
PE1P1	DS1 Physicial Collocation
CCOEF	B8ZS – EF (Extended Superframe)
CCOSF	B8ZS- SF (Superframe)

Unbundled Dedicated Transport - Combos
Service Description
January 24, 2000

Issue 2

Table of Contents

I. Market Service Description

Background:
Unbundled Network Elements (UNEs) were mandated by the U.S. Congress (1996 Telecom Act) in order to promote local telecommunications competition. The FCC through orders have defined UNEs and their uses. In order to qualify to purchase a UNE, the Competitive Local Exchange Company (CLEC) must provide and use the UNE for exchange and exchange access as well as collocate. Exchange and Exchange Access includes local, intraLATA toll, and transit traffic. Transit is defined as Switched Access traffic which utilizes BST's network to access another' network and includes CLEC to CLEC traffic, CLEC to Independent Company traffic, and CLEC to Interexchange Carrier traffic. It is the CLEC's responsibility to interconnect UNEs and UNE combinations in order to provide its services. BST cannot restrict the services offered utilizing UNEs. Once purchased any telecommunications service, except enhanced services, can ride a UNE. BST has not connected UNEs, which are offered via Interconnection Agreement, unless a separate agreement is finalized. **Now, the Third FCC Order , a.k.a. 319 Remand, is being interpreted as allowing CLECs to have UNE combinations where they exist within BST's network. This means that many more UNE combinations will be offered in the future. As the combinations become known, they will be added to this document.**

UNEs can be used by a CLEC (1) to build its network and/or (2) for Local Interconnection. Local Interconnection is the interconnection of BST's network and the CLEC network at any technically feasible point.

Dedicated Transport should be provisioned using the following rules:
RULE 1: When pricing all UNE combinations, the combination will be treated as an end to end service.
Rule 2: BST is obligated to provide UNE combinations only where facilities exist within the network.

A. Basic Service Features:

By definition Dedicated Transport is dedicated to a single customer. Dedicated Transport is a point to point service consisting of four possible components: interoffice channel, local channel, loops, and channelization.

(1) Definition: An Interoffice Channel **provides a dedicated point to point transmission path, and it's associated electronics, between requesting CLEC's or BST wire centers or switches.**

(2) Definition: Local Channel **is the dedicated point to point transmission path and the associated electronics between the CLEC's Point of Presence (POP) and the POP's Serving Wire Center.**

(3) Definition: Channelization **is the function performed when a higher level facility is separated into lower level services, e.g. DS3 to DS1s or DS1 to DS0s.** The facility is said to be channelized. This can be accomplished through the use of a multiplexer or a Digital Cross-connect System (DCS). Once the basic channelization system has been installed, channels can be activated all at once or on an as-needed basis. Like the tariffed service, this service is available where available (See NECA 4). The figure below shows an example of the use of a multiplexer.

FIGURE 1

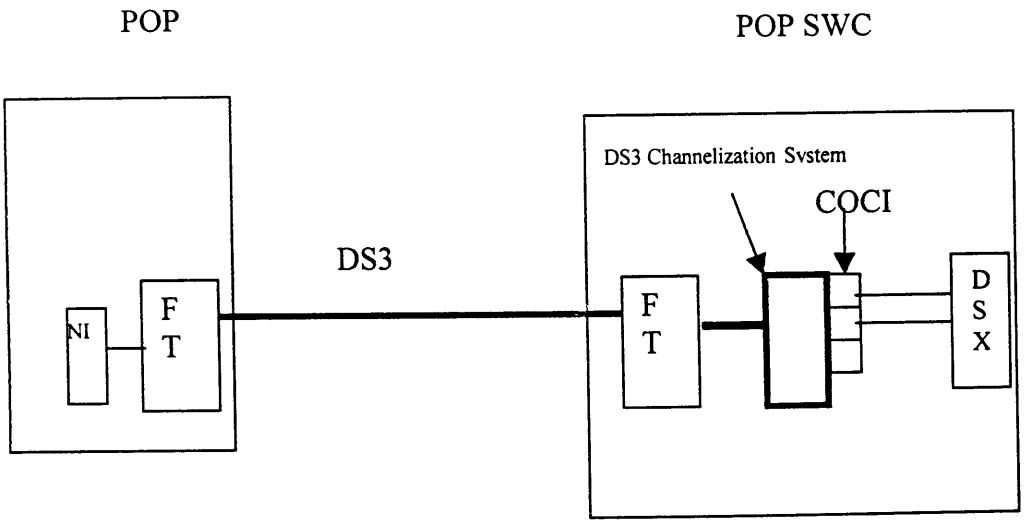


Figure 1 shows a DS3 Local Channel being channelized into DS1 interfaces through the use of a DS3 Channelization System (multiplexer) and Central Office Channel Interfaces(COCI).

Both the Local Channel and the Interoffice Channel can be channelized through the use of a multiplexing device. In this arrangement the multiplexer can be on either end of the facility depending on the customer's needs.

(4) Definition: **A Loop is the dedicated point to point transmission path and the associated electronics between the end user's premises and the end user's serving wire center.**

A. *Basic Service Capabilities:*

Unbundled Dedicated Transport will be offered as dedicated transport at multiple band-widths.

NOTE: Figures correlating to the following matrices are shown in the Network Description, Section II. A. 4.

Group 1 & Private Lines

GROUP 1 non-channelized combos

	Local Channel	Mux	Interoffice	Mux	Loop	Figure
A.1	collocation		2-wire VG		2-wire VG	1
A.2	collocation		4-wire VG		4-wire VG	1
A.3	collocation		DS1		DS1	1
A.4	collocation		DS3		DS3	1
A.5	collocation		STS-1		STS-1	1
A.6	DS1		DS1			1
A.7	DS3		DS3			1
A.8	STS-1		STS-1			1
A.9	DS1		DS1		DS1	1
A.10	DS3		DS3		DS3	1
A.11	STS-1		STS-1		STS-1	1

LEGEND:
Local Channel = CLEC POP to POP SWC
Interoffice Channel = BST CO - BST CO
Loop = End User SWC to End User
Mux = multiplexing function (OC-3, DS3, or
Bridge = DS0 multiplexing function

"New" combos:

IOC	Loop	Combo
DS1	DS1	A.3
DS3	DS1	D.1+C1
DS1	DS0	D.3+C.6-9

Private Lines

	Loop	Mux	Interoffice Channel	Mux	Loop		
B.1	2-wire VG		2-wire VG		2-wire VG	1	
B.2	4-wire VG		4-wire VG		4-wire VG	1	
B.3	2-wire VG		2-wire VG	DS0 bridge	4-wire VG		?
B.4	2-wire VG	DS0 bridge	DS0	DS0 bridge	2-wire VG		?
B.5	DS0 2-wire		DS0		2-wire VG	1	
B.6	4-wire VG	DS0 bridge	DS0	DS0 bridge	4-wire VG		?
B.7	4-wire DS0		DS0		4-wire DS0	1	
B.8	4-wire VG	DS1	DS1 ex	DS1	4-wire VG	5	
B.9	4-wire DS0	DS1	DS1 ex	DS1	4-wire DS0	5	
B.10	2-wire VG	DS0 bridge	DS0	DS0 bridge	4-wire VG		?
B.11	2-wire DS0		DS0	DS1	DS1	5	
B.12	4-wire VG	DS0 bridge	DS0	DS0 bridge	4-wire VG		?
B.13	DS1	DS3	DS3 EX	DS3	DS1	5	

Group 2 – Group 4

GROUP 2 DS0/DS1 on channelized DS1/DS3

	Local Channel	CFA	Interoffice Channel	CFA	Loop	
C.1	existing	3/1	DS1		DS1	3 ride D.1/2
C.2	NA	1/0	DS0		DS0	4 ride D.3
C.3	NA	3/1	DS1		DS1	4 ride D.1/2
C.4	existing	1/0	2-wire VG		2-wire VG	3 ride D.3
C.5	existing	1/0	4-wire VG		4-wire VG	3 ride D.3
C.6	existing	1/0	DS0 2-wire		DS0 2-wire	3 ride D.3
C.7	existing	1/0	DS0 4-wire		DS0 4-wire	3 ride D.3

GROUP 3 Channelized Combos

	Local Channel	Mux	Interoffice Channel	Mux	Loop	
D.1	DS3		DS3	DS3		2
D.2	STS-1		STS-1	DS3		2
D.3	DS1		DS1	DS1		2
D.4		DS3	DS3		DS3	2
D.5		DS3	STS-1		STS-1	2
D.6		DS1	DS1		DS1	2

GROUP 4 Non-Channelized Optical

	Local Channel	Mux	Interoffice Channel	Mux	Loop	
E.1	OC-3		OC-3			6
E.2	OC-12		OC-12			6
E.3	OC-3		OC-12 ex		OC-3	6
E.4	OC-12		OC-48 ex		OC-12	6

Group 5

GROUP 5 Channelized Optical & Facility

	Local Channel	Mux	Interoffice Channel	Mux	Loop	
G.1			OC-3 ex		DS3	6
G.2			OC-3 ex		DS1	6
G.3			OC-3 ex		STS-1	6
G.4			OC-3		OC-3	6
G.5			OC-12 ex		DS3	6
G.6			OC-12 ex		STS-1	6
G.7			OC-12 ex	OC-3 ex	DS1	6
G.8			OC-12		OC-12	6
G.9			OC-48 ex		DS3	6
G.10			OC-48 ex		STS-1	6
G.11			OC-48 ex	OC-3 ex	DS1	6
G.12			OC-48 ex		OC-12	6
G.13	OC-48 ex		DS3			6
G.14	OC-48 ex		STS-1			6
G.15	OC-48 ex	OC-3 ex	DS1			6
G.16	OC-48 ex		OC-12			6
G.17	OC-12 ex		DS3			6
G.18	OC-12 ex		STS-1			6
G.19	OC-12 ex	OC-3 ex	DS1			6
G.20	OC-12		OC-12			6
G.21	OC-3 ex		DS3			6
G.22	OC-3 ex		DS1			6
G.23	OC-3 ex		STS-1			6
G.24	OC-3		OC-3			6
G.25			OC-48		OC-48	6
G.26	OC-48		OC-48			6
G.27	OC-3		OC-3		OC-3	6
G.28	OC-12		OC-12		OC-12	6
G.29	OC-48		OC-48		OC-48	6

C. Forecast:

Undetermined

D. Billing:

Billing will be accomplished through CABS.

1. SIG will not apply.
2. SAW will not apply
3. Billing Guarantee will not apply.
4. STATE MISSED APPOINTMENT CREDITS will apply (TELRIC).
5. EXPEDITE CHARGES for shorter intervals will apply (TELRIC).

6. CANCELLATION CHARGES will apply (TELRIC).
7. SERVICE ORDER MODIFICATION charges will apply (TELRIC).
8. CREDIT OUTAGES will apply (TELRIC).

Ratcheting should not apply to transport that is used for 100% local, e.g. UNE transport used to build a CLEC's network. However, UNE transport used for Local Interconnection may have ratcheting implications if the transport is a mixed use facility, e.g. has Special Access use.

Credit Terms/Payment Plans - There are also no volume or term options for this service; consequently, only month to month rates will be offered.

The following **PRICING STRUCTURE** is being requested:

NOTE: There is a requirement to have separate disconnect charges in some states. The ability to charge separate disconnect charges needs to be developed.

UNBUNDLED LOCAL LOOP
Unbundled Local Loop - DS3
Unbundled Local Loop - DS3 - per Mile
Unbundled Local Loop - DS3 - per Facility Termination
- NRC - DS3 - Facility Termination - 1st
- NRC - DS3 - Facility Termination - Add'l
- NRC - DS3 - Facility Termination - Disconnect - 1st
- NRC - DS3 - Facility Termination - Disconnect - Add'l
- NRC - DS3 - Incremental Charge--Manual Svc Order - 1st
- NRC - DS3 - Incremental Charge--Manual Svc Order - Add'l
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

Unbundled Local Loop - OC3
Unbundled Local Loop - OC3 - per Mile
Unbundled Local Loop - OC3 - per Facility Termination
- NRC - OC3 - Facility Termination - 1st
- NRC - OC3 - Facility Termination - Add'l
- NRC - OC3 - Facility Termination - Disconnect - 1st
- NRC - OC3 - Facility Termination - Disconnect - Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
- NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
- NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
- NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

Unbundled Local Loop - OC12
Unbundled Local Loop - OC12 - per Mile
Unbundled Local Loop - OC12 - per Facility Termination
- NRC - OC12 - Facility Termination - 1st
- NRC - OC12 - Facility Termination - Add'l
- NRC - OC12 - Facility Termination - Disconnect - 1st
- NRC - OC12 - Facility Termination - Disconnect - Add'l
- NRC -OC12 - Incremental Charge - Manual Svc Order - 1st
- NRC - OC12 - Incremental Charge - Manual Svc Order - Add'l
- NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-1st
- NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-Add'l

Unbundled Local Loop - OC48
Unbundled Local Loop - OC48 - per Mile
Unbundled Local Loop - OC48 - per Facility Termination

NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Local Channel - Dedicated - STS-1
STS-1 per mile per month
STS-1 Facility Termination per month
NRC - STS-1 - Facility Termination - 1st
NRC - STS-1 - Facility Termination - Add'l
NRC - STS-1 -Incremental Charge--Manual Svc Order - 1st
NRC - STS-1 - Incremental Charge--Manual Svc Order - Add'l

Local Channel - Dedicated - OC3
OC3 per mile per month
OC3 Facility Termination per month
NRC - OC3 - Facility Termination - 1st
NRC - OC3 - Facility Termination - Add'l
NRC - OC3 - Facility Termination - Disconnect Chg - 1st
NRC - OC3 - Facility Termination - Disconnect Chg - Add'l
NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Local Channel - Dedicated - OC12
OC12 per mile per month
OC12 Facility Termination per month
NRC - OC12 - Facility Termination - 1st
NRC - OC12 - Facility Termination - Add'l
NRC - OC12 - Facility Termination -Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order - 1st
NRC - OC12 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Local Channel - Dedicated - OC48
OC48 per mile per month
OC48 Facility Termination per month
OC48 - Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination -Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC -OC48 - Interface OC12 on OC48 -Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order - 1st
NRC - OC48 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-1st
NRC - OC48 -interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-Add'l

UNBUNDLED TRANSPORT - Interoffice Transport -Dedicated
Interoffice Transport - Dedicated - VG
2-Wire VG - per mile per month
2-Wire VG - Facility Termination per month
NRC - Facility Termination -1st

NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge -1st
NRC - Facility Termination - Disconnect Charge -Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect--Add'l

Interoffice Transport - Dedicated - DS0 - 56/64 KBPS
DS0 - per mile per month
DS0 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

Interoffice Transport - Dedicated - DS1
DS1 - per mile per month
DS1 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination -Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

Interoffice Transport - Dedicated - DS3
DS3 - per mile per month
DS3 -Facility Termination per month
NRC - DS3 - Facility Termination -1st
NRC - DS3 - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

Interoffice Transport - Dedicated - STS-1
STS-1 - per mile per month
STS-1 -Facility Termination per month
NRC - STS-1 - Facility Termination -1st
NRC - STS-1 - Facility Termination - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l

Interoffice Transport - Dedicated - OC3
OC3 -per mile per month
OC3 -Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - OC3 - Incremental Cost - Manual Svc Order vs. Electronic-1st
NRC - OC3 - Incremental Cost - Manual Svc Order vs. Electronic-Add'l

NRC - OC3 - Incremental Cost - Manual Svc Order vs. Electronic-Disconnect-1st
NRC - OC3 - Incremental Cost - Manual Svc Order vs. Electronic-Disconnect-Add'l

Interoffice Transport - Dedicated - OC12
OC12 -per mile per month
OC12 -Facility Termination
NRC - OC12- Facility Termination - 1st
NRC - OC12- Facility Termination - Add'l
NRC - OC12 - Facility Termination - Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Cost - Manual Svc Order vs. Electronic-1st
NRC - OC12 - Incremental Cost - Manual Svc Order vs. Electronic-Add'l
NRC - OC12 - Incremental Cost - Manual Svc Order vs. Elect-Disconnect-1st
NRC - OC12 - Incremental Cost - Manual Svc Order vs. Elect-Disconnect-Add'l

Interoffice Transport - Dedicated - OC48
OC48 -per mile per month
OC48 -Facility Termination per month
OC48 -per Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC - OC48 - Interface OC12 on OC48 - Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect - Add'l
NRC - OC48 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
NRC - OC48 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l
NRC - OC48-Interface-Incremental Cost-Manual Svc. Order vs. Elec-Disconnect-1st
NRC - OC48-Interface-Incremental Cost-Manual Svc. Order vs. Elec-Disconnect-Addl
NRC - OC48 - Incremental Cost - Manual Svc. Order vs. Electronic-1st
NRC - OC48 - Incremental Cost - Manual Svc. Order vs. Electronic-Add'l
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order vs. Electronic-1st
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order vs. Electronic-Add'l

CHANNELIZATION
DS3 Channelizaton (DS3 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

DS1 Channelization (DS1 to DS0)
per Channelized System (24 DS0) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
- Interface
per OCU-DP(data) card per month (2.4-64kbs)
NRC - 1st
NRC - Add'l

per BRITE card per month
NRC - 1st
NRC - Add'l
per VG card per month (DS0)
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

E. Deployment Schedule:

Ubiquitous deployment assuming current C.O. and loop capabilities
Additional transport capacities will be developed based on the bona fide Request process. Special construction may apply as appropriate. Since the Company has been ordered to provide these services, it is important that they be implemented as soon as possible.

F. Distribution Channels:

Use Interconnection Services Sales Channels - 12 headcount shared among all UNEs.
Product Management will compile an Account Team Information Package from the Interdepartmental Service Description.

G. Product Codes, etc.:

Unique sales codes for IPC/LCSC
Establish new product codes for services.
Unique identifiers will be assigned to all recurring rate elements.

H. Product Tracking Needs:

Unit Counter – TBD. Need unique counters for the each recurring rate element, e.g. a unit counter for facility terminations as well as mileage.
Revenue and Expenses - ABIS
Accounted for by: Region/State/GEO/Wire Center/Customer (by ACNA)

I. Tariff/Contract/Agreement:

Short Term: Standard Contract Agreement

- Since regulatory agencies have mandated these services, contract administration has included these services within the standard Interconnection Agreement.
- Need one headcount for contract administration spread over UNEs.

- The existing standard Interconnection Agreement specifies that any state without a price for Dedicated Transport will be provisioned out of the state tariff until BST offers the service.
- An interim procedure to bill contract rates is in place for DS0-DS3 Interoffice facilities. This does not include Local Channel or Channelization.

Long Term - 2001 forward: Tariff

- Pricing/Tariff Development Headcount per UNE (to be determined)

J. Advertising and Promotion:

Development of common "fact sheet" type brochure $50k per year through 2000 for all UNEs
Internet WEB page -- $100k per year through 2000 for all UNEs

K. Customer Training:

- one person-year plus $20k materials per year through 2000
- Document-based training (not face to face)
- How common facility growth is triggered
- Tech requirements/interface specifications
- Maintenance/repair
- General product overview - all UNEs
- Assume: man-hour loading - travel, PC equipped (misc.: office space, supplies)
- Product Management will compile CLEC Information Package from the Interdepartmental Service Description.

L. Staff Support Requirements:

The following requirements are for all Transport Product and Project Management UNEs

	PG	1999	2000
Product Manages	59 58	2 3	2 3
Project Mgrs.	59	5	5
Project Team	59 58	6 6	6 6

Headcount Requirements for Transport UNEs

II. NETWORK ARCHITECTURE

A. Physical Network Configuration

1. Switching Requirements

None

2. Signaling

None

3. Recording (AMA, etc.)

None

4. Transport

Unbundled Dedicated Transport Combos are point-to-point services that have four possible components:

1) Interoffice Channel
2) Local Channel
3) Loops
4) Channelization

Interoffice Channel provides a transmission path, and its associated electronics, between BellSouth end offices. It allows a CLEC to transport 2-wire Voice Grade, DS0s (Voice or Data), DS1s, DS3s, ISDN, OC3, OC12, OC48, and STS-1, from one location to another. These facilities are dedicated to a single network provider. These facilities may be configured in various transmission configurations and will provide the same transport capacities that exist in Section 6 of the FCC tariff (i.e., DS0, DS1 and DS3).

Local Channel is the dedicated point to point transmission path and the associated electronics between the CLEC's Point of Presence (POP) and the POP's Serving Wire Center.

A Loop is the dedicated point to point transmission path and the associated electronics between the end user's premises and the end user's serving wire center. Collocation is required at SWC.

Channelization is the function performed when a higher level facility is separated into lower level services, e.g. DS3 to DS1s or DS1 to DS0s. The facility is said to be channelized. This can be accomplished through the use of a multiplexer or a Digital Cross-connect System (DCS). Once the basic channelization system has been installed, channels can be activated all at once or on an as-needed basis. Like the tariffed service, this service is available where available (See NECA 4).

Unbundled Dedicated Transport Combos will adhere to the same technical criteria and specifications identified by the following tariffed retail services:

Service	***Tariff***
Native Mode LAN	A40
SPA DRY FIBER	FCC #1
70 MHZ VIDEO	B3
BROADCAST VIDEO	B3
COMMERCIAL QUALITY VIDEO	B3
Modular Videl Transport Service	B3
Uncompressed Digital Video Service	B3
VIDEO CONFERENCE SERVICE (MVCS)	B3
VIDEO SERVICE	B3
FLEXSERV	A32
ALARM AND CONTROL CKT	B3
ANALOG DATA SVC	B3
Local Area Data	B3
OFF PREM EXT (OPX)	B3
TELEGRAPH SERVICE	B3
TIE LINES	B3
Voice Grade Non-data	B3
DS1 Diverse Service	B7
Hicap DS1 Intrastate Special Access Lines	E Tariff
Analog Data Special Access	FCC #1
Audio Special Access	FCC #1
Flexserve Special Access	FCC #1
Hicap DS1 Interstate Special Access Lines	FCC #1
Voice Grade Special Access	FCC #1
WATS ACCESS	A19
LIGHTGATE	B7
SMARTPATH DS1 PRIVATE LINE	B7
SMARTRING - INTRALATA	B7
Lightgate Special Access	FCC #1
SMARTPATH DS1 INTERSTATE	FCC #1
SMARTPATH DS3 INTERSTATE	FCC #1
SMARTRING - INTERSTATE	FCC #1
Synchronet Dedicated private line facility offering speeds of 2.4K up to 64Kbps	B7
Megalink Point to Point data only facility	B7

FIGURES/MATRIX CORELATION

Figure 1

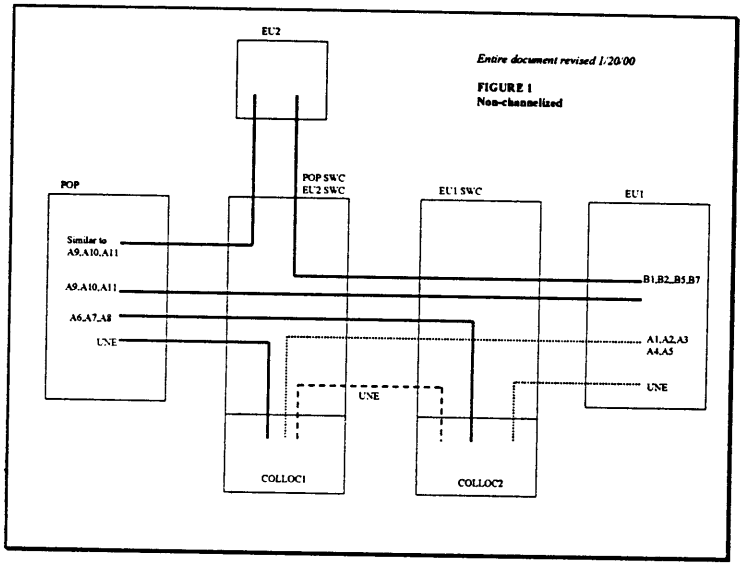


Figure 2

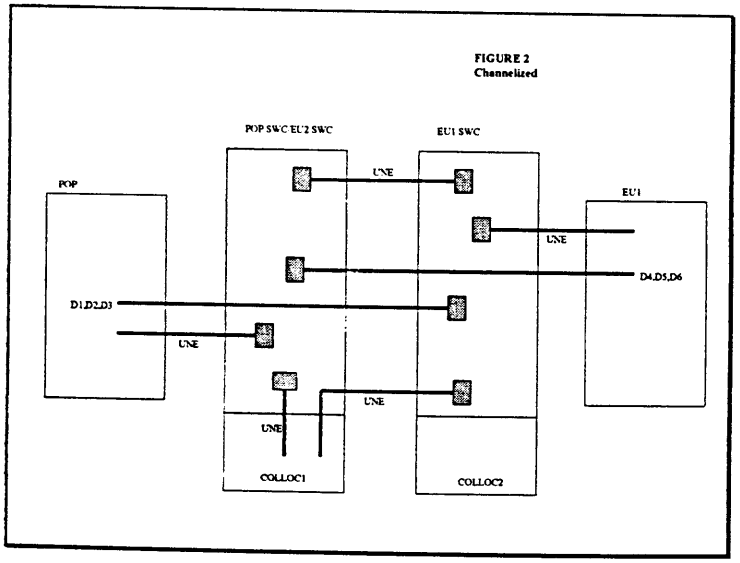


Figure 3

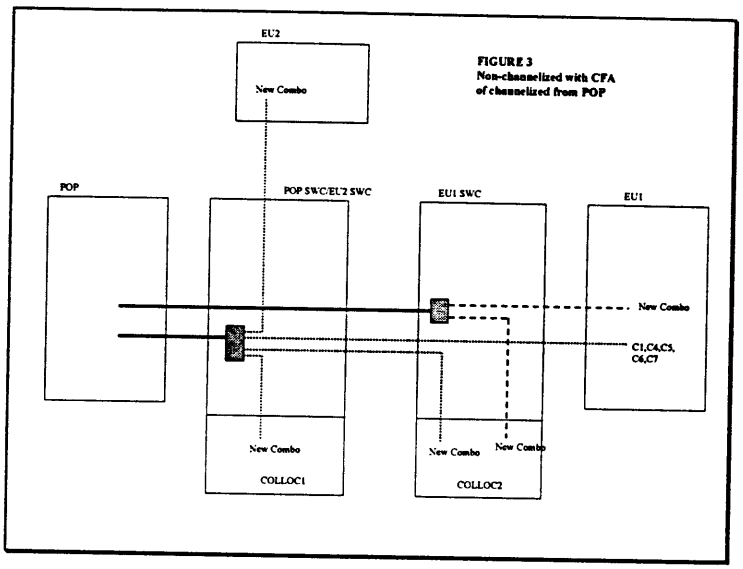


Figure 4

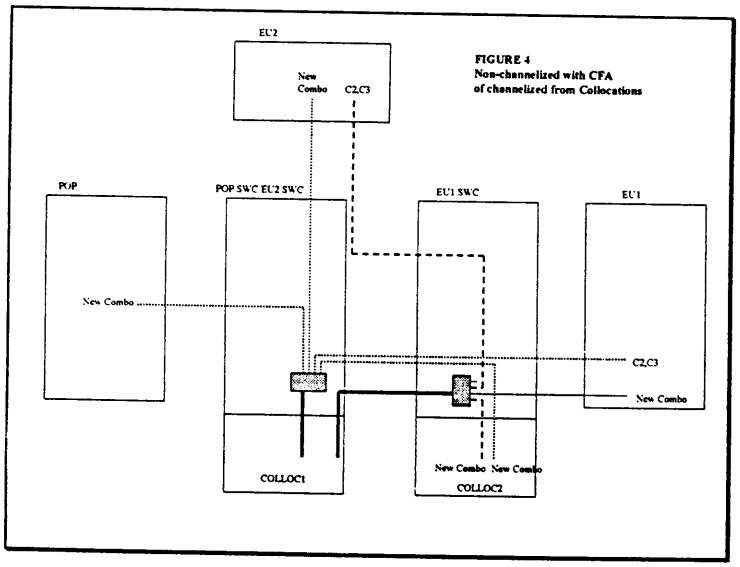


Figure 5

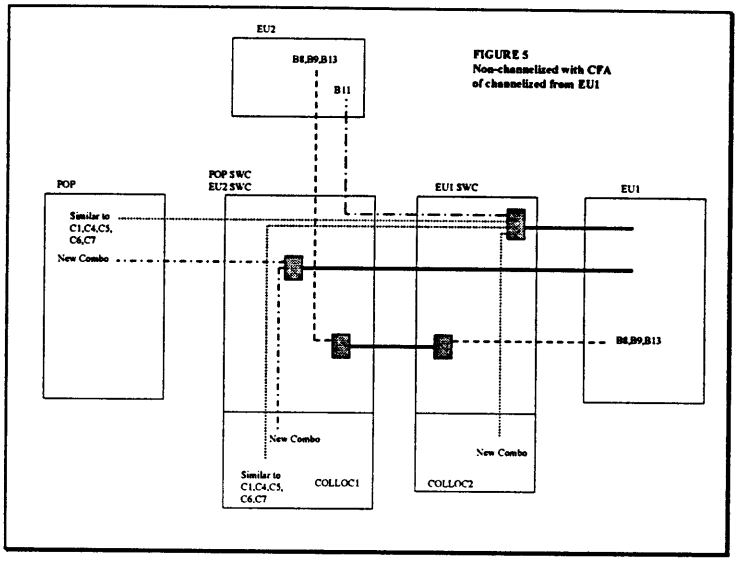
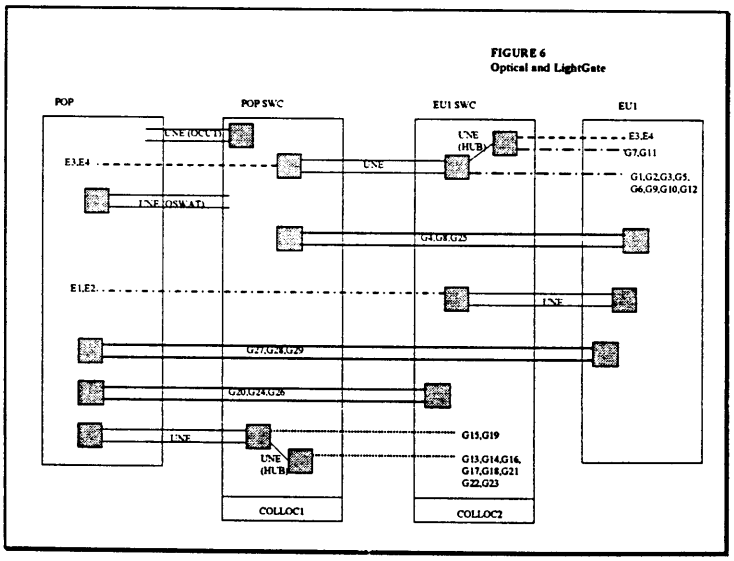


Figure 6



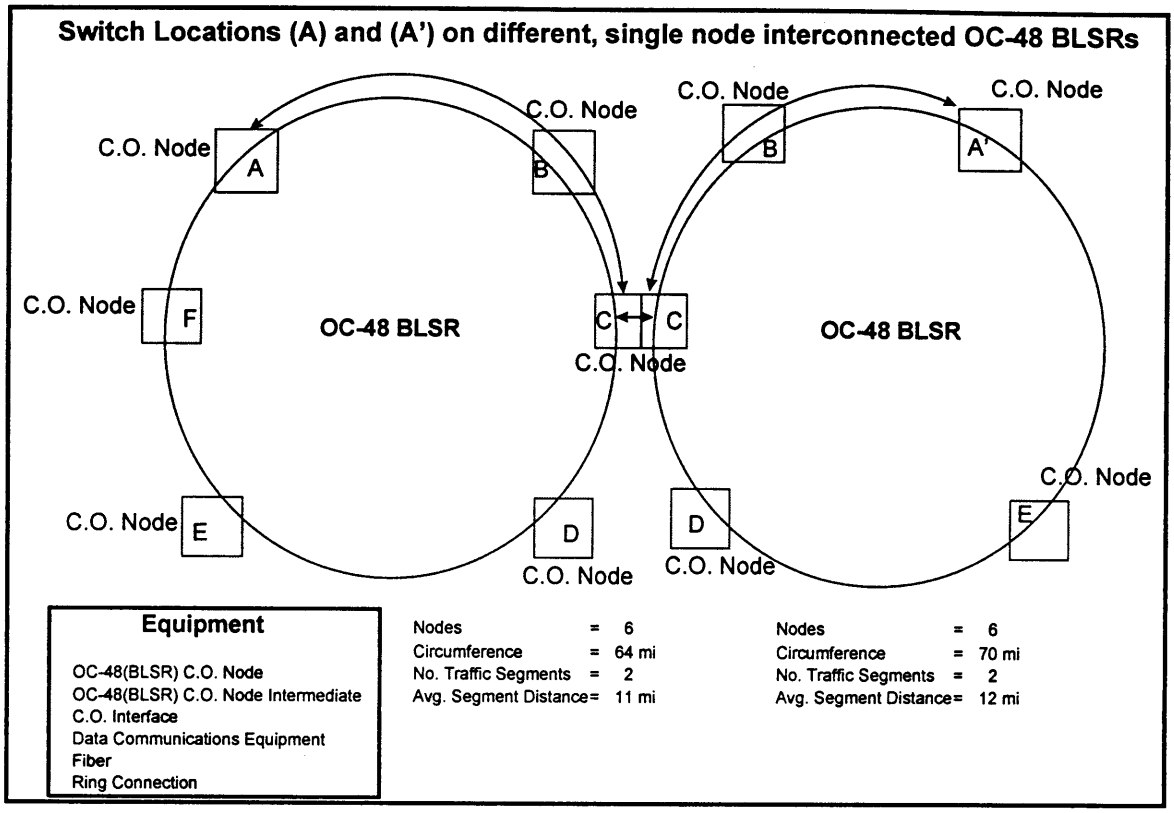


Figure 0-2. Switch Locations on different, single node interconnected OC-48 BLSRs

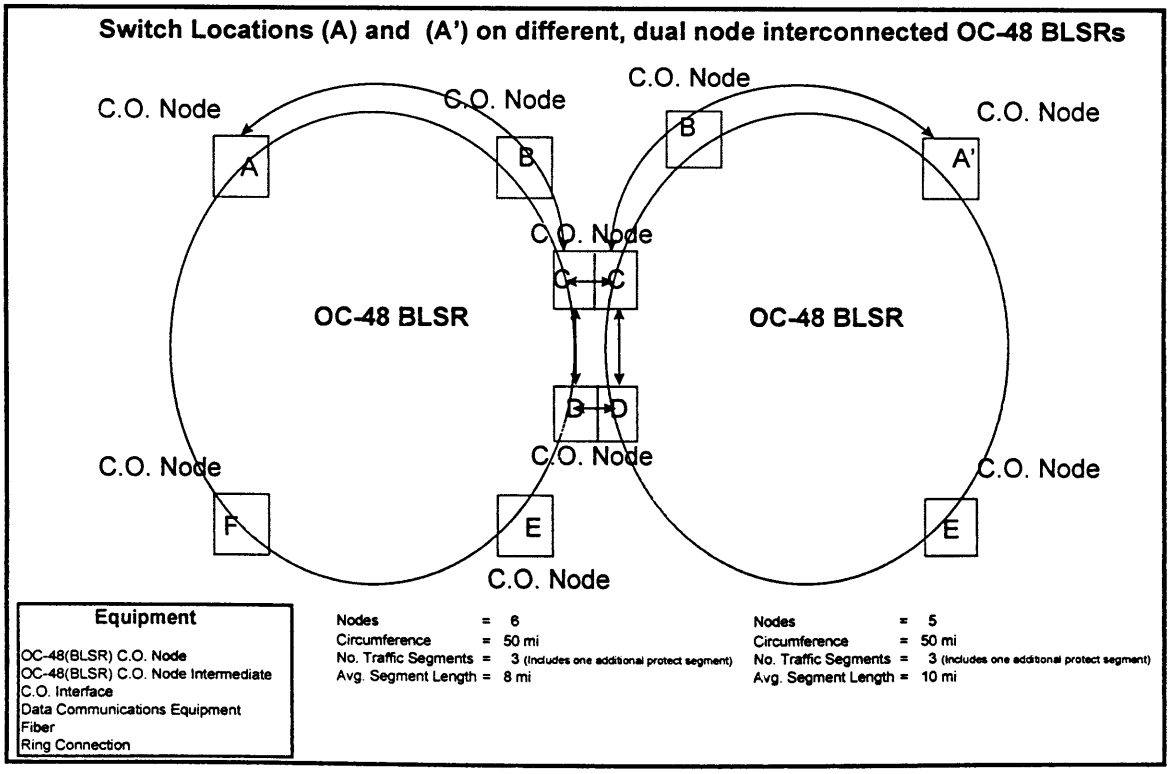


Figure 0-3. Switch Locations on different, dual node interconnected OC-48 BLSRs

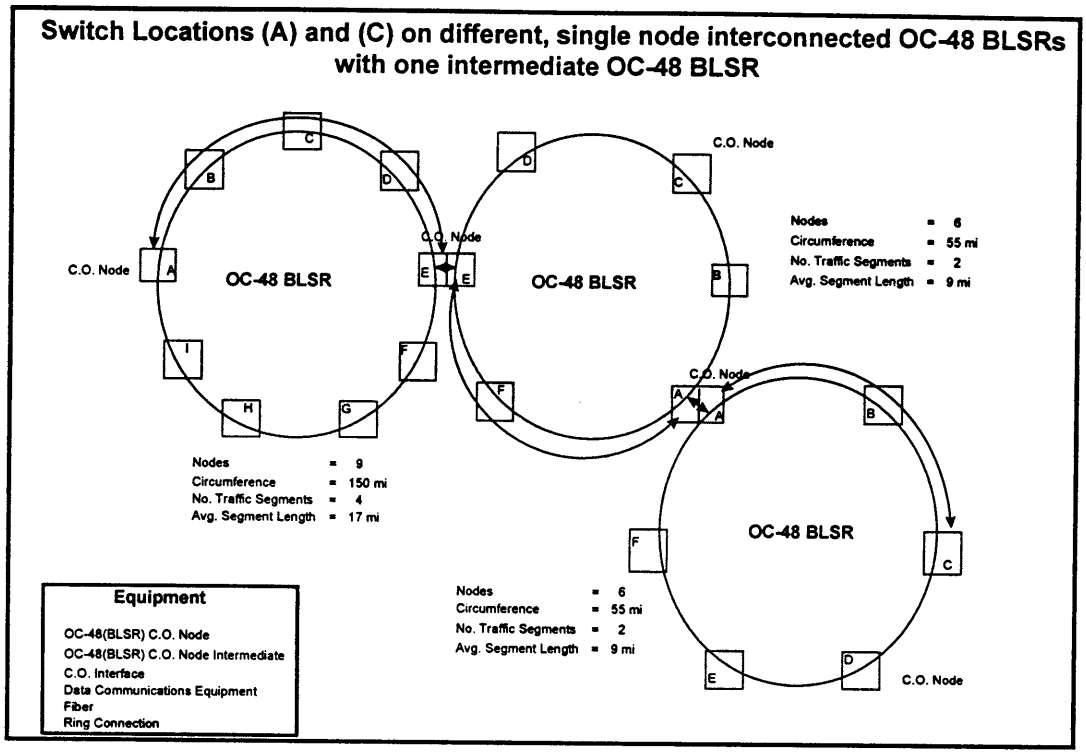


Figure 0-4. Switch Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR

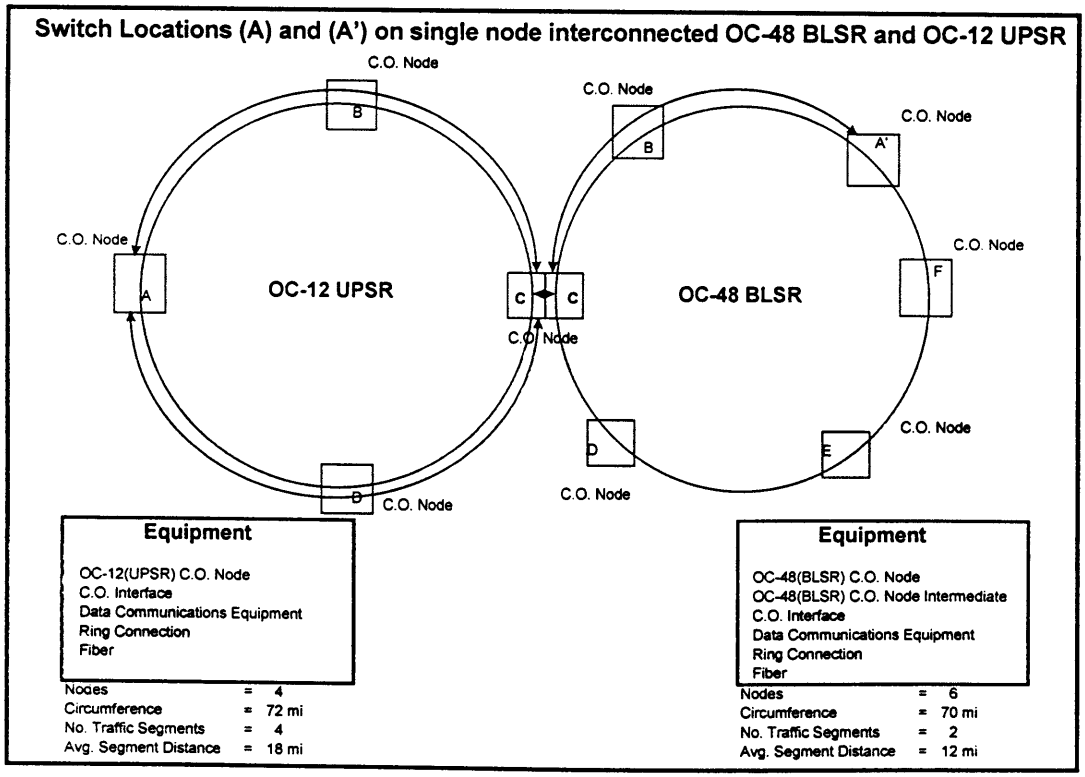


Figure 0-5. Switch Locations on single node interconnected OC-48 BLSR and OC-12 UPSR

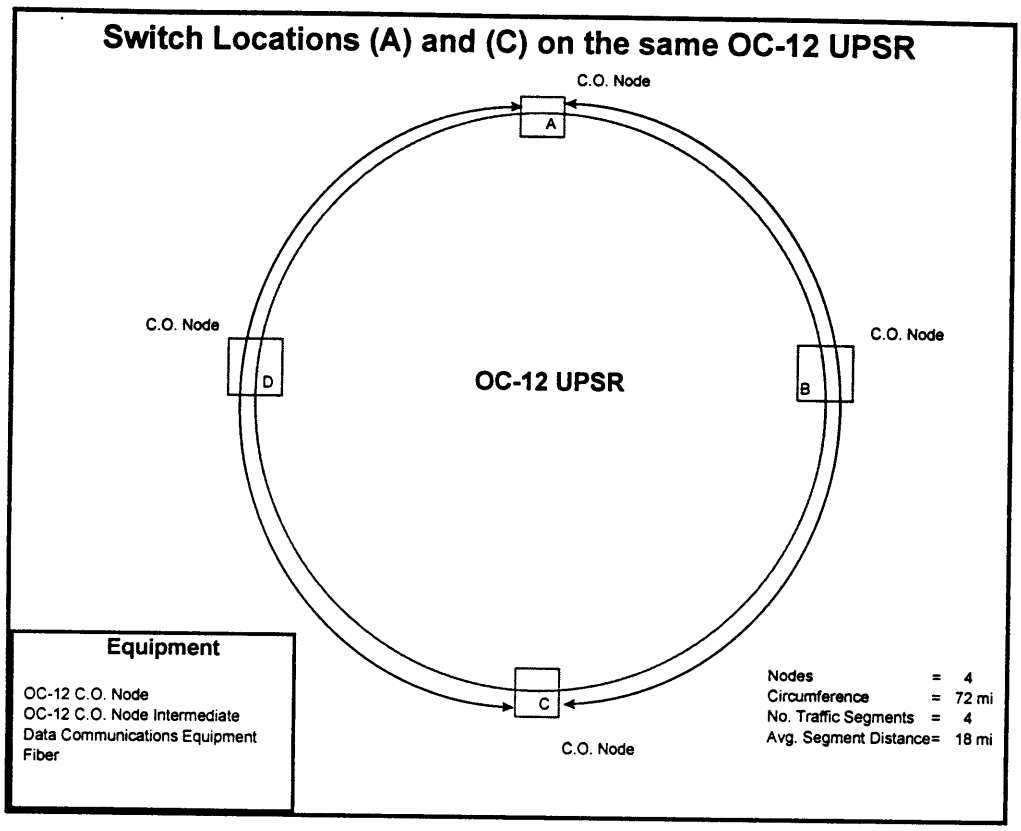


Figure 0-6. Switch Locations on the same OC-12 UPSR

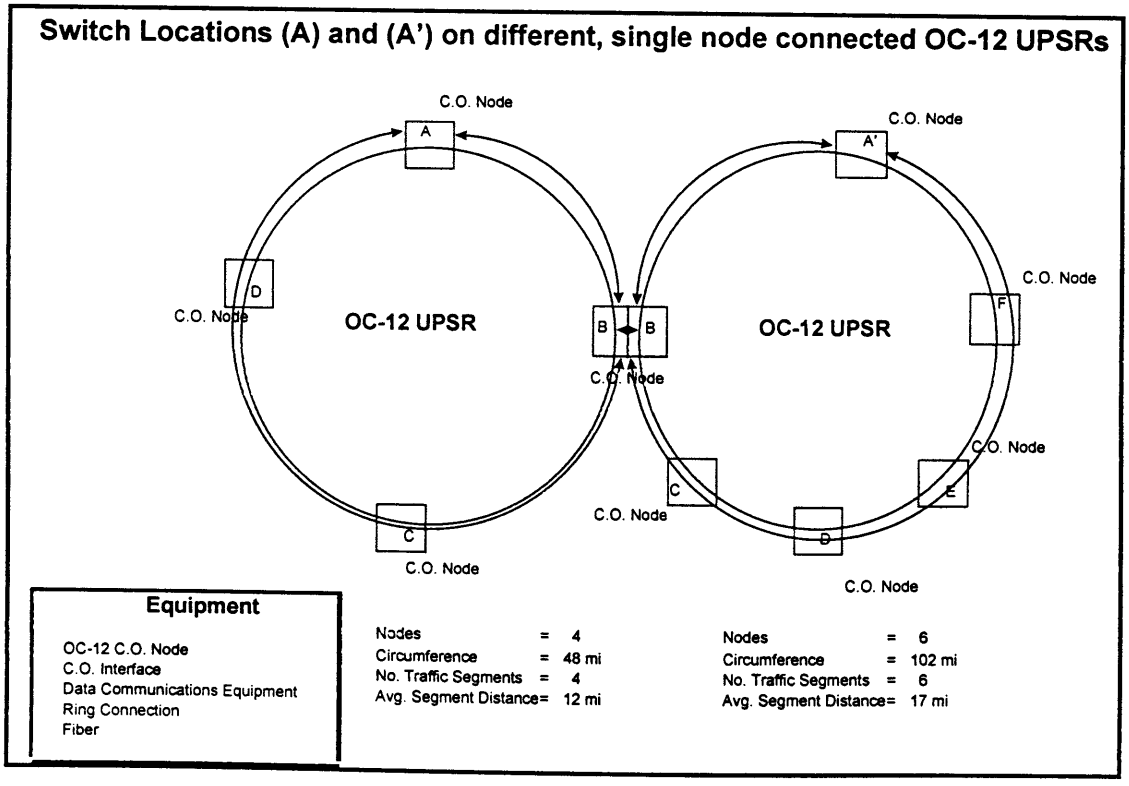


Figure 0-7. Switch Locations on different, single node interconnected OC-12 UPSRs

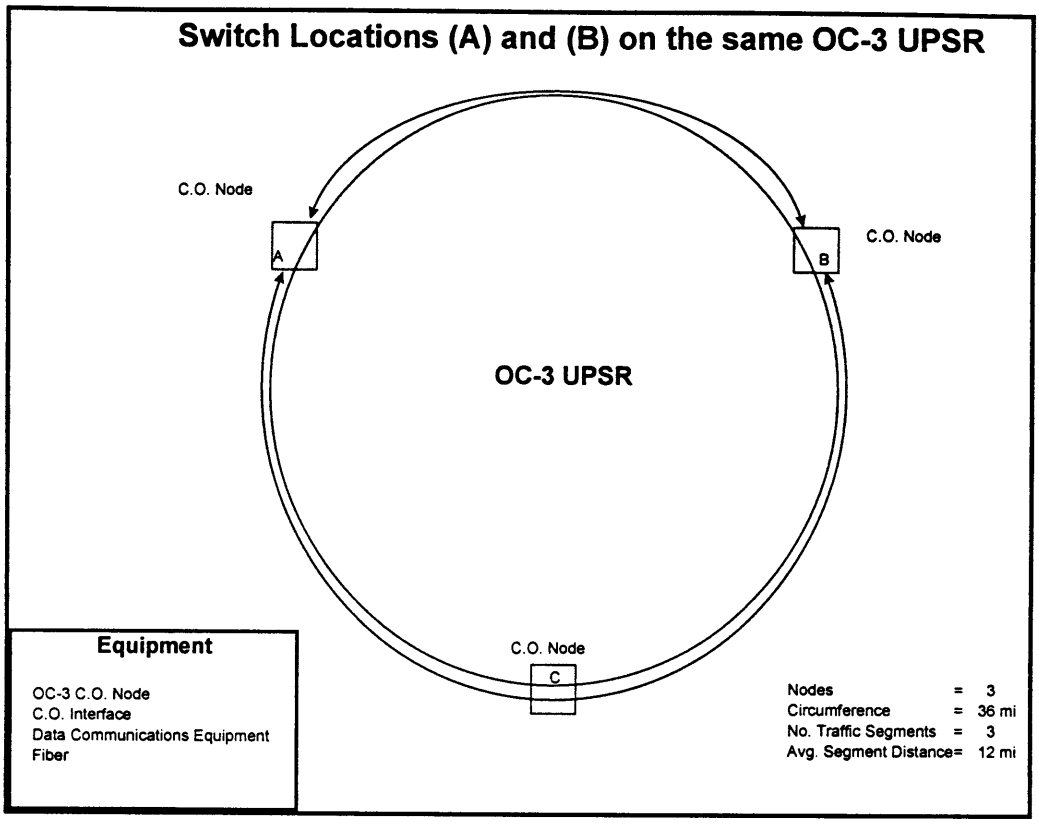


Figure 0-8. Switch Locations on the same OC-3 UPSR

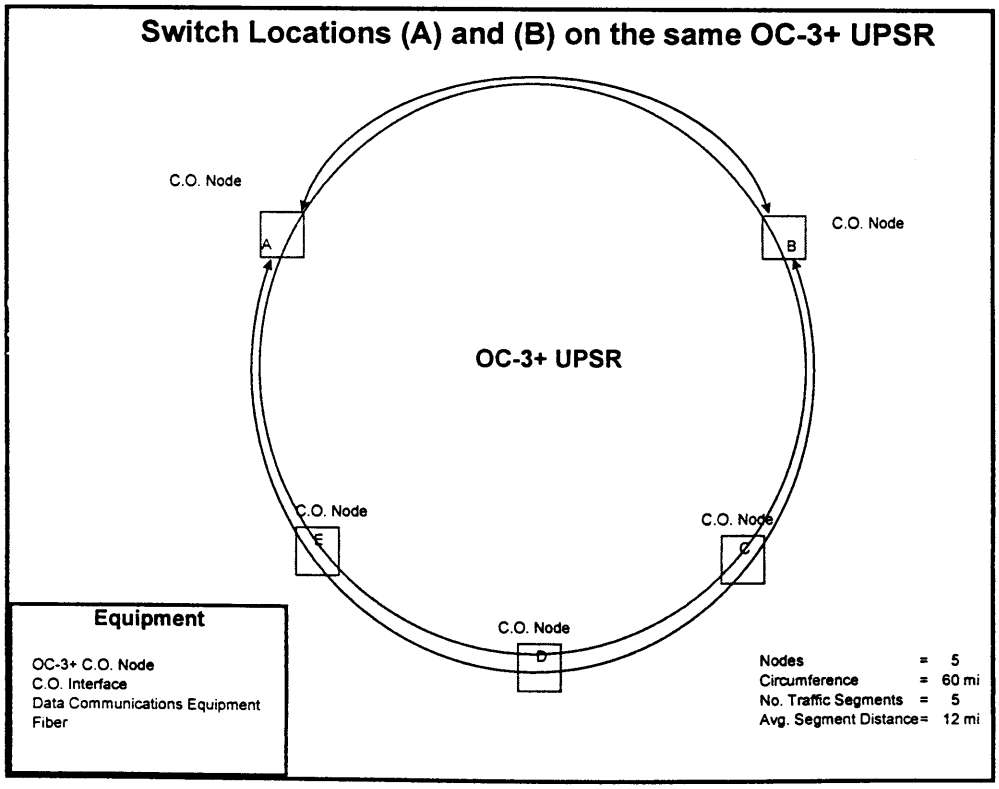


Figure 0-9. Switch Locations on the same OC-3+ UPSR

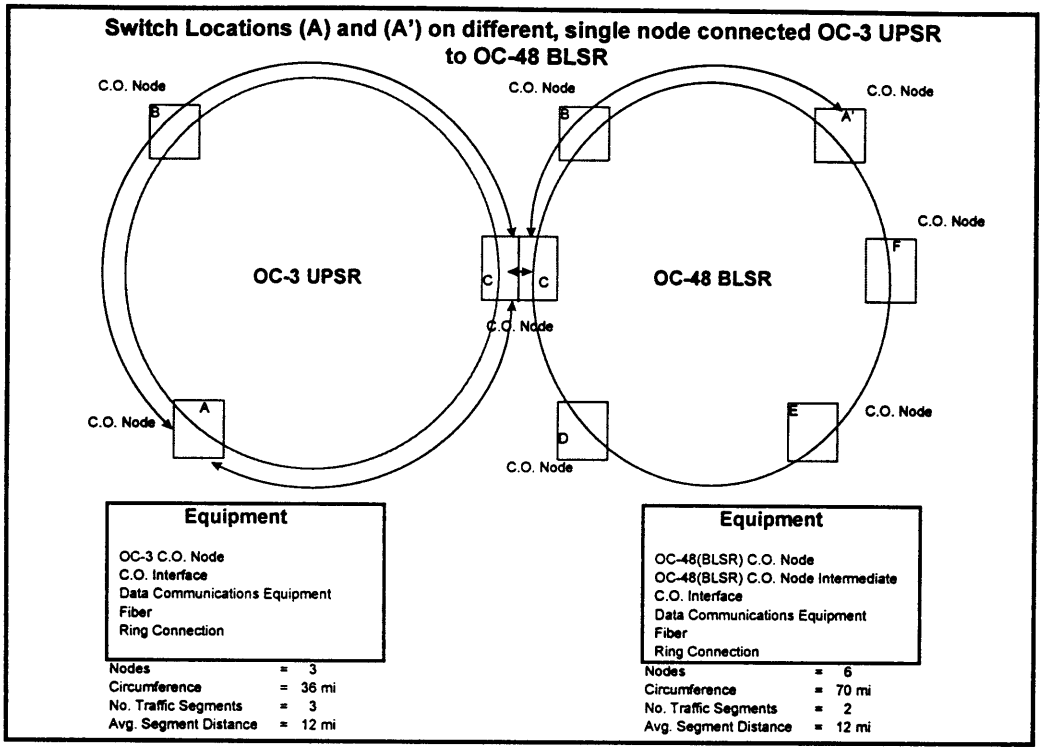


Figure 0-10. Switch Locations on single node interconnected OC-48 BLSR and OC-3 UPSR

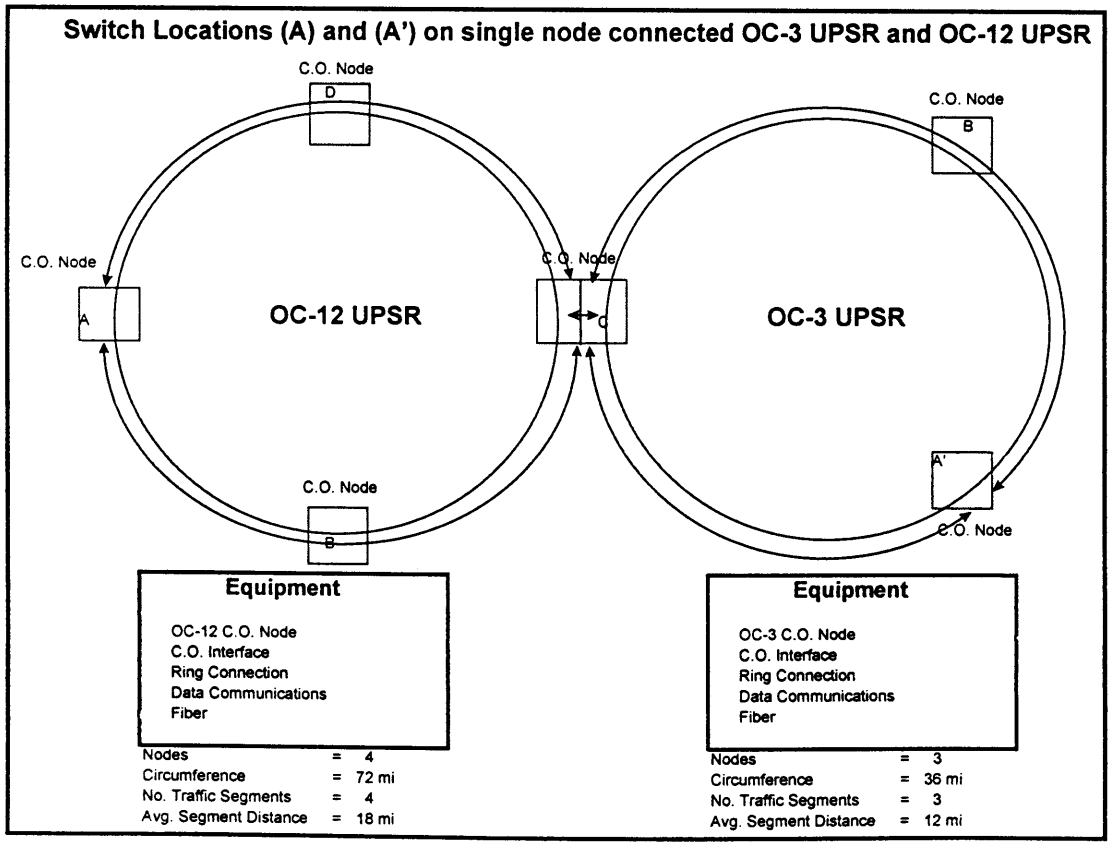


Figure 0-11. Switch Locations on single node interconnected OC-12 and OC-3 UPSRs

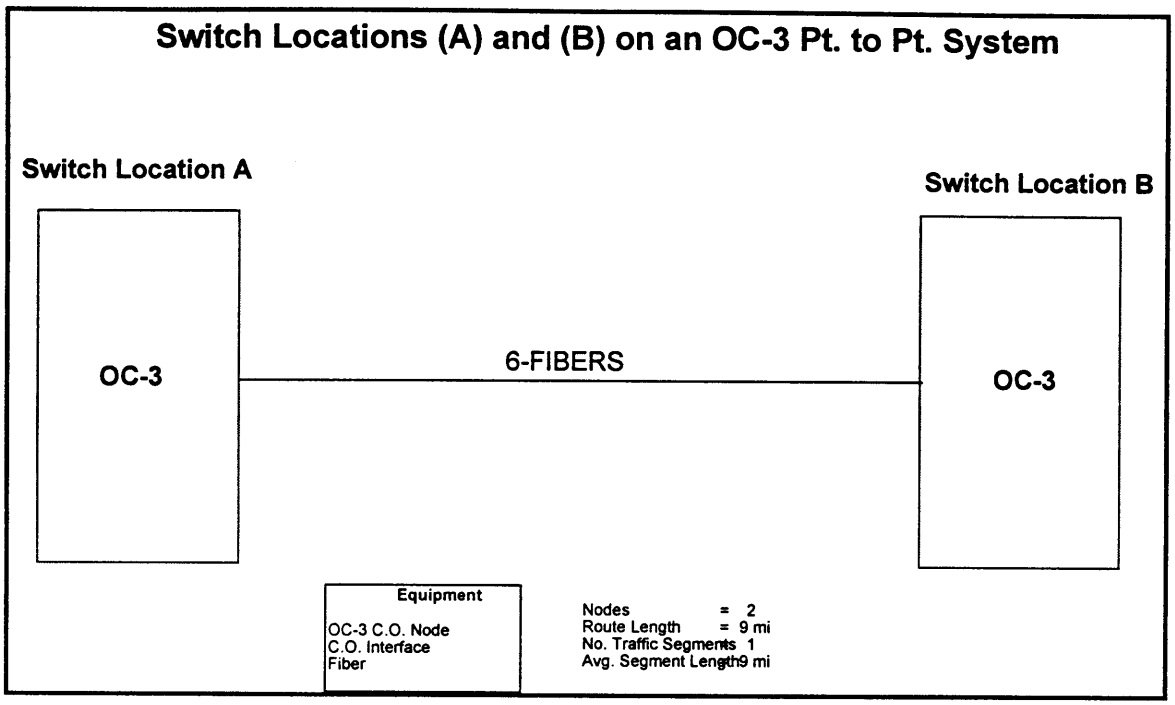


Figure 0-12. Switch Locations on and OC-3 Pt.-to-Pt. System

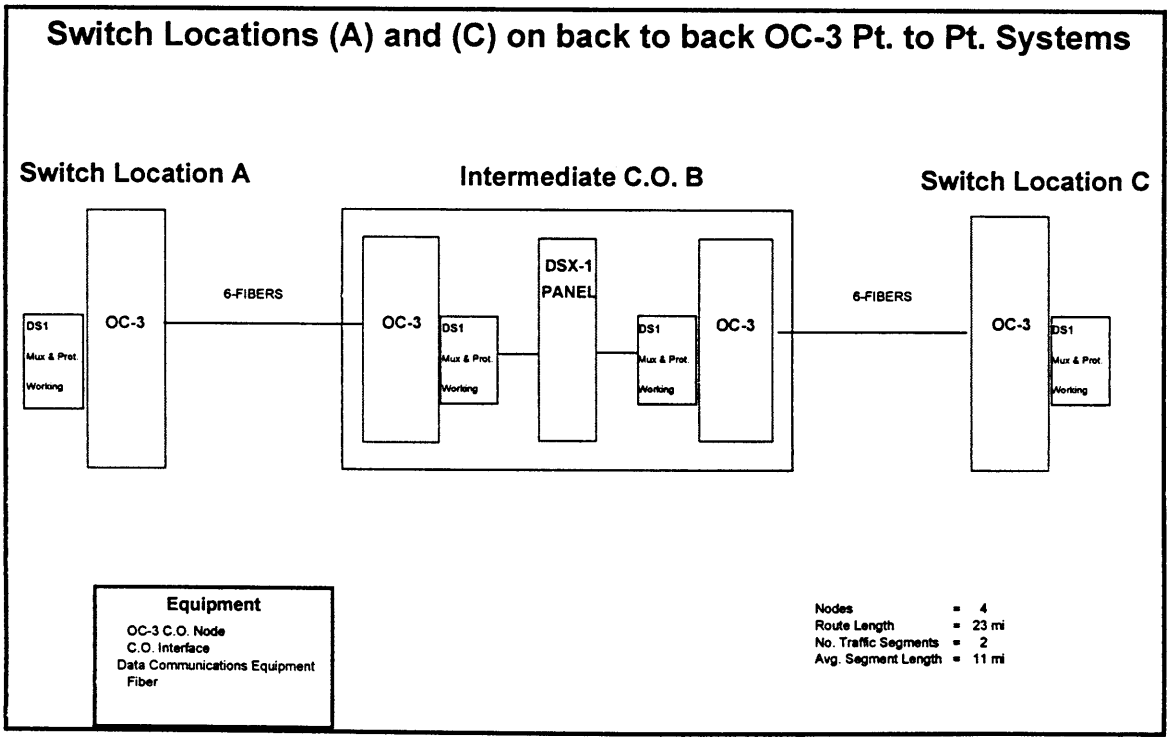


Figure 0-13. Switch Locations on back to back OC-3 Pt.-to-Pt. Systems

Local Channel is dedicated transport at the following bandwidths: 2-wire voice grade, 4-wire voice grade, DS1, DS3, ISDN, STS-1, OC3, OC12 and OC48. Local Channel provides a dedicated point to point transmission path and the associated electronics between BST's serving wire center (DSX3 or LGX frame) and the CLEC's POP. In the BST SWC this service must be extended to a collocation arrangement. Current policies concerning recombination will be adhered to.

Table 4-1 provides a listing of Unbundled Local Channel Levels and identifies Network Facility Architectures and Interface Options at the SWC and CLEC locations.

Unbundled Local Channel OC-3 and OC-12 Levels provide drop side interfaces off a BST provided SONET multiplexer at the CLEC POP location with OC-3 and OC-12 interfaces in the SWC as shown in Figure 1. These service arrangements are similar to the current LightGate® OC-3 Customer Channel & Central Office Interfaces and the LightGate OC-12 Customer Channel & Central Office Interfaces that are under development. At this time Unbundled Local Channel OC-3 and OC-12 Levels will only support a 2 fiber interface – LightGate supports 2 and 4 fiber interfaces.

Unbundled Local Channel OC-48 Level allows the CLEC an opportunity to provide the SONET Add/Drop Multiplexer at their POP location. At the CLEC POP, this service arrangement is similar to the current LightGate OC-48 LightGate Local Channel System with Optical Customer Termination (OCUT). In the Serving Wire Center an OC-12 drop side interface is provided. At the SWC, this service arrangement is similar to the LightGate OC-12 Central Office Channel Interface that is under development. The LightGate OCUT is a 4 fiber interface that allows the customer the opportunity of providing the SONET equipment at their premises. Customer provided equipment must be compatible with BST approved equipment used in the SWC. The line side of the SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used and BST reserves the right to determine the equipment it employs for service.

Table 4-1. – Unbundled Local Channel Levels, Architectures and Interface Options

ULC Level	Network Facility Architecture	Location	Interface[1] Options	Physical Interface
OC-48	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	4 Fiber OC-48 OCUT[2]	Duplexable SC Connector

[1] For 2 fiber interfaces, a working fiber pair (2 individual fibers - one fiber for each direction of transmission) is provided at the NI. For 4-fiber interfaces, 2 fiber pairs (4 individual fibers - 2 working and 2 protection) are provided at the NI.

[2] For OC-48 span level interconnections, the CLEC's Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line

OC-12	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-12 Drop	Duplexable SC Connector
OC-3	OC-48, OC-12	BST SWC	2 Fiber OC-3 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-3 Drop	Duplexable SC Connector
STS-1	OC-48, OC-12, OC-3	CLEC POP	2 Conductor	2 - BNC[3] Connectors

4.1 Floor Space and Entrance Facilities

Where BST provides termination equipment at the CLEC POP location, the CLEC must provide suitable floor space, including an environment controlled for humidity and temperature, and a source of non-switched AC power to support ULC service.

4.2 ULC Level Capacity Limits

Unbundled Local Channel (ULC) Level are capable of transporting DS1, DS3, STS-1, OC-3 and OC-12 channels. The capacity of ULC is depicted in Table 4-2.

Table 4-2. ULC Level Capacity Limits

Unbundled Local Channel Level	DS1	DS3	STS-1	OC-3	OC-12	OC-48
OC-48	1344	48	48	16	4	-
OC-12	336	12	12	4	-	-
OC-3	84	3	3	-	-	-
STS-1	28	1	-	-	-	-
DS3	28	-	-	-	-	-

side of the SONET system will be arranged as a two-node ring, utilizing ring software and the Data Communications Channel (DCC) not will be active across the interface.

[3] The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 – TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

4.3 Technical Specifications

Existing BellSouth Technical References contain technical specifications that are in part applicable to Unbundled Local Channel OC-3, OC-12, OC-48, STS-1 and DS3 interfaces. LightGate is the most similar service; its interface and performance specifications are contained in TR 73501, *LightGate® Service Interface and Performance Specifications.*

The service terminology in TR 73501 has been tailored to the LightGate service offering. Some of the specific interfaces and features are not applicable to Unbundled Local Channel Levels. In addition, the LightGate OC-12 Customer & Central Office Channel Interfaces under development are not included in the TR at this time.

4.4 SONET Network Interface Requirements

This section defines the Synchronous Optical Network (SONET) OC-3, OC-12 & OC-48 Optical Network Interface (NI) requirements. It denotes existing documentation that details signal specifications and provides BST variations and clarifications. The SONET interface is delineated in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems:Common Criteria Physical Layer*
ANSI T1.105-1995	*Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates, and Formats*

It is recommended that BST and the CLEC jointly engineer SONET optical interfaces. For ULC OC-48 Level span level interconnections the CLEC's SONET Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line side of the OC-48 Level SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used, and the Data Communications Channel (DCC) must be turned off. BST reserves the right to determine the equipment it employs for service.

4.5 Overhead Bytes Active Across NI

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-3. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future

utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

Table 4-3. Overhead Bytes Active Across NI

Overhead	Transport Overhead			Path
	Framing A1	Framing A2	Section Trace J0	PathTrace J1
Section Overhead	Section BIP-8 B1			Path BIP-8 B3
				Signal Label C2
	Pointer H1	Pointer H2	Pointer Action H3	Path Status G1
	Line BIP-8 B2	APS K1	APS K2	
Line Overhead				Indicator H4*
		M1 STS-N Line REI		

* These bytes could be active across the interface for specific applications.

4.6 *Automatic Protection Switching*

Automatic Protection Switching (APS) is controlled by the K1 and K2 bytes. For OC-48 ULC Level Service with a 4 fiber interface, unidirectional 1+1 non-revertive APS will be provided across the NI. Use of the K1 and K2 bytes is specified in GR-253-CORE and ANSI T1.105.01-1994, *Synchronous Optical Network (SONET) - Automatic Protection Switching.*

4.7 Payload Compatibility

For payloads terminated within the BST network, payload compatibility must be assured. Payload mappings for Synchronous Payload Envelopes (SPEs) terminated in the BST network are defined in ANSI T1.105.02, *Synchronous Optical Network (SONET) - Payload Mappings* and currently limited to the following:

- Asynchronous mapping for DS1 signals into floating VT1.5 SPE.
- Asynchronous mapping for DS3 signals with DS3 framing structure into STS-1 SPE.
- STS-1 signals mapping into STS-3 SPE or STS-12 SPE.

The OC-3, OC-12 and OC-48 ULC interfaces support transport of properly mapped STS-1, STS-3, STS-3c (concatenated) and STS-12 signals. Payloads that are transported but not terminated in the BST network must be contained in one of the supported frame structures. In addition to these standard mappings, proprietary mappings (provided they comply with standard frame, format and overhead structure) may also be acceptable for transport.

Sub STS-1 Level Multiplexing

SONET VT1.5 or Asynchronous M13 multiplexing can be supported with OC-3, OC-12 or OC-48 ULC interconnection interfaces.

DS1 payloads can be directly mapped into the VT1.5 SPE using the asynchronous mapping for a DS1. DS1 payloads contained within a DS3 must be mapped using the asynchronous M13 multiplex format (combination of M12 and M23 formats) for terminal equipment that multiplexes 28 DS1s into a DS3, as defined in ANSI T1.107-1995, *Digital Hierarchy Formats Specifications.*
The DS3 signal must be framed utilizing the framing structure in ANSI T1.107 and must use the asynchronous mapping for a DS3 into an STS-1 SPE.

4.8 Fiber Transmission Media

The optical interface shall use single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. The conventional dispersion-unshifted single-mode fiber (also known as EIA/TIA Class IVa fiber) shall meet the requirements detailed in Bellcore GR-20-CORE, *Generic Requirements for Optical Fiber and Optical Fiber Cables*, and ITU Recommendation G.652, *Characteristics of a Single-Mode Optical Fiber Cable.*

The 2 fiber interface provides a working fiber pair that uses one fiber for each direction of transmission. The 4 fiber interface provides a working and protection fiber pair (4 individual fibers - 2 working and 2 protection) as shown in Figure 2.

Typical Fiber Performance Characteristics

Table 4-4 provides typical characteristics of optical fiber and components commonly utilized in BST's network:

Table 4-4. Typical Technical Characteristics of BST Optical Fiber and Components

Wavelength (λ)	1310 nm	1550 nm
Typical Fiber Loss	0.5 dB/km	0.35 dB/km
Discrete Reflectance (Splices, Connectors)	-40.0 dB	-40.0 dB
Medium Zero Dispersion Wavelength	1310 ± 3 nm	Not Applicable
Chromatic Dispersion (Fiber Cable)	3.5 ps/nm-km	18.0 ps/nm-km
Chromatic Dispersion Slope (Fiber Cable)	0.093 ps/(nm-km^2)	0.093 ps/(nm-km^2)

The transmission characteristics of a specific ULC application may differ from the above typical performance characteristics.

4.9 Optical Mechanical Interface

At the NI, BST will provide duplexable SC type (EIA/TIA SCFOC/2.5) plug and jack type connectors which will be used to support transmission over single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. BST will install the connector jack to serve as the NI. BST and the CLEC must each provide connector plugs to terminate their fibers at the NI. Each connector plug will contain 2 fibers, one for each direction of transmission. The connector jack will be the demarcation point between BST and the CLEC installation.

Alternatively, the CLEC may want to provide interconnection components at their location to serve as the NI. BST and the CLEC must agree upon a mutually acceptable test point at the CLEC's location that will serve as the NI. The CLEC provided NI should be functionally consistent with BST provided NIs and BST technicians must be allowed

to access and test from the NI. The use of components such as the Value-Added Connector Module System (VAM System) from ADC Telecommunications can add flexibility and a monitoring capability. The CLEC would provide and install the NI - which would consist of a VAM chassis and monitor module (90/10 splitter). BST would provide a fiber jumper from its terminal equipment to the VAM module. This jumper could accommodate different connectors on each end. In a specific application it is proposed to use a SC type connector at the BST terminal equipment and a FCPC type connector at the CLEC provided VAM module.

4.10 Physical Media Characteristics

The interface shall meet the physical media characteristics defined in GR-253-CORE for Short Reach (SR), Intermediate Reach-1 (IR-1) or Long Reach (LR) applications. Transmitter, optical path and receiver parameters for OC-3, OC-12 and OC-48 are the same as shown in TR 73501 Tables 8-1 through 8-3.

4.11 System Budget – Joint Engineering

The establishment of optical interfaces will require joint engineering between BST and the CLEC using commonly accepted engineering practices. The design approach should be based on ANSI/EIA/TIA-559, *Single-Mode Fiber Optic System Transmission Design*, or GR-253-CORE procedures. BST's design procedures are contained in 855-355-100BT, *Single-Mode Fiber Optic Transmission System Design Procedures.*

For the purpose of optical parameter specifications, optical interfaces are referred to an optical system reference diagram as shown in Figure 3. Point S is a reference point on the optical fiber just after the transmitter (Tx) optical connector (C_{Tx}). Point R is a reference point on the optical fiber just before the receiver (Rx) optical connector (C_{Rx}). Points S and R provide a convenient separation of the optical link into a transmitter sub-section, a receiver subsection, and an optical path subsection. Optical parameters are specified for the transmitter at point S, for the receiver at point R, and for the optical path between Points S and R. All parameter values specified are worst-case values and are to be met over the ranges of standard operating conditions (i.e., temperature and humidity ranges); they include aging effects. The parameters are specified relative to an optical section design objective of a bit error ratio (BER) better than $1x10^{-10}$.

To ensure proper system performance it is necessary to specify attenuation and dispersion characteristics of the optical path. Attenuation shall be in the range of 0-7 dB for SR applications, 0-12 dB for IR applications, and 10-24/28 dB for LR applications. This specification is assumed to represent worst-case values including losses due to splices, connectors, optical attenuators (if used), or other passive optical devices, and any additional cable margin to cover allowances for the following:

1) future modifications to the cable configuration (additional splices, increased cable lengths, etc.),
2) fiber cable performance variations due to environmental factors, and
3) degradation of any connector, optical attenuator (if used), or other passive optical device when provided.

For design purposes, BST will provide the CLEC the following information:

- Length of the fiber cable including 3% extra for possible cable reroutes.
- Loss budget value in decibels/kilometer (dB/km) of fiber cable at λ = 1310 nm or λ = 1550 nm.
- Number of splices constructed and anticipated number of maintenance splices.
- Loss budget value of each splice in dB/splice.
- Loss budget value of single-mode fiber jumper in dB/jumper.
- Loss budget value of jumpers and connectors at the Lightguide Terminal Interconnect Equipment (LTIE) in dB at customer premises.
- Loss budget values of jumpers and connectors in dB used to connect fibers in BST office(s).

Note: Loss Budget Values are end-of-life values that account for aging and are usually greater than actual measured values.

4.12 STS-1 Network Interface Requirements

This section defines the Synchronous Transport Signal level 1 (STS-1) Customer Channel Interface Network Interface (NI) requirements. It denotes existing documentation that details electrical and signal specifications and provides BST variations and clarifications. The physical layer of the STS-1 NI is defined in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer*
ANSI T1.102-1993	*Digital Hierarchy – Electrical Interfaces*
ANSI T1.105-1995	*Digital Hierarchy - Optical Interface Rates and Formats Specifications (SONET)*

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-1. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

One coaxial cable is provided for each direction of transmission. Interconnection at the NI shall be by a SJA 44 connector. The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 - TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

The referenced cable for interconnections at the NI is 75 ohm coaxial cable with tinned copper meeting the requirements specified in ANSI T1.102. The STS-1 electrical interface is provided for use at a customer premises or in a central office. This interface allows a maximum interconnection distance of 450 feet on each side of the STSX-1 cross connect, assuming 728A coaxial cable.

4.13 DS3 Network Interface Requirements

This section defines the DS3 Network Interface (NI) requirements. It denotes existing documentation, which details electrical and signal specifications and provides BST variations and clarifications. At the NI the electrical requirements for the BST and customer signal are the same. The physical layer of the DS3 NI is delineated in the following specifications.

ANSI T1.404-1994	*Network-to-Customer Installation - DS3 Metallic Interface Specification*
ANSI T1.404a-1996	*Network-to-Customer Installation - DS3 Metallic Interface Specification (supplement)*
GR-342-CORE	*High-Capacity Digital Special Access Service Transmission Parameter Limits and Interface Combinations*

ANSI T1.404 applies to End-User (EU) interfaces and GR-342 applies to Carrier interfaces. A sketch of the DS3 EU customer NI is shown in Figure 4. The signal delivered to the NI by BST is identified as the BST signal, and the signal delivered to the NI by the customer is identified as the CI signal.

4.14 Optical Power Limitations

CLEC provided lasers shall not exceed +17.0 dBm in output power at 1550 nm (Class IIIb laser). In addition, the CLEC shall tell BST which class of laser that they will be utilizing.

4.15 Safety Requirements

The CLEC fiber optic system and required optical test equipment shall be registered and certified with the Department of Health, Education and Welfare Bureau of Radiological Health as specified in 21 CFR 1040.10. This document specifies performance requirements, labeling requirements and informational requirements. Documentation demonstrating system certification shall be available to assist in the determination of fiber optic safety precautions required to install, operate and maintain the system.

Table 0-2. Percentage of Occurrence for IOF SONET Zone 1

Architecture Descriptions	AL	FL	GA	KY	LA	MS	NC	SC	TN	BST
Switching Locations on the same OC-48 BLSR	46.7%	46.3%	49.6%	42.3%	36.1%	47.0%	47.8%	47.1%	49.1%	47.4%
Switching Locations on different, single node interconnected OC-48 BLSRs	18.7%	19.8%	21.2%	14.1%	18.0%	15.7%	15.9%	23.6%	16.4%	18.9%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	13.2%	14.2%	14.1%	9.0%	0.0%	8.0%	0.0%	16.4%	9.5%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	9.3%	6.6%	7.1%	14.1%	9.0%	15.7%	8.0%	11.8%	8.2%	9.5%
Switching Locations on the same OC-12 UPSR	8.0%	3.7%	1.6%	5.2%	10.7%	8.2%	4.5%	4.5%	3.1%	5.1%
Switching Locations on different, single node interconnected OC-12 UPSRs	2.7%	0.0%	0.0%	1.7%	3.6%	1.6%	2.2%	2.2%	1.5%	1.7%
Switching Locations on the same OC-3+ UPSR	2.7%	3.7%	1.6%	1.7%	3.6%	1.6%	2.2%	1.1%	1.5%	1.7%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	5.4%	3.7%	1.6%	3.4%	3.6%	3.3%	2.2%	1.1%	1.5%	1.7%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	2.6%	1.4%	1.6%	0.9%	2.2%	2.3%	3.7%	3.5%	1.1%	1.8%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	1.3%	0.7%	0.8%	0.5%	1.1%	1.2%	1.8%	1.7%	0.5%	0.9%
Switching Locations on the same OC-3 UPSR	1.3%	0.7%	0.8%	0.5%	1.1%	1.2%	1.8%	1.7%	0.5%	0.9%
Switching Locations on an OC-3 Pt.-to-Pt. System	1.3%	0.0%	0.0%	0.9%	1.1%	1.2%	1.8%	1.0%	0.0%	0.6%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	0.5%	1.1%	1.2%	0.0%	0.7%	0.0%	0.4%
Total Zone 1	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 0-3. Percentage of Occurrence for IOF SONET - Zone 2

Architecture Descriptions	AL	FL	GA	KY	LA	MS	NC	SC	TN	BST
Switching Locations on the same OC-48 BLSR	42.1%	43.6%	48.1%	39.6%	32.2%	43.0%	44.3%	44.2%	47.1%	44.5%
Switching Locations on different, single node interconnected OC-48 BLSRs	16.8%	18.7%	20.6%	13.2%	16.1%	14.3%	14.8%	22.1%	15.7%	17.8%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	12.4%	13.7%	13.2%	8.0%	0.0%	7.4%	0.0%	15.7%	8.9%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	8.4%	6.2%	6.9%	13.2%	8.0%	14.3%	7.4%	11.0%	7.8%	8.9%
Switching Locations on the same OC-12 UPSR	10.9%	5.2%	2.3%	7.2%	14.2%	11.3%	6.2%	6.3%	4.4%	7.3%
Switching Locations on different, single node interconnected OC-12 UPSRs	3.6%	0.0%	0.0%	2.4%	4.7%	2.3%	3.1%	3.1%	2.2%	2.4%
Switching Locations on the same OC-3+ UPSR	3.6%	5.2%	2.3%	2.4%	4.7%	2.3%	3.1%	1.6%	2.2%	2.4%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	7.3%	5.2%	2.3%	4.8%	4.7%	4.5%	3.1%	1.6%	2.2%	2.4%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	2.9%	1.7%	1.9%	1.1%	2.4%	2.6%	4.3%	4.1%	1.3%	2.2%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	1.4%	0.8%	1.0%	0.6%	1.2%	1.3%	2.1%	2.0%	0.7%	1.1%
Switching Locations on the same OC-3 UPSR	1.4%	0.8%	1.0%	0.6%	1.2%	1.3%	2.1%	2.0%	0.7%	1.1%
Switching Locations on an OC-3 Pt.-to-Pt. System	1.4%	0.0%	0.0%	1.1%	1.2%	1.3%	2.1%	1.2%	0.0%	0.7%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	0.6%	1.2%	1.3%	0.0%	0.8%	0.0%	0.4%
Total Zone 2	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 0-4. Percentage of Occurrence for IOF SONET - Zone 3

Architecture Descriptions	AL	FL	GA	KY	LA	MS	NC	SC	TN	BST
Switching Locations on the same OC-48 BLSR	26.4%	37.1%	39.4%	28.9%	19.5%	27.9%	28.5%	31.4%	39.8%	34.3%
Switching Locations on different, single node interconnected OC-48 BLSRs	10.5%	15.9%	16.9%	9.6%	9.8%	9.3%	9.5%	15.7%	13.3%	13.7%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	10.6%	11.3%	9.6%	4.9%	0.0%	4.8%	0.0%	13.3%	6.9%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	5.3%	5.3%	5.6%	9.6%	4.9%	9.3%	4.8%	7.8%	6.6%	6.9%
Switching Locations on the same OC-12 UPSR	17.0%	7.7%	4.7%	13.2%	21.6%	18.3%	10.0%	9.8%	7.9%	11.8%
Switching Locations on different, single node interconnected OC-12 UPSRs	5.7%	0.0%	0.0%	4.4%	7.2%	3.7%	5.0%	4.9%	3.9%	3.9%
Switching Locations on the same OC-3+ UPSR	5.7%	7.7%	4.7%	4.4%	7.2%	3.7%	5.0%	2.5%	3.9%	3.9%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	11.3%	7.7%	4.7%	8.8%	7.2%	7.3%	5.0%	2.5%	3.9%	3.9%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	7.2%	4.0%	6.3%	3.2%	5.9%	6.8%	11.0%	10.2%	3.7%	5.8%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	3.6%	2.0%	3.2%	1.6%	2.9%	3.4%	5.5%	5.1%	1.9%	2.9%
Switching Locations on the same OC-3 UPSR	3.6%	2.0%	3.2%	1.6%	2.9%	3.4%	5.5%	5.1%	1.9%	2.9%
Switching Locations on an OC-3 Pt.-to-Pt. System	3.6%	0.0%	0.0%	3.2%	2.9%	3.4%	5.5%	3.1%	0.0%	1.7%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	1.6%	2.9%	3.4%	0.0%	2.0%	0.0%	1.2%
Total Zone 3	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 0-5. Percentage of Occurrence for IOF SONET

Interoffice SONET Configurations										
Architecture Descriptions	**AL RG 6**	**FL RG 10-12**	**GA RG 12**	**KY RG 4-5**	**LA RG 13-17**	**MS RG 11-13**	**NC RG 7-10**	**SC RG 6-7**	**TN RG 4-5**	**BST**
Switching Locations on the same OC-48 BLSR	46.7%	46.3%	49.6%	42.3%	36.1%	47.0%	47.8%	47.1%	49.1%	47.4%
Switching Locations on different, single node interconnected OC-48 BLSRs	18.7%	19.8%	21.2%	14.1%	18.0%	15.7%	15.9%	23.6%	16.4%	18.9%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	13.2%	14.2%	14.1%	9.0%	0.0%	8.0%	0.0%	16.4%	9.5%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	9.3%	6.6%	7.1%	14.1%	9.0%	15.7%	8.0%	11.8%	8.2%	9.5%
Switching Locations on the same OC-12 UPSR	8.0%	3.7%	1.6%	5.2%	10.7%	8.2%	4.5%	4.5%	3.1%	5.1%
Switching Locations on different, single node interconnected OC-12 UPSRs	2.7%	0.0%	0.0%	1.7%	3.6%	1.6%	2.2%	2.2%	1.5%	1.7%
Switching Locations on the same OC-3+ UPSR	2.7%	3.7%	1.6%	1.7%	3.6%	1.6%	2.2%	1.1%	1.5%	1.7%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	5.4%	3.7%	1.6%	3.4%	3.6%	3.3%	2.2%	1.1%	1.5%	1.7%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	2.6%	1.4%	1.6%	0.9%	2.2%	2.3%	3.7%	3.5%	1.1%	1.8%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	1.3%	0.7%	0.8%	0.5%	1.1%	1.2%	1.8%	1.7%	0.5%	0.9%
Switching Locations on the same OC-3 UPSR	1.3%	0.7%	0.8%	0.5%	1.1%	1.2%	1.8%	1.7%	0.5%	0.9%
Switching Locations on an OC-3 Pt.-to-Pt. System	1.3%	0.0%	0.0%	0.9%	1.1%	1.2%	1.8%	1.0%	0.0%	0.6%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	0.5%	1.1%	1.2%	0.0%	0.7%	0.0%	0.4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 0-6. Percentage of Occurrence for IOF SONET

Architecture Descriptions	AL RG 5	FL RG 5-9	GA RG 7	KY RG 3	LA RG 9-12	MS RG 6-10	NC RG 5-6	SC RG 4-5	TN RG 3	BST
Switching Locations on the same OC-48 BLSR	42.1%	43.6%	48.1%	39.6%	32.2%	43.0%	44.3%	44.2%	47.1%	44.5%
Switching Locations on different, single node interconnected OC-48 BLSRs	16.8%	18.7%	20.6%	13.2%	16.1%	14.3%	14.8%	22.1%	15.7%	17.8%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	12.4%	13.7%	13.2%	8.0%	0.0%	7.4%	0.0%	15.7%	8.9%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	8.4%	6.2%	6.9%	13.2%	8.0%	14.3%	7.4%	11.0%	7.8%	8.9%
Switching Locations on the same OC-12 UPSR	10.9%	5.2%	2.3%	7.2%	14.2%	11.3%	6.2%	6.3%	4.4%	7.3%
Switching Locations on different, single node interconnected OC-12 UPSRs	3.6%	0.0%	0.0%	2.4%	4.7%	2.3%	3.1%	3.1%	2.2%	2.4%
Switching Locations on the same OC-3+ UPSR	3.6%	5.2%	2.3%	2.4%	4.7%	2.3%	3.1%	1.6%	2.2%	2.4%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	7.3%	5.2%	2.3%	4.8%	4.7%	4.5%	3.1%	1.6%	2.2%	2.4%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	2.9%	1.7%	1.9%	1.1%	2.4%	2.6%	4.3%	4.1%	1.3%	2.2%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	1.4%	0.8%	1.0%	0.6%	1.2%	1.3%	2.1%	2.0%	0.7%	1.1%
Switching Locations on the same OC-3 UPSR	1.4%	0.8%	1.0%	0.6%	1.2%	1.3%	2.1%	2.0%	0.7%	1.1%
Switching Locations on an OC-3 Pt.-to-Pt. System	1.4%	0.0%	0.0%	1.1%	1.2%	1.3%	2.1%	1.2%	0.0%	0.7%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	0.6%	1.2%	1.3%	0.0%	0.8%	0.0%	0.4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 0-7. Percentage of Occurrence for IOF SONET

Architecture Descriptions	AL RG 1-4	FL RG 1-4	GA RG 2-5	KY RG 1-2	LA RG 1-8	MS RG 1-5	NC RG 1-4	SC RG 1-3	TN RG 1-2	BST
Switching Locations on the same OC-48 BLSR	26.4%	37.1%	39.4%	28.9%	19.5%	27.9%	28.5%	31.4%	39.8%	34.3%
Switching Locations on different, single node interconnected OC-48 BLSRs	10.5%	15.9%	16.9%	9.6%	9.8%	9.3%	9.5%	15.7%	13.3%	13.7%
Switching Locations on different, dual node interconnected OC-48 BLSRs	0.0%	10.6%	11.3%	9.6%	4.9%	0.0%	4.8%	0.0%	13.3%	6.9%
Switching Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR	5.3%	5.3%	5.6%	9.6%	4.9%	9.3%	4.8%	7.8%	6.6%	6.9%
Switching Locations on the same OC-12 UPSR	17.0%	7.7%	4.7%	13.2%	21.6%	18.3%	10.0%	9.8%	7.9%	11.8%
Switching Locations on different, single node interconnected OC-12 UPSRs	5.7%	0.0%	0.0%	4.4%	7.2%	3.7%	5.0%	4.9%	3.9%	3.9%
Switching Locations on the same OC-3+ UPSR	5.7%	7.7%	4.7%	4.4%	7.2%	3.7%	5.0%	2.5%	3.9%	3.9%
Switching Locations on single node interconnected OC-48 BLSR and OC-12 UPSR	11.3%	7.7%	4.7%	8.8%	7.2%	7.3%	5.0%	2.5%	3.9%	3.9%
Switching Locations on single node interconnected OC-48 BLSR and OC-3 UPSR	7.2%	4.0%	6.3%	3.2%	5.9%	6.8%	11.0%	10.2%	3.7%	5.8%
Switching Locations on single node interconnected OC-12 UPSR and OC-3 UPSR	3.6%	2.0%	3.2%	1.6%	2.9%	3.4%	5.5%	5.1%	1.9%	2.9%
Switching Locations on the same OC-3 UPSR	3.6%	2.0%	3.2%	1.6%	2.9%	3.4%	5.5%	5.1%	1.9%	2.9%
Switching Locations on an OC-3 Pt.-to-Pt. System	3.6%	0.0%	0.0%	3.2%	2.9%	3.4%	5.5%	3.1%	0.0%	1.7%
Switching Locations on back to back OC-3 Pt.-to-Pt. Systems	0.0%	0.0%	0.0%	1.6%	2.9%	3.4%	0.0%	2.0%	0.0%	1.2%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Based on the expected amount of Lucent and Fujitsu SONET equipment to be deployed in the interoffice network, the following table defines assumptions for percentages of occurrence for all zones:

Table 0-8. Percentage of Occurrence for Deriving DS1s from IOF SONET

Architecture Descriptions Transporting DS1s on SONET (one per each end)	AL	FL	GA	KY	LA	MS	NC	SC	TN	BST
DS1 on OC-3 (DDM-2000)	70	40	50	70	70	70	70	75	70	65
DS1 on OC-3 (FLM-150)	30	60	50	30	30	30	30	25	30	35
DS1 on OC-12 (DDM-2000)	70	40	50	70	70	70	70	75	70	65
DS1 on OC-12 (FLM-600)	30	60	50	30	30	30	30	25	30	35
DS1 on OC-48 (FT-2000)	70	40	50	70	70	70	70	75	70	65
DS1 on OC-48 (FLM-2400)	30	60	50	30	30	30	30	25	30	35

The DCS type quantities and percentages by state are shown in the table below:

Digital Cross-connect System (DCS) Types by State

DCSs by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	5	65	17	7	37	15	13	22	17	198
DSC DEX CS1	9	40	0	0	0	2	1	7	0	59
TELLABS 532	4	40	18	6	0	0	28	1	1	98
Total 1/0 DCSs	**18**	**145**	**35**	**13**	**37**	**17**	**42**	**30**	**18**	**355**
W-DCSs										
ALCATEL 1631	4	2	5	0	0	0	0	1	0	12
ATT DACS IV	0	41	34	6	17	2	12	13	8	133
TELLABS TITAN 5500	1	18	3	4	0	0	0	0	15	41
Total W-DCSs	**5**	**61**	**42**	**10**	**17**	**2**	**12**	**14**	**23**	**186**

DCS % by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	27.8%	44.8%	48.6%	53.8%	100.0%	88.2%	31.0%	73.3%	94.4%	55.8%
DSC DEX CS1	50.0%	27.6%	0.0%	0.0%	0.0%	11.8%	2.4%	23.3%	0.0%	16.6%
TELLABS 532	22.2%	27.6%	51.4%	46.2%	0.0%	0.0%	66.7%	3.3%	5.6%	27.6%
Total 1/0 DCSs	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
W-DCSs										
ALCATEL 1631	80.0%	3.3%	11.9%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	6.5%
ATT DACS IV	0.0%	67.2%	81.0%	60.0%	100.0%	100.0%	100.0%	92.9%	34.8%	71.5%
TELLABS TITAN 5500	20.0%	29.5%	7.1%	40.0%	0.0%	0.0%	0.0%	0.0%	65.2%	22.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1/0 DCS Percentage of Occurrence on Channelized DS1s

Zones

State	1	2	3	Total
AL	15%	9%	0%	**11%**
FL	60%	76%	58%	**62%**
GA	57%	56%	14%	**54%**
KY	8%	N/A	4%	**6%**
LA	27%	28%	7%	**24%**
MS	30%	N/A	18%	**25%**
NC	50%	61%	23%	**49%**
SC	65%	68%	37%	**63%**
TN	23%	14%	3%	**19%**
BS	**45%**	**45%**	**19%**	**41%**

W-DCS Percentage of Occurrence on Channelized DS3s

Zones

State	1	2	3	Total
AL	21%	24%	0%	**21%**
FL	45%	25%	20%	**41%**
GA	80%	50%	15%	**70%**
KY	66%	N/A	33%	**55%**
LA	61%	43%	24%	**49%**
MS	44%	N/A	2%	**29%**
NC	16%	39%	3%	**19%**
SC	96%	83%	33%	**86%**
TN	12%	0%	0%	**8%**
BS	**47%**	**41%**	**16%**	**43%**

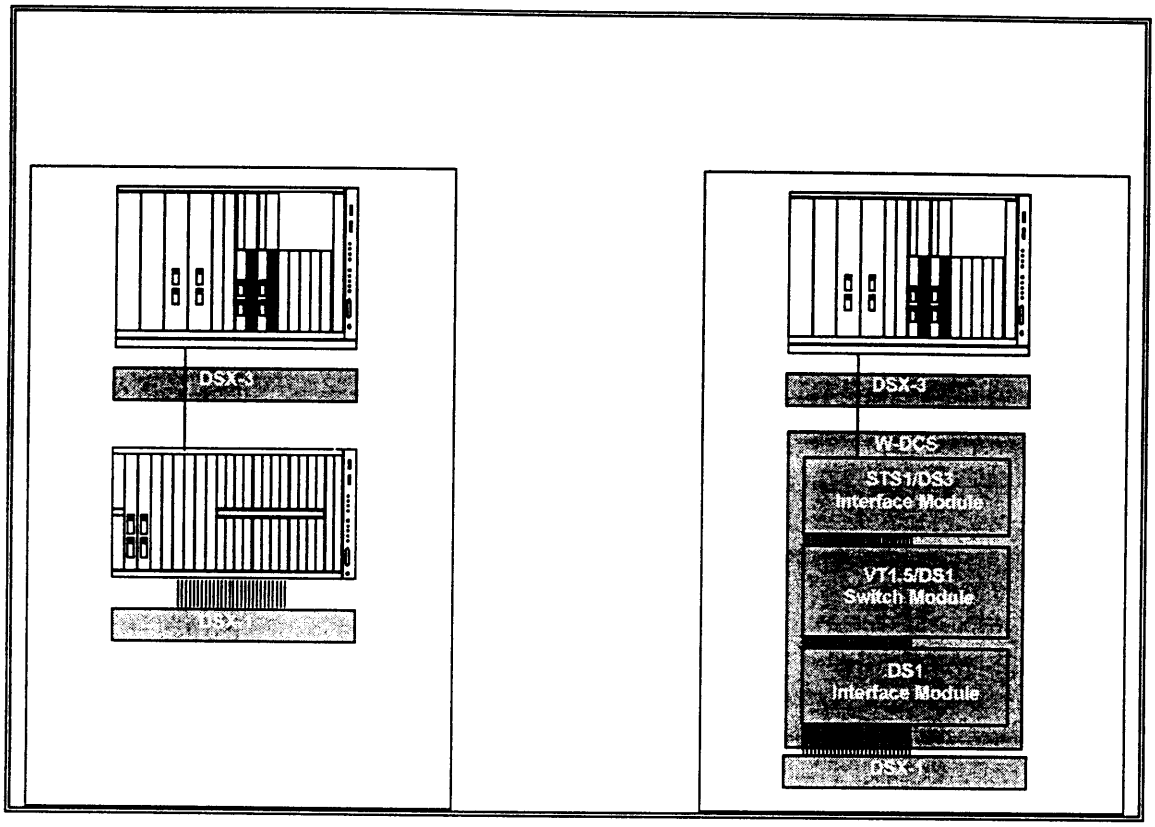


Figure II-1. UC-DS3 Architecture Examples

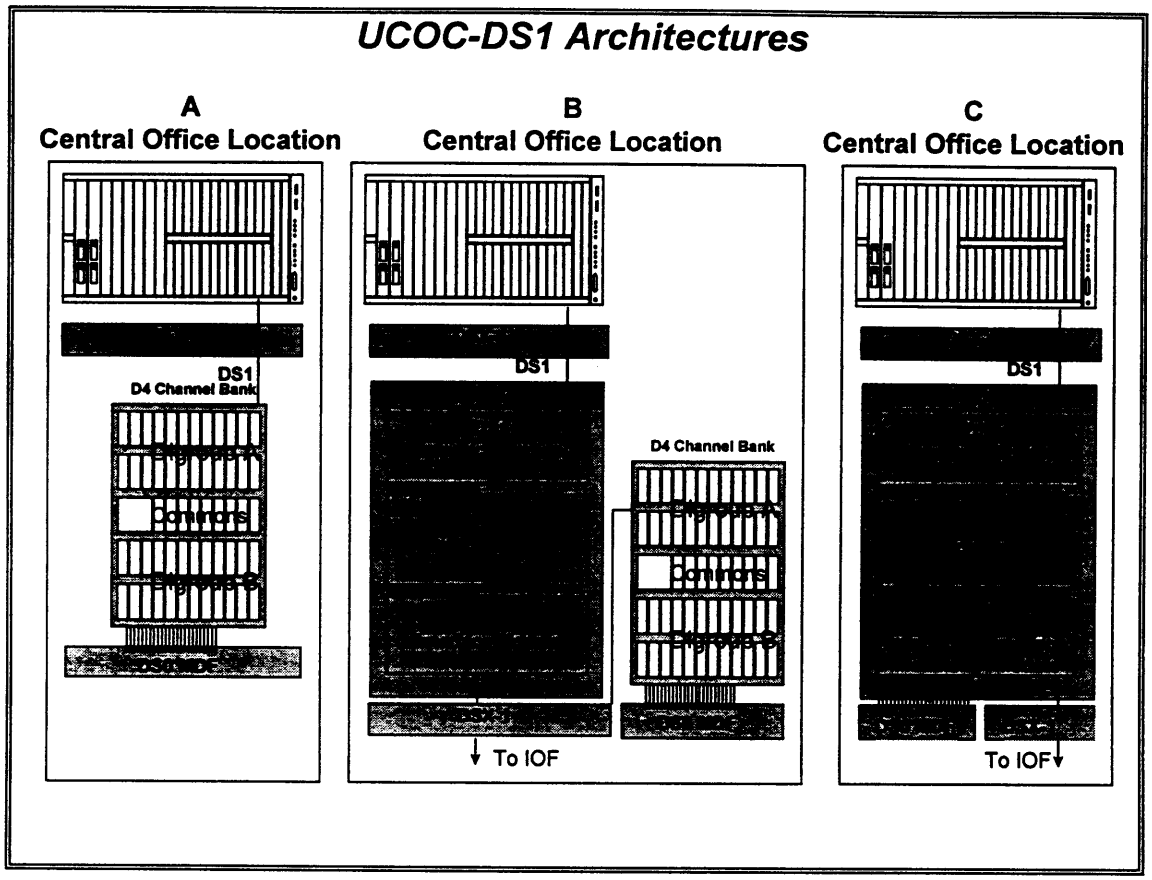


Figure II-2. **UC-DS1 Architecture Examples**

B. Operational Support Systems (OSS) Requirements

- Existing: TIRKS, NMA, WFA, PLRMS, PWS
- New: None

C. Software:

- None

III. PERFORMANCE STANDARDS/RELIABILITY

B. General Description of Performance Standards and Reliability (include "parity" requirements)

Service Performance Objectives:

- There will not be any specified performance objectives for this UNE Combo. However, at the request of the customer, if made prior to the installation of the facilities, BellSouth will attempt to estimate the transmission loss of the channel at the customer's intended transmission wavelength: provided, however, that BellSouth does not warrant that the customer's channel will operate at that estimated loss or that the transmission loss will remain constant during the period in which the customer obtains the facilities from BellSouth.

Diversity Requirements:

- No requirements for UNEs but some level of diversity will exist in BST network (embedded and forward looking)

Performance Monitoring:

- None

Special Considerations:

- Billing Guarantees do not apply - there will be CABS cost to exclude UNEs from current processes

IV. ORDERING, ADMINISTRATION AND PROVISIONING (OA&P)

A. Intervals

- Firm Order Confirmation (FOC)
  Seven (7) days

- Targeted Installation (inclusive of FOC)
  Thirty (30) days

Notes and Rationale:

The FOC is based on a five-day service inquiry, plus two-day administration time.

The targeted installation comprises the FOC plus a twenty-three day network provisioning requirement.

The above intervals are based on receipt of a clean manual order. A Service Inquiry will be required only for DS3. An Engineering Job will be required. If equipment is required, then a field vendor will be involved. This will affect the installation interval.

Expedite charge for short intervals will apply. These products are under development at this time.

C. Description of Centers affected and their roles

Local Carrier Service Center (LCSC)
LSR will be received, Service Order Issuance, Send FOC (Firm order confirmation) to CLEC (Competitive Local Exchange Carrier)

Circuit Capacity Management (CCM)
Service Inquiry received and answered, TIRKS records prepared, facilities and equipment installed

Circuit Provisioning Group (CPG)
Circuit Designed, WORD Document Issued, DLR generated to CLEC

Outside Plant Construction (OSPC)
Circuit Installed based on WORD; Circuit Repaired based on WFA ticket

CO Operations
Circuit Installed based on WORD

Access Customer Advocacy Center (ACAC)
Receive Trouble Reports, Issue WFA ticket

C. *Process Flow*

Detailed in Methods and Procedures.

V. LCSC

The LCSC is the CLECs' point of contact for ordering and billing of Unbundled Elements. The LCSC Service Representative will:

- Screen the Line Service Request (LSR) for accuracy and completeness.

- Clarify any error conditions with the CLEC.

- Issue the service order.

- Render the Firm Order Confirmation (FOC) to the CLEC.

- Respond to CLEC bill inquiries and resolve CLEC initiated disputes.

VI. RSOS

The RSOS representative works directly with the ICS staff and the Project team. The RSOS representative develops service orders to support facility based services, requests edits to support accurate issuance, and performs service order testing prior to implementation of the service.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of access to interoffice transmission facilities, including high-capacity transport and dark fiber.

RESPONSE: Responsive documents are attached.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 47

ATTACHMENT

TR 73603

BELLSOUTH TELECOMMUNICATIONS

Unbundled Dark Fiber (UDF) Technical Specifications

Technical Reference

February, 1999
Issue A

NOTICE

This Technical Reference describes Unbundled Dark Fiber (UDF). This Unbundled Network Element (UNE) can provide a Competive Local Exchange Carrier (CLEC) a fiber transmission path between customer designated preimises and a BellSouth Telecommunications, Inc. (BST) Serving Wire Center or between BST Central Offices.

BellSouth Telecommunications, Inc., reserves the right to revise this document for any reason, including but not limited to, conformity with standards promulgated by various governmental or regulatory agencies, utilization of advances in the state of the technical arts, or the reflection of changes in the design of any equipment, techniques, or procedures described or referred to herein. Liability to anyone arising out of use or reliance upon any information set forth herein is expressly disclaimed, and no representations or warranties, expressed or implied, are made with respect to the accuracy or utility of any information set forth herein.

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If further information is required, please contact:

Director – Transport Systems Engineering
BellSouth Telecommunications, Inc.
1884 Data Drive
Birmingham, Alabama 35244

Unbundled Dark Fiber (UDF) Technical Specifications

CONTENTS

Unbundled Dark Fiber (UDF)
Technical Specifications

1. General

This document provides the technical specifications for Unbundled Dark Fiber (UDF) offered by BellSouth Telecommunications, Inc. (BST). This Unbundled Network Element (UNE) can provide a Competitive Local Exchange Carrier (CLEC) a fiber transmission path between a customer designated premises and a BST Serving Wire Center or between BST Central Offices. This service is sometimes referred to as Dry Fiber service but will be referred to as Dark Fiber service in this document. The term "dry" applies to the absence of DC power, whereas the term "dark" applies to the absence of regeneration.

1.1 Scope

This Technical Reference (TR) provides the technical specifications necessary for compatible operation between BST and CLECs. The requirements in this document were developed to establish a practical interface. Compliance with these specifications should provide a satisfactory interface in a high percentage of installations. If cases arise that have not been adequately addressed in this document, any resulting problems should be resolved through the cooperation of the user, BST and suppliers. BST encourages customer participation to ensure an orderly, functional and mutually trouble-free interface at all locations.

1.2 Use of This Document

Technical specifications have been established based upon Industry Standards developed by the American National Standards Institute (ANSI) and Bellcore. This TR articulates BST variations from these standards and provides clarification of specification and performance requirements as necessary.

2. Service Description

UDF service is offered as a point-to-point arrangement between a customer designated premises and BST Serving Wire Center or between BST Central Offices. UDF is offered without signal regeneration to compensate for signal losses. The service arrangement consists of four optical fibers and fiber terminating equipment as shown in Figure 1 and 2. UDF service will be routed through a BST Central Office for testing and maintenance functions. Current polices concerning recombination will be adhered to.

3. Network Rearrangements

BST reserves the right to rearrange its network and to modify the manner in which it provides service in order to meet its overall service requirements. This includes, but is not limited to, the right to engineer and construct its fiber optic facilities in accordance with its normal operations without the requirement to modify its materials, splicing techniques, or planned facility rearrangements to suit a specific customer request.

4. Fiber Transmission Media

UDF service shall be provided via single−mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. The conventional dispersion−unshifted single−mode fiber (also known as EIA/TIA Class IVa fiber) shall generally meet the requirements detailed in Bellcore GR−20−CORE, *Generic Requirements for Optical Fiber and Optical Fiber Cables,* and ITU Recommendation G.652, *Characteristics of a Single−Mode Optical Fiber Cable.*

4.1 Operating Wavelengths

The service is provided over BST single−mode fiber optic cable which support operating wavelengths of 1310 nanometers (nm) and 1550 nm.

4.2 Typical Performance Characteristics

Table 1 provides typical characteristics of optical fiber and components commonly utilized in BST's network:

Table 1 − Typical Technical Characteristics of BST Optical Fiber and Components

Wavelength λ	1310 nm	1550 nm
Typical Fiber Loss	0.5 dB/km	0.35 dB/km
Discrete Reflectance (Splices, Connectors)	−40.0 dB	−40.0 dB
Return Loss (Fiber Cable)	+24.0 dB	+24.0 dB
Medium Zero Dispersion Wavelength	1310 ± 3 nm	Not Applicable
Chromatic Dispersion (Fiber Cable)	3.5 ps/nm−km	18.0 ps/nm−km
Chromatic Dispersion Slope (Fiber Cable)	0.093 ps/(nm−km^2)	0.093 ps/(nm−km^2)
Polarization Mode Dispersion (Fiber Cable)	10 ps	10 ps

The transmission characteristics of a specific UDF application may differ from the above typical performance characteristics.

5. Mechanical Interface

At the four fiber Network Interface (NI), BST will provide duplexable SC type (EIA/TIA SCFOC/2.5) plug and jack type connectors. BST will install the connector jack to serve as the NI. BST and the customer must each provide connector plugs to terminate their fibers at the NI. Each connector plug will contain 2 fibers, one for each direction of transmission. The connector jack will be the demarcation point between BST and the Customer Installation (CI). Figure 3 depicts the Fiber Optic Mechanical Network Interface.

5.1 Optical Fiber Termination and Arrangement

Optical fibers are terminated at the customer premises in a BST approved and constructed cabinet or Fiber Distributing Frame (FDF). BST typically uses a "tray" type splice on the customer premises and connectorized fibers from that splice to the cabinet or FDF.

6. Optical Power Limitations

Customer provided lasers shall not exceed +17.0 dBm in output power at 1550 nm (Class IIIb laser). In addition, the customer shall tell BST which class of laser (see Section 9) that they will be utilizing on their equipment.

7. Engineering Design Information

BST uses a design approach based on EIA/TIA-559, *Single-Mode Fiber Optic System Transmission Design,* and GR-253-CORE, *Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer,* procedures for elements in its network.

For the purpose of optical parameter specifications, optical interfaces are referred to the Optical System Reference Diagram (Points S and R) as shown in Figure 4.

Point S is a reference point on the optical fiber just after the transmitter (Tx) optical connector(C_{Tx}). Point R is a reference point on the optical fiber just before the receiver (Rx) optical connector (C_{Rx}). Points S and R provide a convenient separation of the optical link into a transmitter subsection, a receiver subsection, and an optical path subsection. Optical parameters are specified for the transmitter at point S, for the receiver at point R, and for the optical path between Points S and R. All parameter values specified are worst-case values and are to be met over the ranges of standard operating conditions (i.e., temperature and humidity ranges); they include aging effects. The parameters are specified relative to an optical section design objective of a bit error ratio (BER) better than $1x10^{-10}$.

To ensure proper system performance it is necessary to specify attenuation and dispersion characteristics of the optical path. This specification is assumed to represent worst-case values including losses due to splices, connectors, optical attenuators (if used), or other passive optical devices, and any additional cable margin to cover allowances for the following:

(1) future modifications to the cable configuration (additional splices, increased cable lengths, etc.),

(2) fiber cable performance variations due to environmental factors, and

(3) degradation of any connector, optical attenuator (if used), or other passive optical device when provided.

For customer design purposes, BST will provide the following information, when it is available:

- Length of the fiber cable including 3% extra for possible cable reroute.
- Loss budget value in decibels/kilometer (dB/km) of fiber cable at λ= 1310 nm or λ = 1550 nm.
- Number of splices constructed and anticipated number of maintenance splices.
- Loss budget value of each splice in dB/splice.
- Loss budget value of single-mode fiber jumper in dB/jumper.

- Loss budget value of jumpers and connectors at the Lightguide Terminal Interconnect Equipment (LTIE) in dB at customer premises.
- Loss budget values of jumpers and connectors in dB used to connect fibers in BST office(s).

Note: **Loss Budget Values are end–of–life values which account for aging and are usually greater than actual measured values.**

8. Regeneration

UDF service is offered without regeneration, so it will be incumbent that the customer maintain, adequate margins to insure proper working of the fiber optic system.

9. Safety Requirements

The fiber optic system and required optical test equipment used in conjunction with UDF service must be registered and certified with the Department of Health, Education and Welfare Bureau of Radiological Health as specified in 21 CFR 1040.10. This document specifies performance requirements, labeling requirements and informational requirements. Documentation demonstrating system certification shall be available to assist in the determination of fiber optic safety precautions required to install, operate and maintain the system.

Optical powers from lasers are also classified by the International Electrotechnical Commission (IEC). Depending on the potential danger, IEC 825 requires that all laser equipment be classified into one of the following classes; 1, 2, 3a, 3b, or 4. Because the minimum power limits for class 4 lasers are not used in telecommunications, they are not considered for the purposes of this document. The other classes of lasers, the power limitations and the accompanying safety requirements are summarized in Table 2 on the following page.

Table 2 – IEC 825–1 and 825–2 Classes of Lasers, Power Limits & Safety Requirements

Laser	Maximum Power Levels		Safety Requirements
	1310 nm	**1550 nm**	
Class 1	9.4 dBm	10.0 dBm	Inherently Safe • Protective housing to prevent higher than classified emission. • Safety interlock in the housing to prevent access to non–classified emission levels. • Classification labels on the product and in the promotional literature. • Caution labels on service panels, interlocked or not • User safety information in operator and service manuals.
Class 2[1]	NA	NA	NA
Class 3a	13.8 dBm	17.0 dBm	Safe unless viewing aids are used Additional requirements to all of the above: • Key control • Beam stop to automatically disable the laser if no access is required. • Audible or visible "Laser On" warning.
Class 3b	27.0 dBm	27.0 dBm	Additional requirements to all of the above: • Remote control switch to allow disabling the laser by a door circuit. • Aperture label to indicate the location of the radiation output.

Special precautions and requirements for installation and use of optical systems (including amplifiers) and a description of viewing aids are given in IEC 825–2.

[1] Class 2 is used for visible laser products emitting wavelengths from 400 to 700 nm, these requirements are not considered pertinent.

10. Maintenance

The customer must cooperatively disable (turn–off) any optical transmission equipment on a dark fiber arrangement whenever BST must perform maintenance on those facilities.

11. References

GR–20–CORE, Generic Requirements for Optical Fiber and Optical Fiber Cable, Issue 1, September, 1994

GR–63–CORE, Network Equipment–Building System (NEBS), Generic Equipment Requirements, Issue 1, October 1995

GR–253–CORE, Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer, Issue 2, December 1995

GR–326–CORE, Generic Requirements for Single–Mode Connectors and Jumper Assemblies, Issue 2, December 1996

Bellcore Technical References may be ordered by contacting:

Bellcore Customer Relations
8 Corporate Place – Room 3A–184
Piscataway, NJ 08854–4156
1–800–521–2673

EIA/TIA–559, Single–Mode Fiber Optic System Transmission Design

OFSTP–2, Effective Transmitter Output Power Coupled into Single–Mode Fiber Optic Cable

OFSTP–3, Fiber Optic Terminal Receiver Sensitivity and Maximum Receiver Input

OFSTP–10, Measurement of Dispersion Power Penalty in Single–Mode Systems

OFSTP–11, Measurement of Single Reflection Power Penalty for Fiber Optic Terminal Equipment

EIA/TIA documents may be ordered by contacting:

Telecommunications Industry Association
Engineering Department
2001 Pennsylvania Avenue N.W.
Washington, D.C. 20006
(202) 457–4966

IEC 825−1, Safety of Laser Products, Part 1: Equipment classification, requirements and user's guide, First Edition, 1993−11

IEC 825−2, Safety of Laser Products, Part 2: Safety of optical fiber communication systems, First Edition, 1993−09

ANSI Z136.2−1998, American National Standard for the Safe Use of Optical Fiber Communications Systems Utilizing Laser Diode and LED Sources

IEC and ANSI documents can be ordered from:

Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112−5704
(800) 854−7179

21 CFR 1040, Performance Standard for Laser Products

This document may be obtained by contacting:

Director, Division of Compliance
Bureau of Radiological Health
5600 Fishers Lane
Rockville, MD 20857

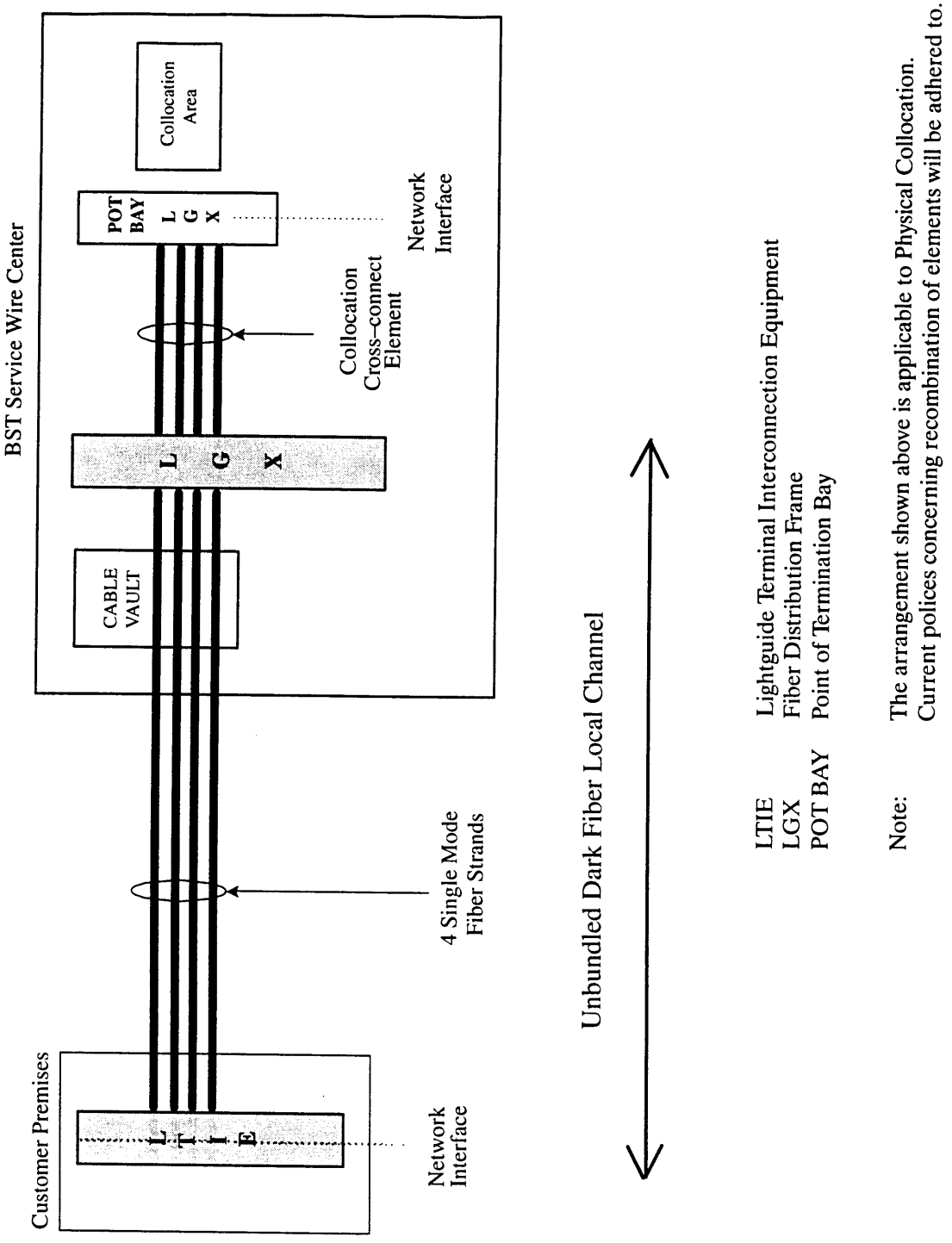


Figure 1 – Unbundled Dark Fiber Customer Premises to BST Serving Wire Center

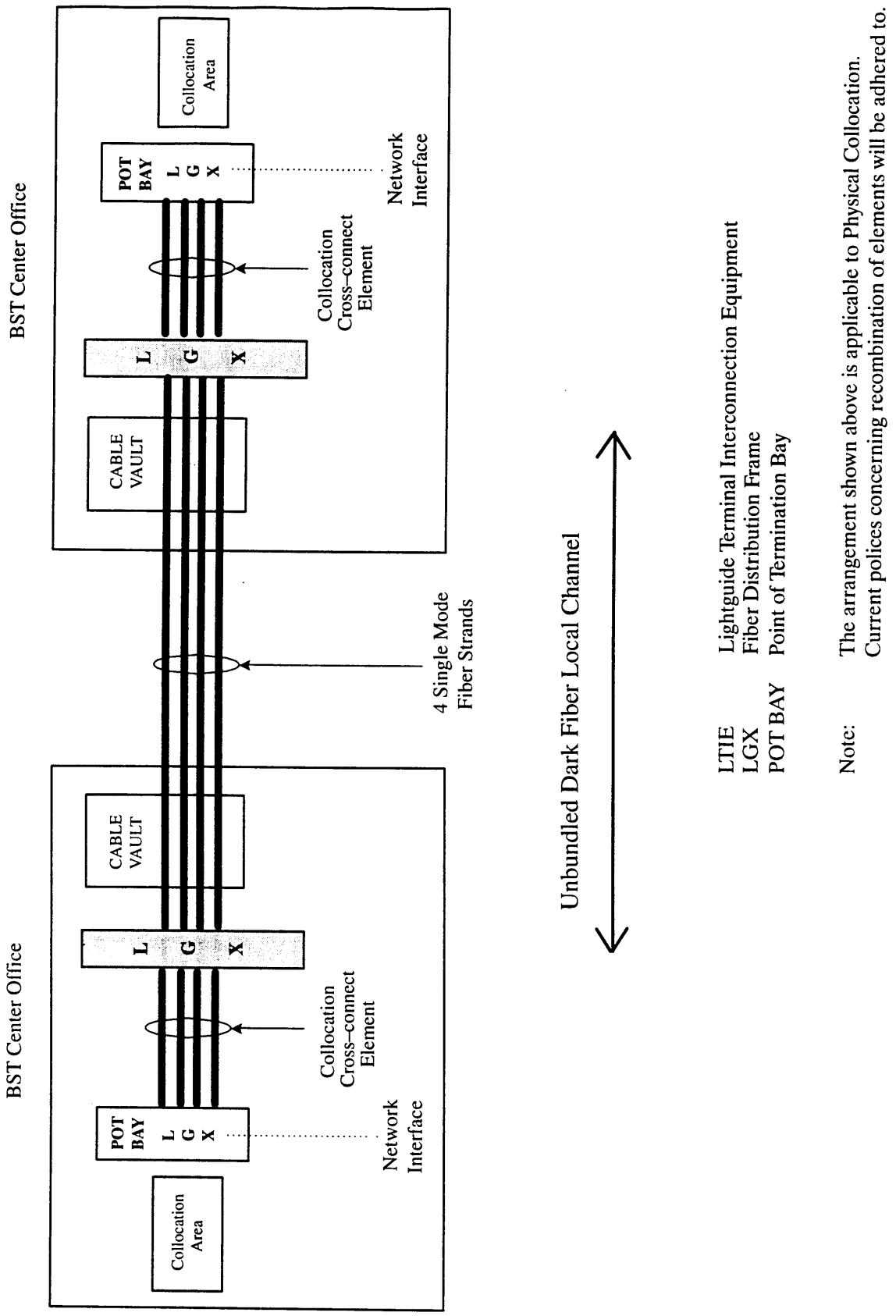
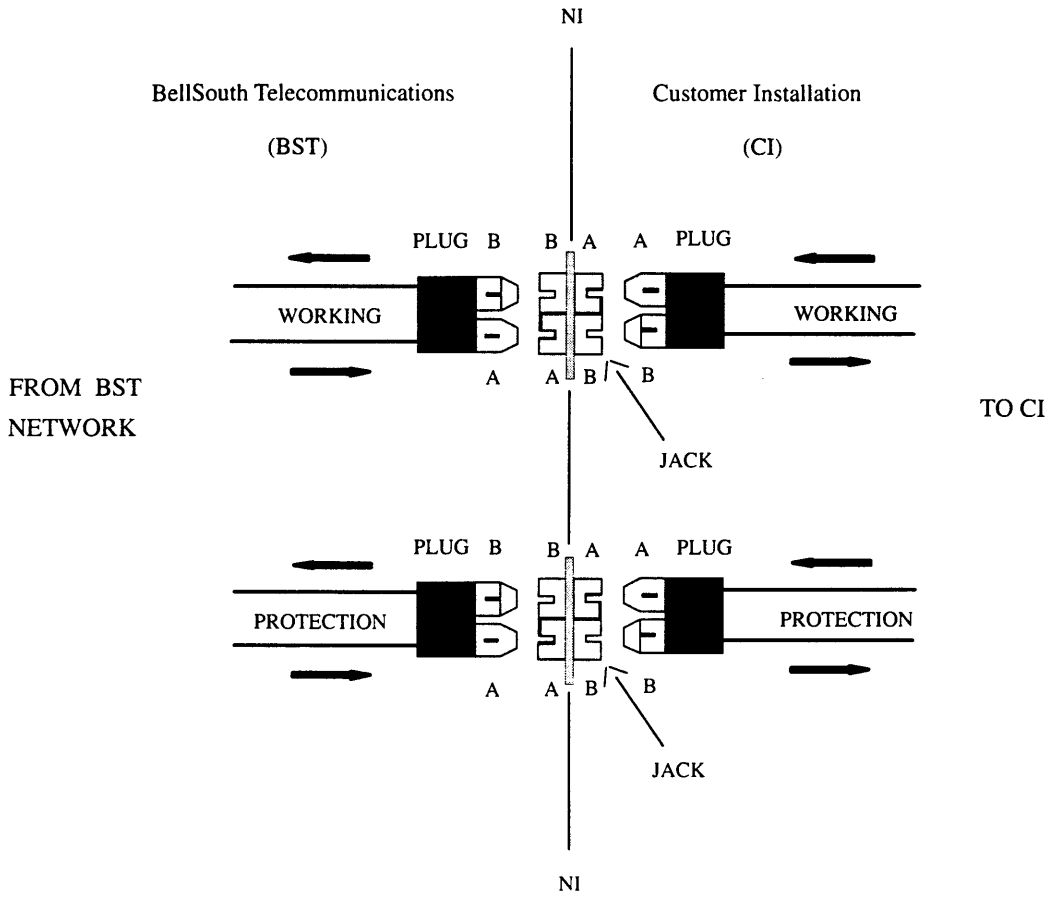


Figure 2 – Unbundled Dark Fiber BST Central Office to BST Central Office



NOTES:

1 LIGHT LEAVES "A" PLUG AND ENTERS "A" JACK

2 LIGHT LEAVES "B" JACK AND ENTERS "B" PLUG

3 JACK AT NI PROVIDED BY BST (OPTIONALLY MAY BE PART OF OTHER NETWORK EQUIPMENT)

4 A SINGLE FIBER IS USED FOR EACH DIRECTION OR TRANSMISSION

5 FOR 4 FIBER INTERFCE BOTH WORKING AND PROTECTION PROVIDED

➡ DIRECTION OF LIGHT

Figure 3 – 4 Fiber Optic Mechanical Network Interface

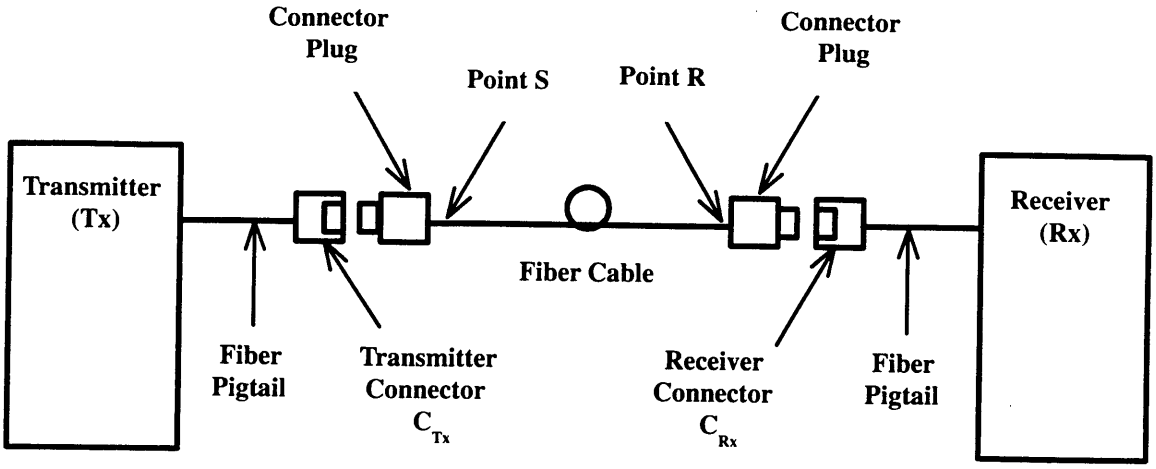


Figure 4 – Optical System Interfaces (Points S and R)

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Unbundled Dedicated Transport Interdepartmental Service Description Issue 8 January 24, 2000

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I MARKET SERVICE DESCRIPTION

Background:
Unbundled Network Elements (UNEs) were mandated by the U.S. Congress (1996 Telecom Act) in order to promote local telecommunications competition. The FCC through orders have defined UNEs and their uses. In order to qualify to purchase a UNE, the Competitive Local Exchange Company (CLEC) must provide and use the UNE for exchange and exchange access as well as collocate. Exchange and Exchange Access includes local, intraLATA toll, and transit traffic. Transit is defined as Switched Access traffic which utilizes BST's network to access another' network and includes CLEC to CLEC traffic, CLEC to Independent Company traffic, and CLEC to Interexchange Carrier traffic. It is the CLEC's responsibility to interconnect UNEs in order to provide its services. BST cannot restrict the services offered utilizing UNEs. Once purchased any telecommunications service, except enhanced services, can ride a UNE. BST has not connected UNEs, which are offered via Interconnection Agreement, unless a separate agreement is finalized.

UNEs can be used by a CLEC to (1) build its network and/or (2) for Local Interconnection. Local Interconnection is the interconnection of BST's network and the CLEC network at any technically feasible point.

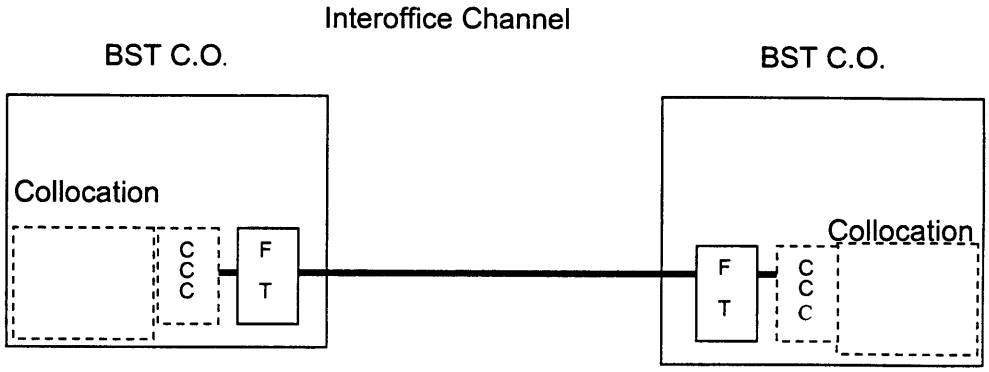
Dedicated Transport should be provisioned using the following rules:
RULE 1: At least one end of a UNE must terminate in collocation, except for channelized Local Channel UNEs.
RULE 2: The only connection allowed to a Channelized UNE facility multiplexer is the connection of a COCI to the Collocation, a COCI to a BellSouth switch or a COCI to a BellSouth facility termination.
RULE 3: BST does not connect tariffed services to UNEs.
RULE 4:
A. Dedicated Transport Local Channel and Interoffice Channel UNEs terminated to collocation should be treated like non-switched facilities.
B. Channelized Dedicated Transport UNEs terminating to a BST switch for local interconnection trunks should be treated like switched traffic. (FCC#1 Switched Access tariff USOCs should be used.) Self reported PIU/PLF/PLU should be used to bill appropriate tariff and contracts rates. The B part will be handled via Product Management and the Contract Database personnel. It does not require SME support.

A. Basic Service Features:

By definition Dedicated Transport is dedicated to a single customer. Unbundled Dedicated Transport is a point to point service consisting of four possible components: interoffice channel, local channel, loops, and channelization.

(1) **Definition: An Interoffice Channel provides a dedicated point to point transmission path, and it's associated electronics, between BST's wire centers**

or switches. Collocation is required at both ends of within a BST to BST configuration. Figure 1 represents a non-channelized Dedicated Transport Interoffice Channel.



FT – Facility Termination
CCC - Collocation Cross-Connect

FIGURE 1

(2) **Definition: Local Channel is the dedicated point to point transmission path and the associated electronics between the CLEC's Point of Presence (POP) and the POP's Serving Wire Center** Collocation is required at SWC. Figure 2 represents a non-channelized Dedicated Transport Local Channel UNE.

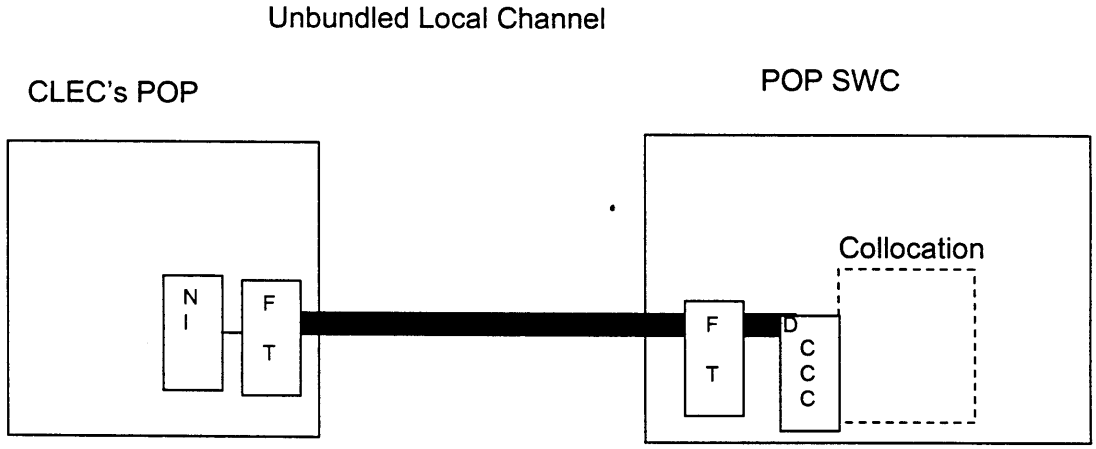


FIGURE 2

NI = Network Interface

(3) **Definition: Channelization is the function performed when a higher level facility is separated into lower level services, e.g. DS3 to DS1s or DS1 to DS0s.** The facility is said to be channelized. This can be accomplished through the use of a multiplexer or a Digital Cross-connect System (DCS). Once the basic channelization

system has been installed, channels can be activated all at once or on an as-needed basis. Like the tariffed service, this service is available where available (See NECA 4).

FIGURE 3
Unbundled Channelized Local Channel

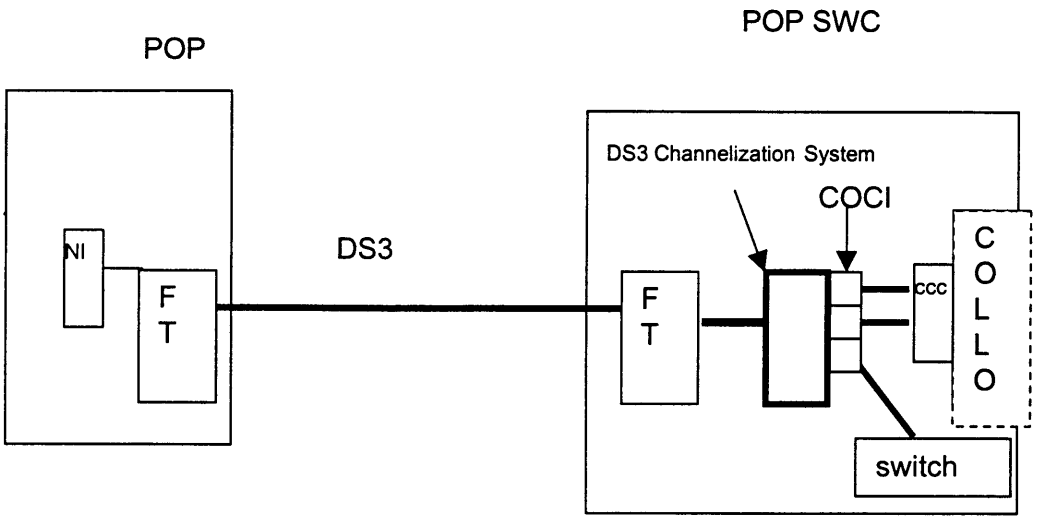


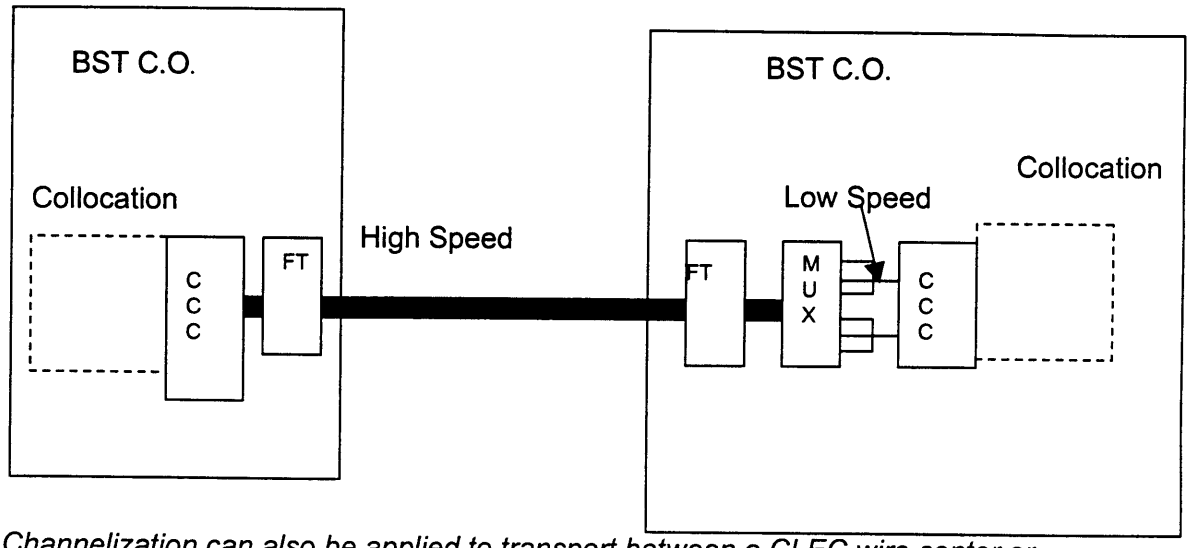
Figure 3 shows a DS3 Local Channel being channelized into DS1 interfaces through the use of a DS3 Channelization System (multiplexer) and Central Office Channel Interfaces (COCI).

(4) Both the Local Channel and the Interoffice Channel can be channelized through the use of a multiplexing device. In this arrangement the multiplexer can be on either end of

the interoffice facility depending on the customer's needs. Figure 4 shows an example of a channelized Interoffice Channel UNE.

FIGURE 4

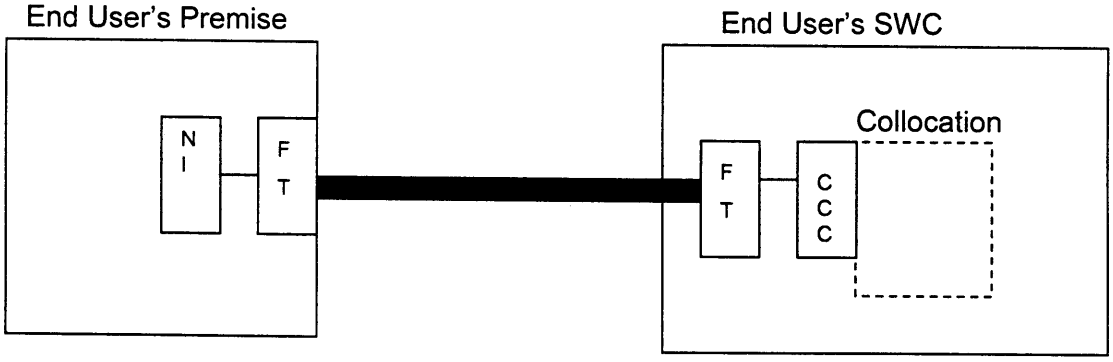
Unbundled Channelized Interoffice Channel



Note: Channelization can also be applied to transport between a CLEC wire center or switch location and a BST Central office. All examples within this document will show BST Central Offices.

(5) **A Loop is the dedicated point to point transmission path and the associated electronics between the end user's premises and the end user's serving wire center.** Collocation is required at SWC.

FIGURE 5



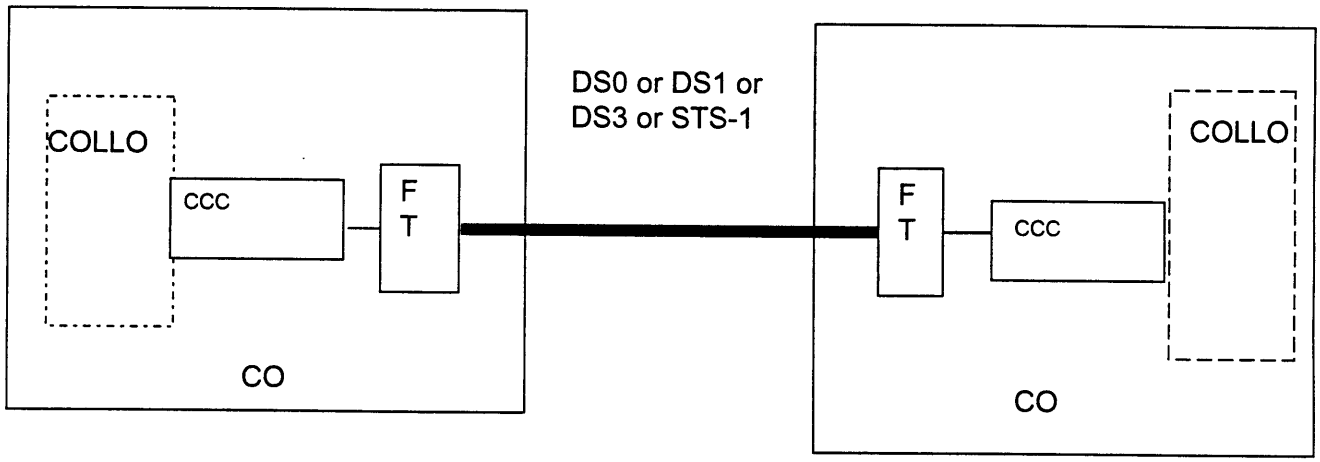
A. *Basic Service Capabilities, Deployment, & Pricing Structure:*

Unbundled Dedicated Transport will be offered as dedicated transport at multiple band widths with the **associated deployment priorities:**

(1) DS0, DS1, DS3, and STS-1 Interoffice Channel UNE services

Dedicated transport, point to point (wire center collocation to wire center collocation). There are four services. *NOTE: The Dedicated Transport Project Team has already developed the DS1 , DS3. STS-1 versions of this service.*

FIGURE 6



DS0, DS1, and DS3 have asynchronous electrical interfaces. STS-1 is an asynchronous SONOT based electrical interface offering.

Note: Is is assumed that the Collocation cross-connect required above have been developed by Collocation Project Team.

Pricing Structure:

Interoffice Transport - Dedicated - VG
2-Wire VG - per mile per month
2-Wire VG - Facility Termination per month
NRC - Facility Termination -1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge -1st
NRC - Facility Termination - Disconnect Charge -Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect--Add'l

OR

Interoffice Transport - Dedicated - DS0 - 56/64 KBPS
DS0 - per mile per month
DS0 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

OR
INTEROFFICE TRANSPORT - DEDICATED - DS1
DS1 - PER MILE PER MONTH
DS1 - FACILITY TERMINATION PER MONTH
NRC - FACILITY TERMINATION - 1ST
NRC - FACILITY TERMINATION - ADD'L
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - 1ST
NRC - FACILITY TERMINATION -DISCONNECT CHARGE - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT--1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT—ADD'L

OR
INTEROFFICE TRANSPORT - DEDICATED - DS3
DS3 - PER MILE PER MONTH
DS3 -FACILITY TERMINATION PER MONTH
NRC - DS3 - FACILITY TERMINATION -1ST
NRC - DS3 - FACILITY TERMINATION - ADD'L
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - 1ST
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT--1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT—ADD'L

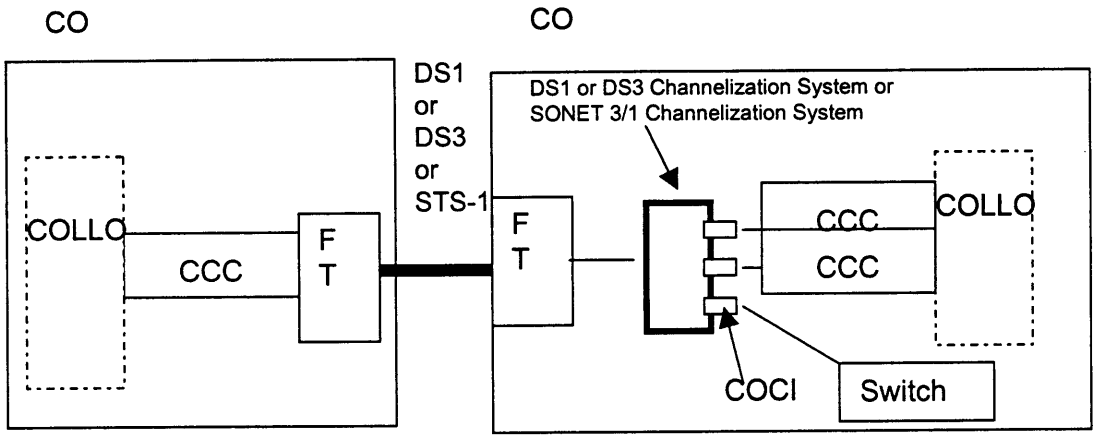
ORINTEROFFICE TRANSPORT - DEDICATED - STS-1
STS-1 - PER MILE PER MONTH
STS-1 -FACILITY TERMINATION PER MONTH
NRC - STS-1 - FACILITY TERMINATION -1ST
NRC - STS-1 - FACILITY TERMINATION - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L

Note: The disconnect charges for the first and additional facility termination and incremental manual service order need to be developed.

(2) Channelization DS3, STS-1, and DS1 Interoffice Channel UNE Service

Dedicated transport, point to point (wire center collocation to wire center collocation) with Channelization.

FIGURE 7



NOTE: This example shows the high speed leg as the interoffice facility. The alternative architecture with the low speed leg as interoffice facility is also allowed.

The initial set of Channelization (multiplexing) capabilities will be as follows:

- DS3 Channelization System - An element that channelizes a DS3 signal into 28 DS1s
- STS-1 Channelization System – An element that channelizes a STS-1 signal into 28 DS1s
- DS1 Channelization System - An element that channelizes a DS1 signal into 24 DS0s, usually a D4 channel bank.
- Central Office Channel Interfaces (COCI): Elements that can be activated on a channelization system.
  - DS1 can be activated on a DS3 Channelization System via a COCI.
  - Voice Grade (VG), Digital Data (OCU-DP), or ISDN BRI (BRITE) COCI can be used to activate a DS0 channel on a DS1 Channelization System, usually a D4 channel bank.
- AMI and B8ZS line coding with either Super Frame (SF) and Extended Super Frame (ESF) framing formats will be supported.

Pricing Structure:

Interoffice Transport - Dedicated - DS1
DS1 - per mile per month
DS1 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination -Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

DS1 Channelization (DS1 to DS0)
per Channelized System (24 DS0) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
- Interface
per OCU-DP(data) card per month (2.4-64kbs)
NRC - 1st
NRC - Add'l
per BRITE card per month
NRC - 1st
NRC - Add'l
per VG card per month (DS0)
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

Interoffice Transport - Dedicated - DS3
DS3 - per mile per month
DS3 -Facility Termination per month
NRC - DS3 - Facility Termination -1st
NRC - DS3 - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

DS3 Channelizaton (DS3 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

INTEROFFICE TRANSPORT - DEDICATED – STS-1
STS-1 - per mile per month
STS-1 -Facility Termination per month
NRC – STS-1 - Facility Termination -1st
NRC – STS-1 - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st

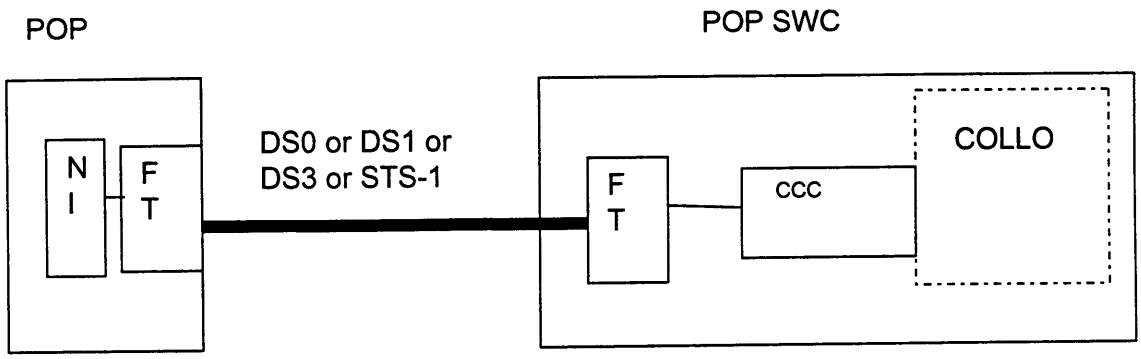
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

STS-1 Channelizaton (STS-1 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

(3) DS0, *DS1, DS3, and STS-1 Local Channel UNE services*

Dedicated transport, point to point (POP to POP SWC collocation). There are four services.

FIGURE 8



NI = Network Interface

Note: It is assumed that the Collocation cross-connect required have been developed by Collocation Project Team. The Dedicated Transport Project Team has already developed the DS1, DS3 and STS-1 BST to BST version of this service..

Pricing Structure:

Local Channel - Dedicated - 2-Wire VG
- Monthly Recurring per month
- NRC - 2-wire VG - 1st
- NRC - 2-wire VG -Add'l
- NRC - 2-Wire VG - Disconnect Chg - 1st
- NRC - 2-Wire VG - Disconnect Chg - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - 1st
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - 4-Wire VG
- Monthly Recurring per month
- NRC - 4-Wire VG - 1st
- NRC - 4-Wire VG - Add'l
- NRC - 4-Wire VG - Disconnect Chg - 1st
- NRC - 4-Wire VG - Disconnect Chg - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - 1st
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - DS1
- DS1 Monthly Recurring per month
- NRC - DS1 - 1st
- NRC - DS1 - Add'l
- NRC - DS1 - Disconnect Chg - 1st
- NRC - DS1 - Disconnect Chg - Add'l

NRC - DS1 - Incremental Charge--Manual Svc Order - 1st
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - DS3
DS3 Monthly Recurring per month
NRC - DS3 - Facility Termination - 1st
NRC - DS3 - Facility Termination - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - DS3 -Incremental Charge--Manual Svc Order - 1st
NRC - DS3 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

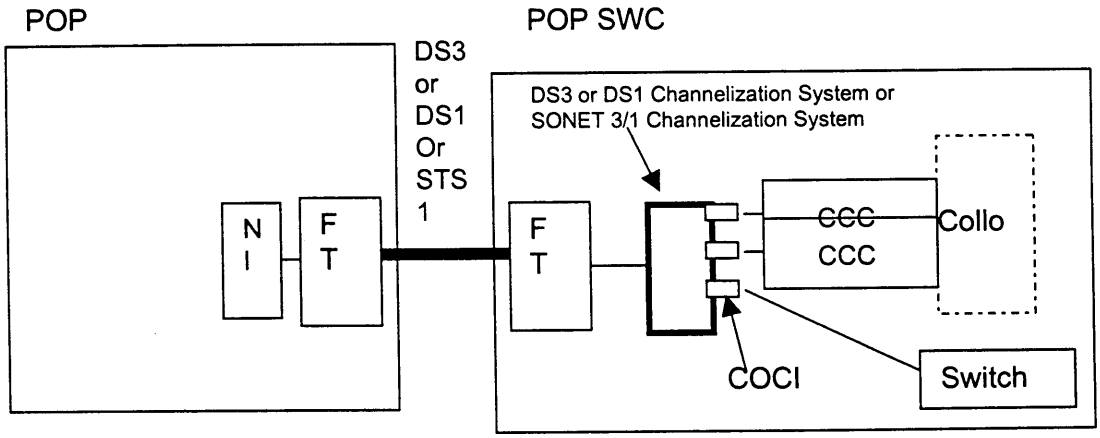
OR

LOCAL CHANNEL - DEDICATED – STS-1.....
STS-1 Monthly Recurring per month
NRC – STS-1 - Facility Termination - 1st
NRC - STS-1 - Facility Termination - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - STS-1 -Incremental Charge--Manual Svc Order - 1st
NRC - STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

(4) Channelized DS3/STS-1/DS1Local Channel UNE Service

Dedicated transport, point to point (POP to POP SWC collocation) with channelization. *Note: There are three services. NOTE: This example shows the high speed leg as the interoffice facility. The alternative architecture with the low speed leg as interoffice facility is also allowed.*

FIGURE 9



Pricing Structure:

Local Channel - Dedicated - DS1
DS1 Monthly Recurring per month
NRC - DS1 - 1st

NRC - DS1 - Add'l
NRC - DS1 - Disconnect Chg - 1st
NRC - DS1 - Disconnect Chg - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - 1st
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect

DS1 Channelization (DS1 to DS0)
per Channelized System (24 DS0) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
- Interface
per OCU-DP(data) card per month (2.4-64kbs)
NRC - 1st
NRC - Add'l
per BRITE card per month
NRC - 1st
NRC - Add'l
per VG card per month (DS0)
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

Local Channel - Dedicated - DS3
DS3 Monthly Recurring per month
NRC - DS3 - Facility Termination - 1st
NRC - DS3 - Facility Termination - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - DS3 -Incremental Charge--Manual Svc Order - 1st
NRC - DS3 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - DS3 - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT-ADD'L

DS3 Channelizaton (DS3 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

LOCAL CHANNEL - DEDICATED – STS-1.....
STS-1 Monthly Recurring per month
NRC – STS-1 - Facility Termination - 1st
NRC - STS-1 - Facility Termination - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - STS-1 -Incremental Charge--Manual Svc Order - 1st

NRC - STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

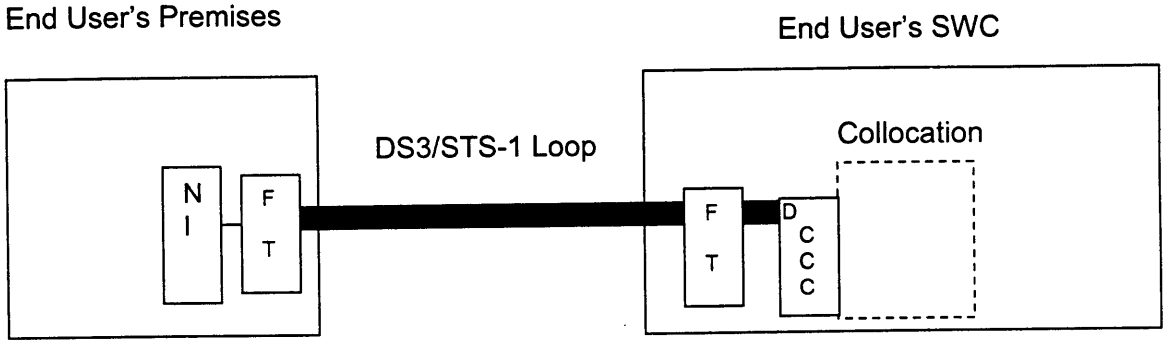
STS-1 Channelizaton (STS-1 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

(5) DS3/STS-1 UNE Loop

Note: There are two services.

FIGURE 10

Unbundled DS3/STS-1 UNE Loop



Pricing Structure:

Loop - DS3

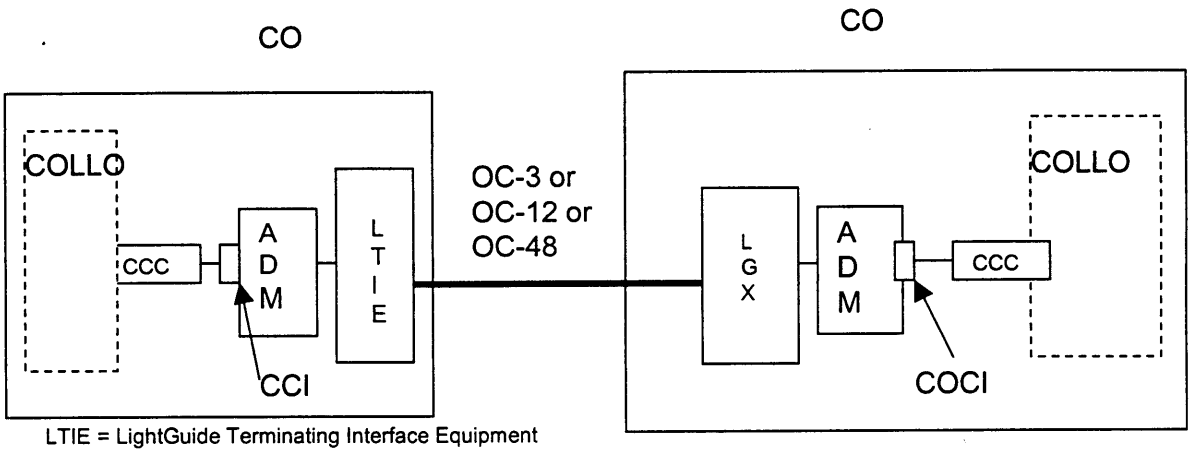
- Unbundled Local Loop - DS3 - per Mile
- Unbundled Local Loop - DS3 - per Facility Termination
- NRC - DS3 Loop - Facility Termination - 1st
- NRC - DS3 Loop - Facility Termination - Add'l
- NRC - DS3 - Facility Termination - Disconnect - 1st
- NRC - DS3 - Facility Termination - Disconnect - Add'l
- NRC - DS3 Loop -Incremental Charge--Manual Svc Order - 1st
- NRC - DS3 Loop - Incremental Charge--Manual Svc Order - Add'l
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

(6) OC-3, OC-12, OC-4 Interoffice Channel UNE services

Offered as dedicated transport, point to point (wire center collocation to wire center collocation). OC-3 is equal to 3 DS3/STS-1 or 84 DS1 Capacity system. OC-12 is equal to a 12 DS3/STS-1 or 4 OC-3 or 336 DS1 Capacity System. OC-48 is equal to a 48 DS3/STS-1 or 16 OC-3 or 1344 DS1 Capacity System. OC-48 is essentially four OC-12's. OC-48 will have a OC-12 interface. All OC level services are synchronous SONET based optical services.

Note: There are three services.

FIGURE 11



LTIE = LightGuide Terminating Interface Equipment
ADM = Add/Drop Multiplexer

Pricing Structure:

Interoffice Transport - Dedicated - OC3
- OC3 -per mile per month
- OC3 -Facility Termination per month
- NRC - Facility Termination - 1st
- NRC - Facility Termination - Add'l
- NRC - OC3 - Facility Termination - Disconnect Chg - 1st
- NRC - OC3 - Facility Termination - Disconnect Chg - Add'l
- NRC - OC3 - Incremental Cost - Manual Svc Order -1st
- NRC - OC3 - Incremental Cost - Manual Svc Order -Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-1st
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:

DS1
DS3
STS-1
OC-3

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1
DS3
STS-1
OC-3

OR

Interoffice Transport - Dedicated - OC12

OC12 -per mile per month
OC12 -Facility Termination per month
NRC - OC12- Facility Termination - 1st
NRC - OC12- Facility Termination - Add'l
NRC - OC12 - Facility Termination -Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Cost - Manual Svc Order -1st
NRC - OC12 - Incremental Cost - Manual Svc Order -Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 (OC-3 channel system required)

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1 (OC-3 Channel System required)
DS3
STS-1
OC-3
OC-12

OR .....

Interoffice Transport - Dedicated - OC48

OC48 -per mile per month
OC48 -Facility Termination per month
OC48 -per Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC - OC48 - Interface OC12 on OC48 - Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - Add'l
NRC - OC48 - Incremental Cost - Manual Svc. Order -1st
NRC - OC48 - Incremental Cost - Manual Svc. Order -Add'l
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order -1st
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-Add'l

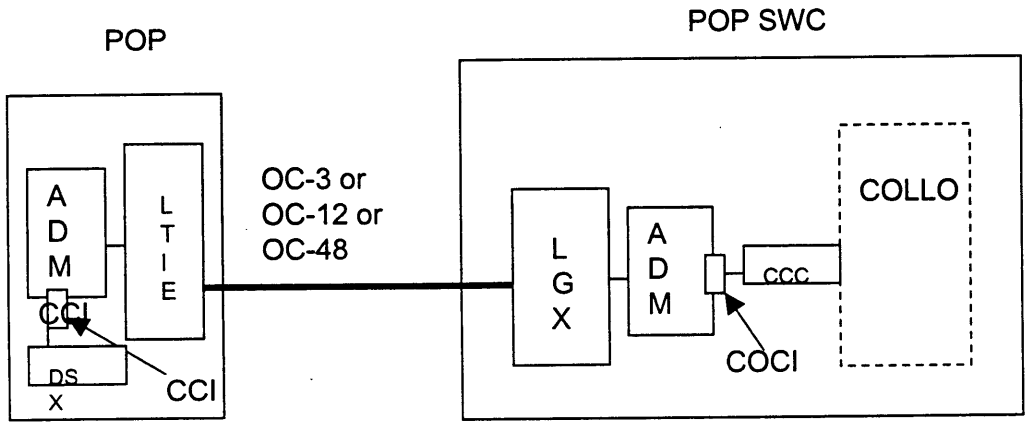
Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 (OC-3 channel system required)

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1 (OC-3 Channel System required)
DS3
STS-1
OC-3
OC-12

(7) OC-3, OC-12, and OC-48 Local Channel UNE services

Offered as dedicated transport, point to point (POP to POP SWC collocation). OC-3 is equal to 3 DS3/STS-1 or 84 DS1 Capacity system. OC-12 is equal to a 12 DS3/STS-1 or 4 OC-3 or 336 DS1 Capacity System. OC-48 is equal to a 48 DS3/STS-1 or 16 OC-3 or 1344 DS1 Capacity System. *Note: There are three services.*

FIGURE 12



LTIE = LightGuide Terminating Interface Equipment
ADM = Add/Drop Multiplexer

Pricing Structure:

Local Channel - Dedicated - OC3
- OC3 per mile per month
- OC3 Facility Termination per month
- NRC - OC3 - Facility Termination - 1st
- NRC - OC3 - Facility Termination - Add'l
- NRC - OC3 - Facility Termination - Disconnect Chg - 1st
- NRC - OC3 - Facility Termination - Disconnect Chg - Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
- NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-1st
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
- OC-3
- DS3
- STS-1
- DS1

Central Office Channel Interfaces (COCI) billed on a per interface basis:
- OC-3
- DS3
- STS-1
- DS-1

Local Channel - Dedicated - OC12
- OC12 per mile per month
- OC12 Facility Termination per month
- NRC - OC12 - Facility Termination - 1st

NRC - OC12 - Facility Termination - Add'l
NRC - OC12 - Facility Termination -Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order - 1st
NRC - OC12 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3,
STS-1
DS1 not available at customer premise. No OC-3 channel system required.

Central Office Channel Interfaces (COCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS-1 (OC-3 Channel System required)

OR
Local Channel - Dedicated - OC48
OC48 per mile per month
OC48 Facility Termination per month
OC48 - Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination -Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC -OC48 - Interface OC12 on OC48 -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order - 1st
NRC - OC48 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-Add'l

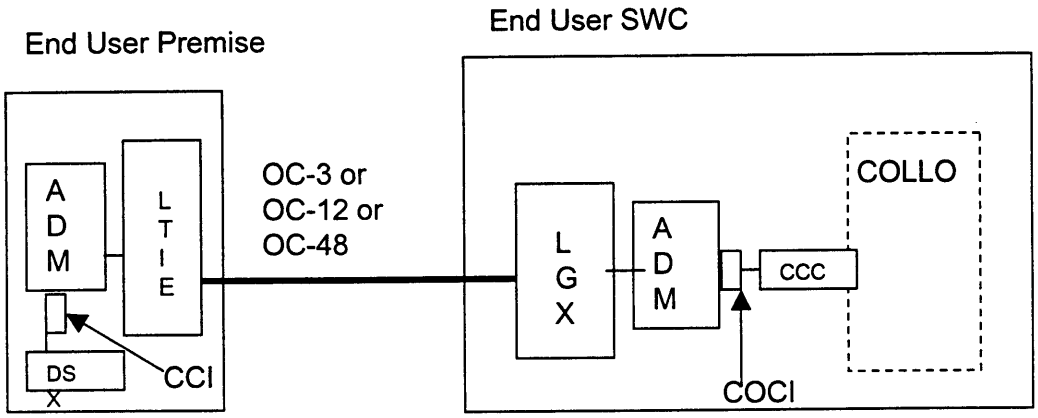
Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 not available at customer premise. No OC-3 channel system.

Central Office Channel Interfaces (COCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS-1 (OC-3 Channel System required)

(8) OC-3, OC-12, and OC-48 Loops UNE services

Offered as a dedicated transmission path, point to point (end user's premise to end user's SWC collocation). *Note: There are three services.*

FIGURE 13



Pricing Structure:

Loop - OC3

OC3 per mile per month
OC3 Facility Termination per month
NRC - OC3 - Facility Termination - 1st
NRC - OC3 - Facility Termination - Add'l
NRC - OC3 - Facility Termination - Disconnect - 1st
NRC - OC3 - Facility Termination - Disconnect - Add'l
NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

OR

Loop - OC12

OC12 per mile per month
OC12 Facility Termination per month
NRC - OC12 - Facility Termination - 1st
NRC - OC12 - Facility Termination - Add'l
NRC - OC12 - Facility Termination - Disconnect - 1st
NRC - OC12 - Facility Termination - Disconnect - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order - 1st
NRC - OC12 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-1st
NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:

See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

OR
Loop - OC48

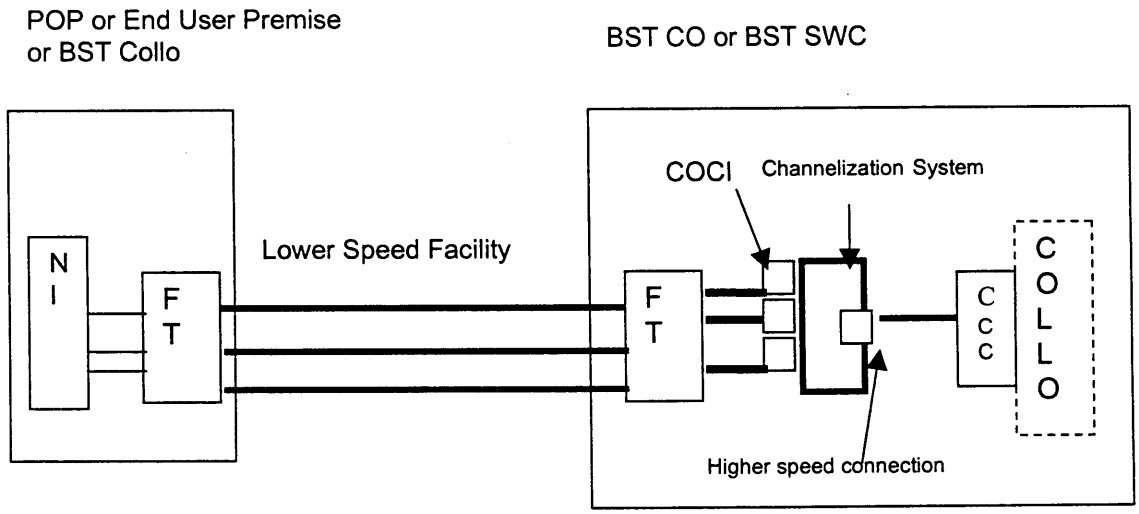
OC48 per mile per month
OC48 Facility Termination per month
OC48 - Interface OC12 on OC48
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination -Add'l
NRC - OC48 - Facility Termination - Disconnect - 1st
NRC - OC48 - Facility Termination - Disconnect - Add'l
NRC - OC48- Interface OC12 on OC48 - Disconnect - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st per month
NRC -OC48 - Interface OC12 on OC48 -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order - 1st
NRC - OC48 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -Add'l
NRC - OC48 - Facility Termination-Manual Svc Order vs Electronic-Disconnect-1st
NRC - OC48 - Facility Termination-Manual Svc Order vs Electronic-Disconnect-Add'l
NRC - OC48 - Interface - Manual Svc Order vs Electronic-Disconnect-1st
NRC - OC48 - Interface - Manual Svc Order vs Electronic-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

(9) Channelization UNE Service

This UNE offers point-to-point channelization functionality. The high speed side of the channelization unit is connected to collocation. Low speed facilities can be ordered to the channelization unit from another collocation or a CLEC's POP or an end user's premise.



See UNE service (2) for details of channelization. Lower speed facilities are DS0 and/or DS1. The higher speed connection allows DS3, STS-1, or DS1 connections. These facilities can be Loops, Local Channel, or Interoffice Channel.

C. Forecast:

	UNITS				
	YEARS				
SERVICES	2000	2001	2002	2003	2004
VG UIT-D	3559	3918	4207	4409	4560
DS1 UIT-D	207	269	310	339	357
DS3 UIT-D	3	4	6	7	8
OC3 UIT-D	1	2	3	4	5
OC12 UIT-D	0	1	2	3	3
OC48 UIT-D	0	1	2	3	4
DS1 Ch.	186	203	219	229	237
DS3 Ch.	2	2	3	4	4

D. Billing:

Billing will be accomplished through CABS.

1. SIG will not apply.
2. SAW will not apply
3. Billing Guarantee will not apply.
4. STATE MISSED APPOINTMENT CREDITS will apply (TELRIC).
5. EXPEDITE CHARGES for shorter intervals will apply (TELRIC).
6. CANCELLATION CHARGES will apply (TELRIC).
7. SERVICE ORDER MODIFICATION charges will apply (TELRIC).
8. CREDIT OUTAGES will apply (TELRIC).

The rate elements are contained within previous section B.

Shared Use – While UNEs are provisioned for the purpose of providing exchange and exchange access services, it is possible that the CLEC will interconnect tariffed services to the Dedicated Transport UNE. Tariffed rates will apply to the facility over which tariffed services are transmitted. Self reported Percent Interstate Usage (PIU) /Percent Local Facility (PLF)/Percent Local Usage will be used along with CABS Work Request 98040309 PLU on Trunks and Facilities in order to apportion and bill for the appropriate contract/tariff rates. This Work Request was developed by the Local Interconnection Project Team and has been requested for a CABS release of in 2000.

Credit Terms/Payment Plans - There are also no volume or term options for this service; consequently, only month to month rates will be offered.

E. Deployment Schedule:

Ubiquitous deployment assuming current C.O. and loop capabilities
Additional transport capacities will be developed based on the bona fide Request process. Special construction may apply as appropriate. Since the Company has been ordered to provide these services, it is important that they be implemented as soon as possible.

F. Distribution Channels:

Use Interconnection Services Sales Channels - 12 headcount shared among all UNEs.
Product Management will compile an Account Team Information Package from the Interdepartmental Service Description.

G. Product Codes, etc.:

Unique sales codes for IPC/LCSC
Establish new product codes for services.
Unique identifiers will be assigned to all recurring rate elements.

H. Product Tracking Needs:

Unit Counter – TBD. Need unique counters for the each recurring rate element, e.g. a unit counter for facility terminations as well as mileage.
Revenue and Expenses - ABIS
Accounted for by: Region/State/GEO/Wire Center/Customer (by ACNA)

I. Tariff/Contract/Agreement:

Short Term: Standard Contract Agreement

- Since regulatory agencies have mandated these services, contract administration has included these services within the standard Interconnection Agreement.
- Need one headcount for contract administration spread over UNEs.
- The existing standard Interconnection Agreement specifies that any state without a price for Dedicated Transport will be provisioned out of the state tariff until BST offers the service.
- An interim procedure to bill contract rates is in place for DS0-DS3 Interoffice facilities. This does not include Local Channel or Channelization.

Long Term - 2001 forward: Tariff

- Pricing/Tariff Development Headcount per UNE (to be determined)

J. *Advertising and Promotion:*

Development of common "fact sheet" type brochure $50k per year through 2000 for all UNEs
Internet WEB page -- $100k per year through 2000 for all UNEs

K. *Customer Training:*

- one person-year plus $20k materials per year through 2000
- Document-based training (not face to face)
- How common facility growth is triggered
- Tech requirements/interface specifications
- Maintenance/repair
- General product overview - all UNEs
- Assume: man-hour loading - travel, PC equipped (misc.: office space, supplies)
- Product Management will compile CLEC Information Package from the Interdepartmental Service Description.

L. *Staff Support Requirements:*

The following requirements are for all Transport Product and Project Management UNEs

	PG	1999	2000
Product Manages	59 58	2 3	2 3
Project Mgrs.	59	5	5
Project Team	59 58	6 6	6 6

Headcount Requirements for Transport UNEs

II. NETWORK ARCHITECTURE

A. Physical Network Configuration

1. Switching Requirements

None

2. Signaling

None

3. Recording (AMA, etc.)

None

4. Transport

Unbundled Dedicated Transport is a point-to-point service that has three possible components:

1) Interoffice Channel
2) Local Channel
3) Channelization

Interoffice Channel provides a transmission path, and its associated electronics, between BellSouth end offices. It allows a CLEC to transport 2-wire Voice Grade, DS0s (Voice or Data), DS1s, DS3s, ISDN, OC3, OC12, OC48, and STS-1, from one location to another. These facilities are dedicated to a single network provider. These facilities may be configured in various transmission configurations and will provide the same transport capacities that exist in Section 6 of the FCC tariff (i.e., DS0, DS1 and DS3).

Typical configurations of Network Elements used for Interoffice are shown below.

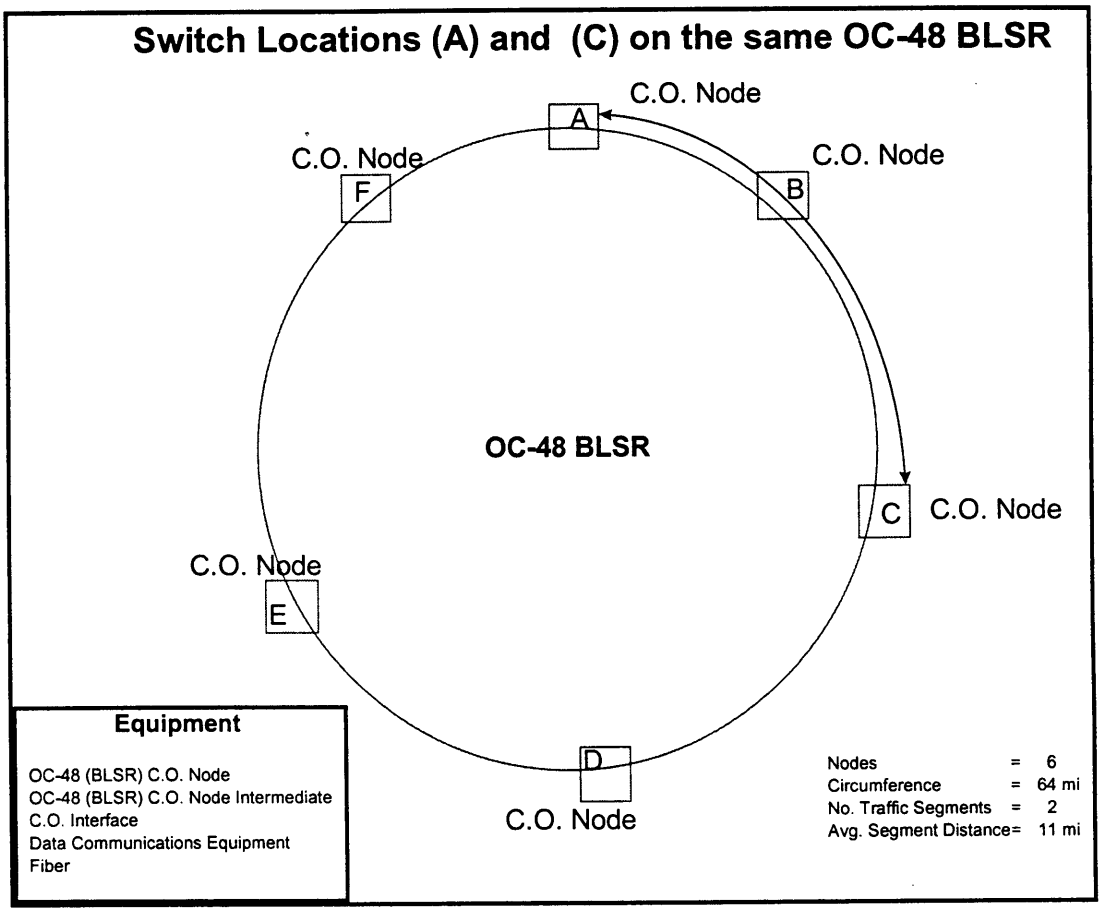


Figure 0-1. Switch Locations on the same OC-48 BLSR

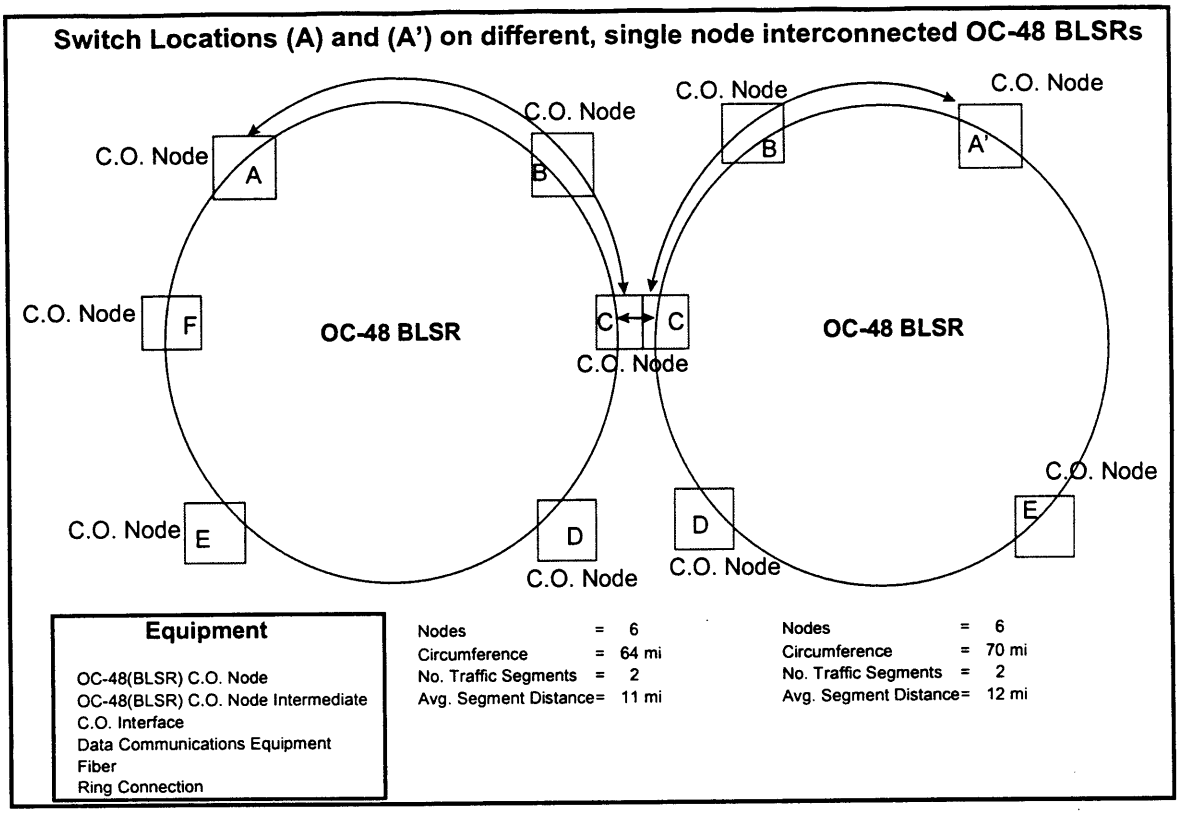


Figure 0-2. Switch Locations on different, single node interconnected OC-48 BLSRs

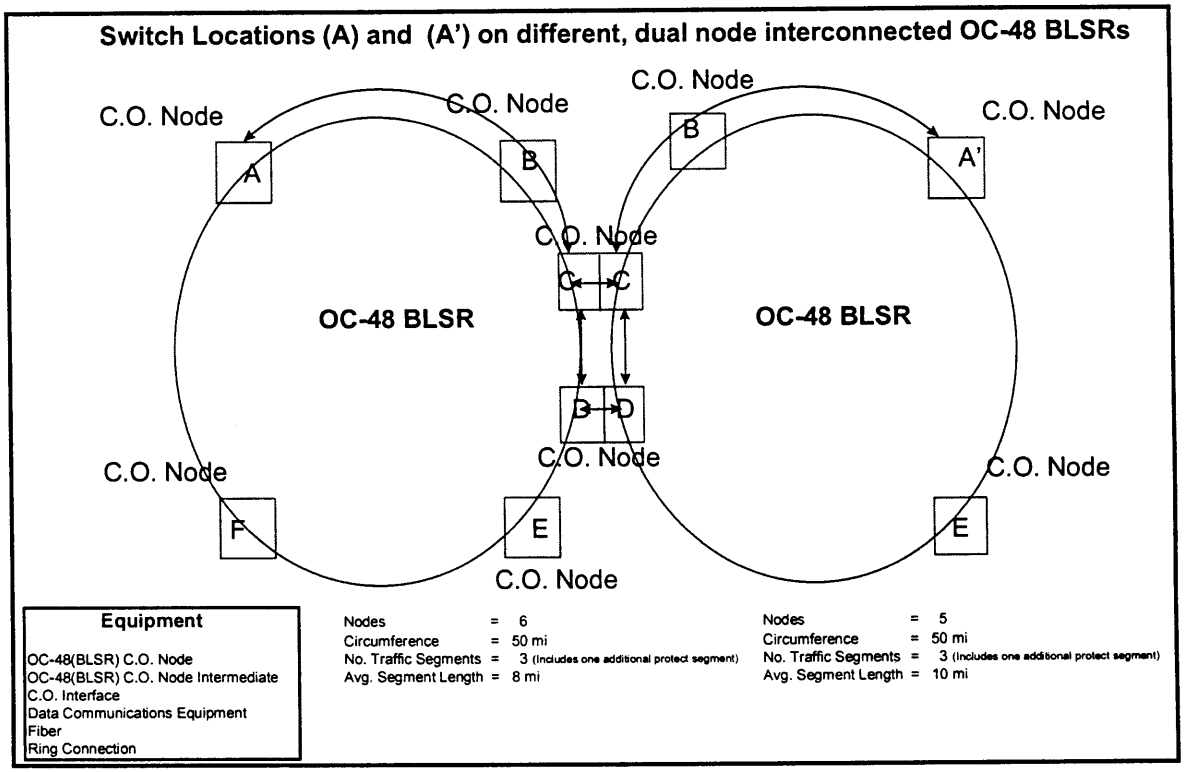


Figure 0-3. Switch Locations on different, dual node interconnected OC-48 BLSRs

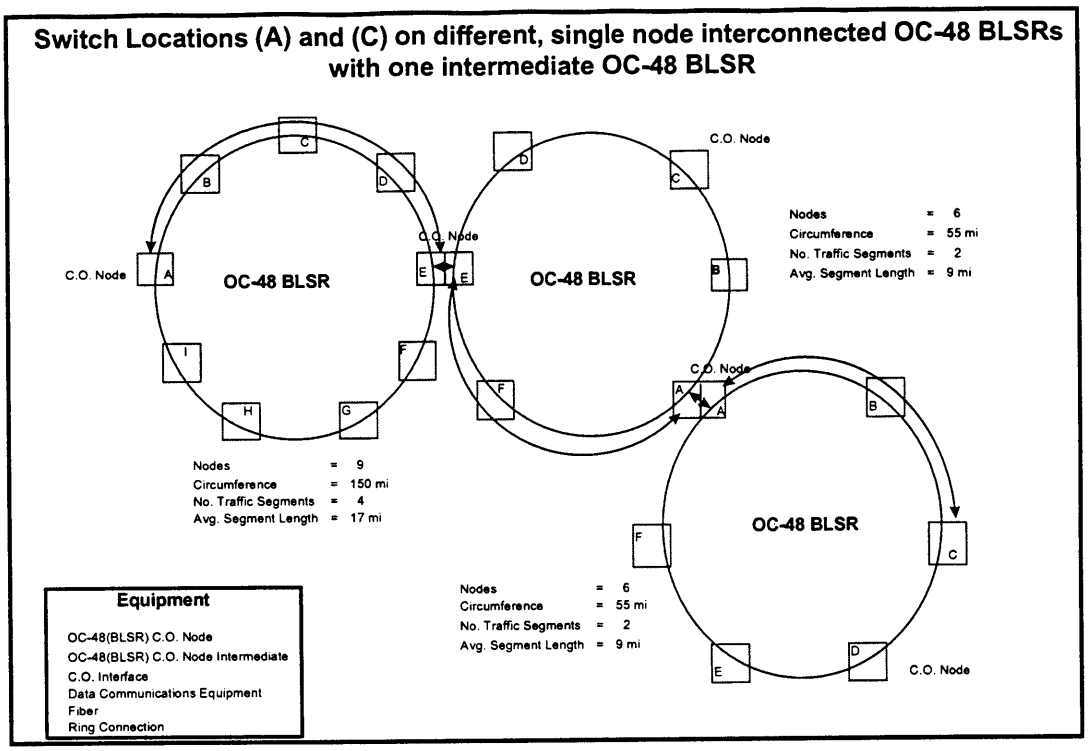


Figure 0-4. Switch Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR

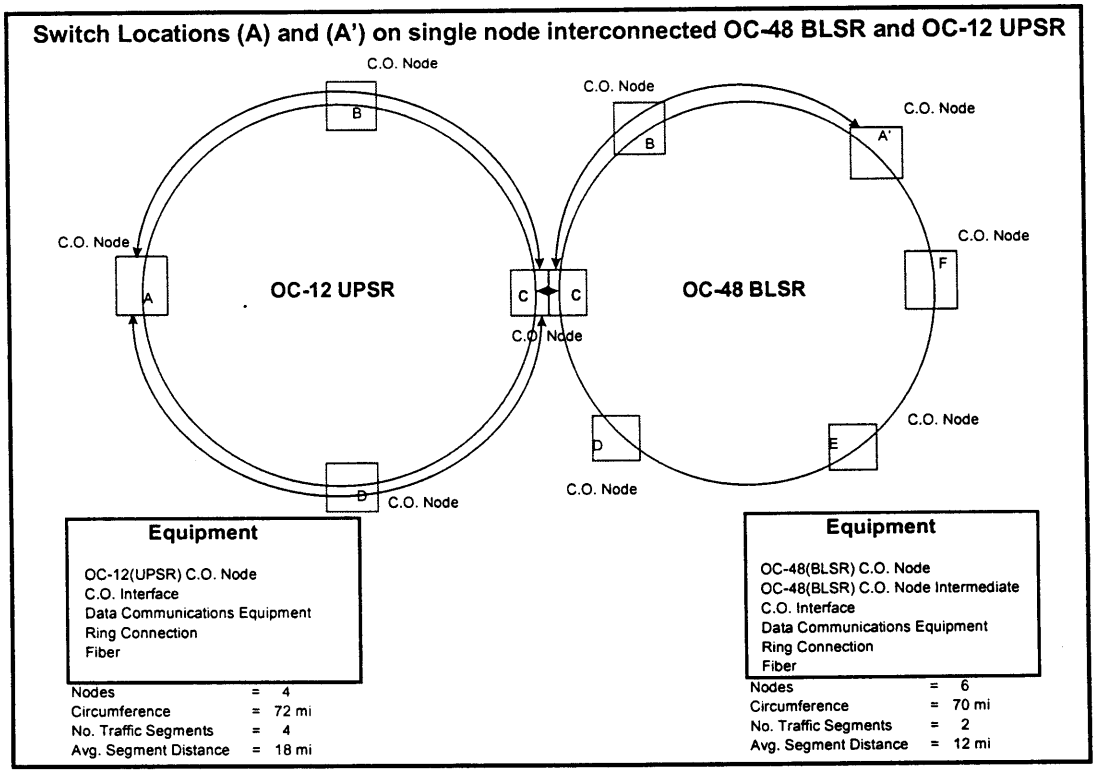


Figure 0-5. Switch Locations on single node interconnected OC-48 BLSR and OC-12 UPSR

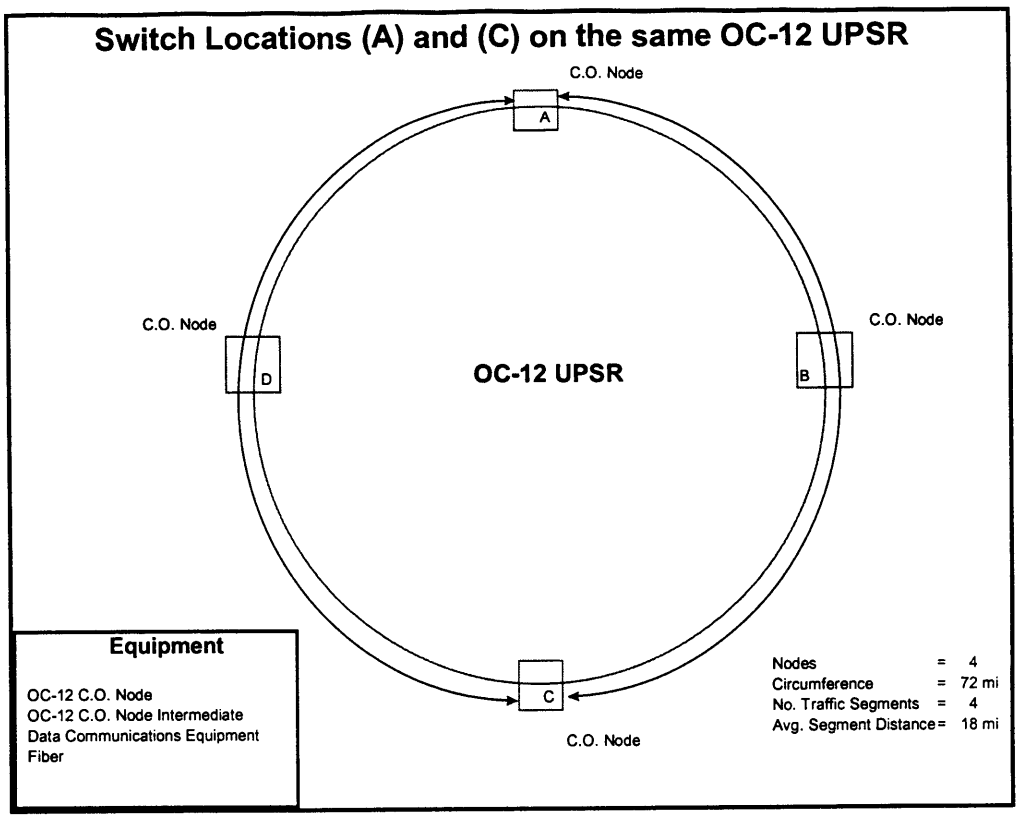


Figure 0-6. Switch Locations on the same OC-12 UPSR

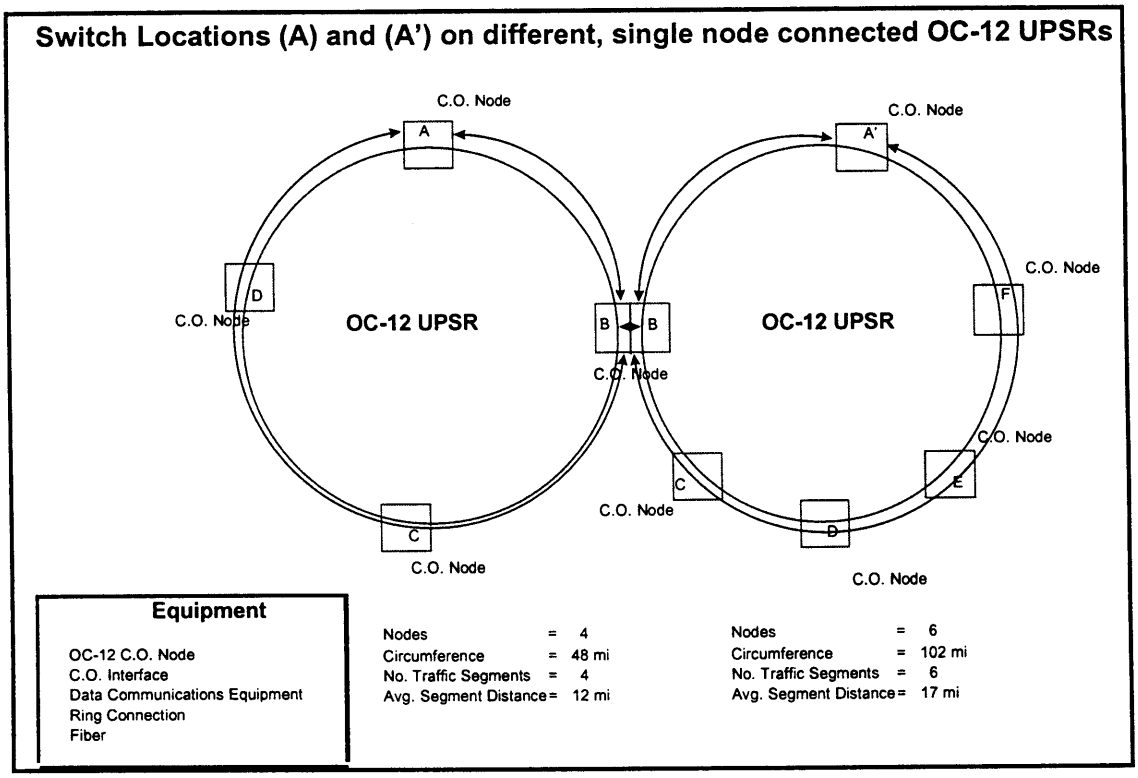


Figure 0-7. Switch Locations on different, single node interconnected OC-12 UPSRs

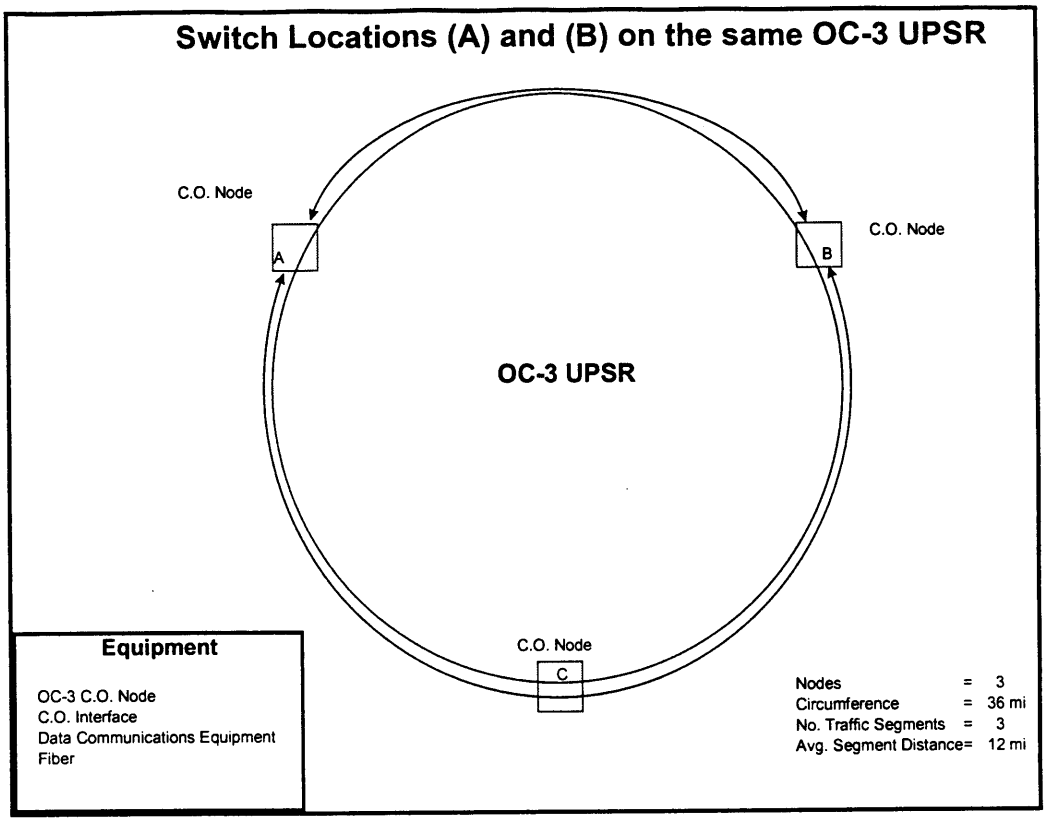


Figure 0-8. Switch Locations on the same OC-3 UPSR

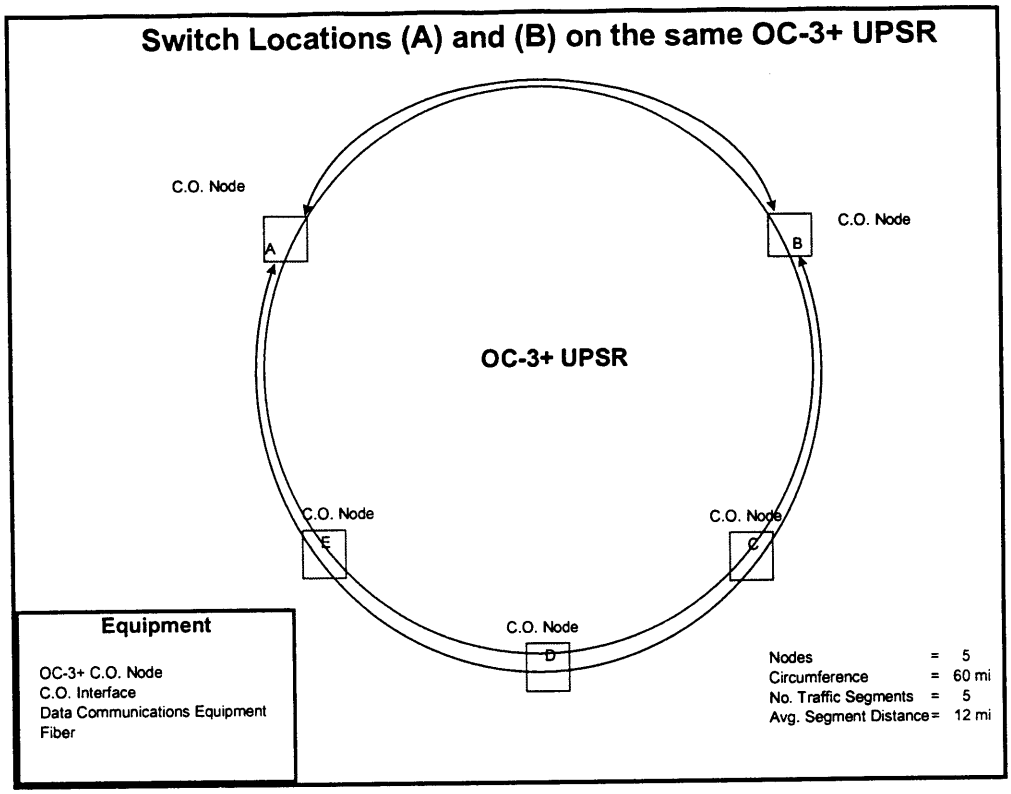


Figure 0-9. Switch Locations on the same OC-3+ UPSR

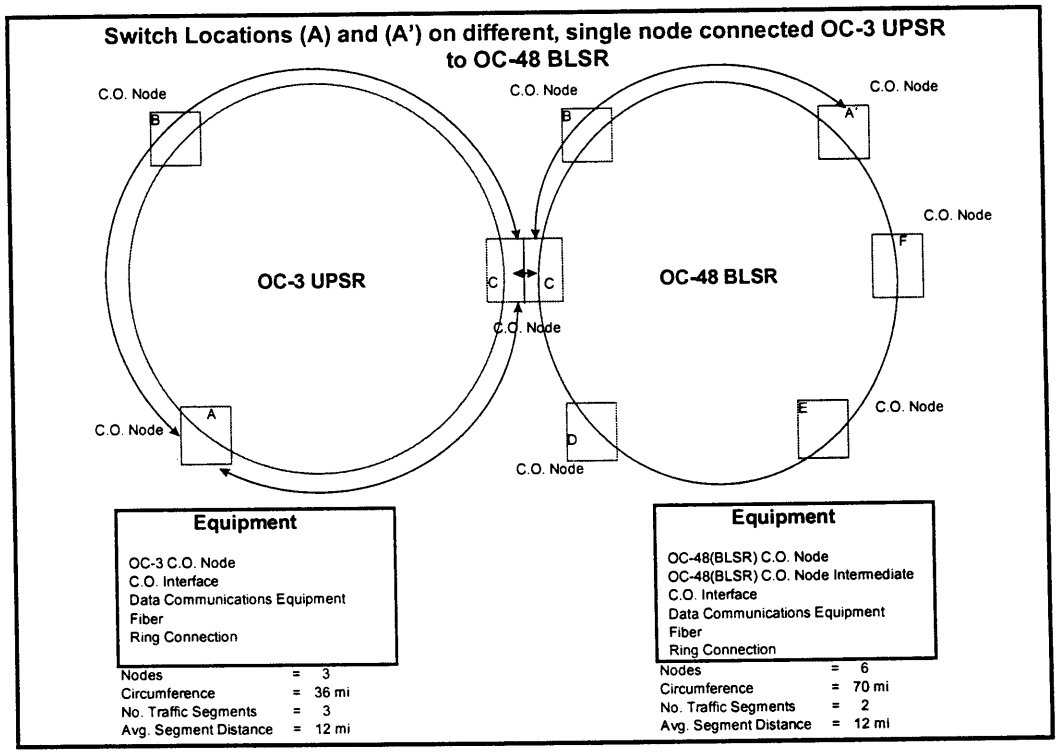


Figure 0-10. Switch Locations on single node interconnected OC-48 BLSR and OC-3 UPSR

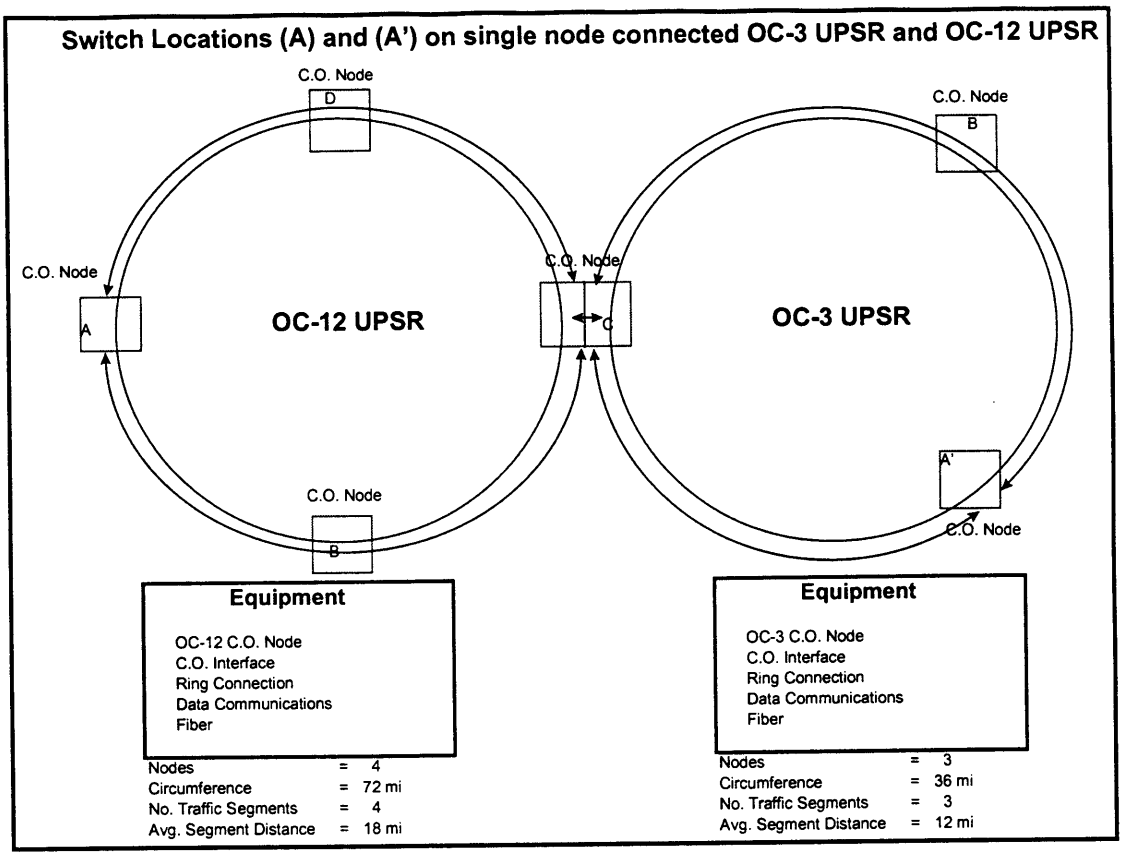


Figure 0-11. Switch Locations on single node interconnected OC-12 and OC-3 UPSRs

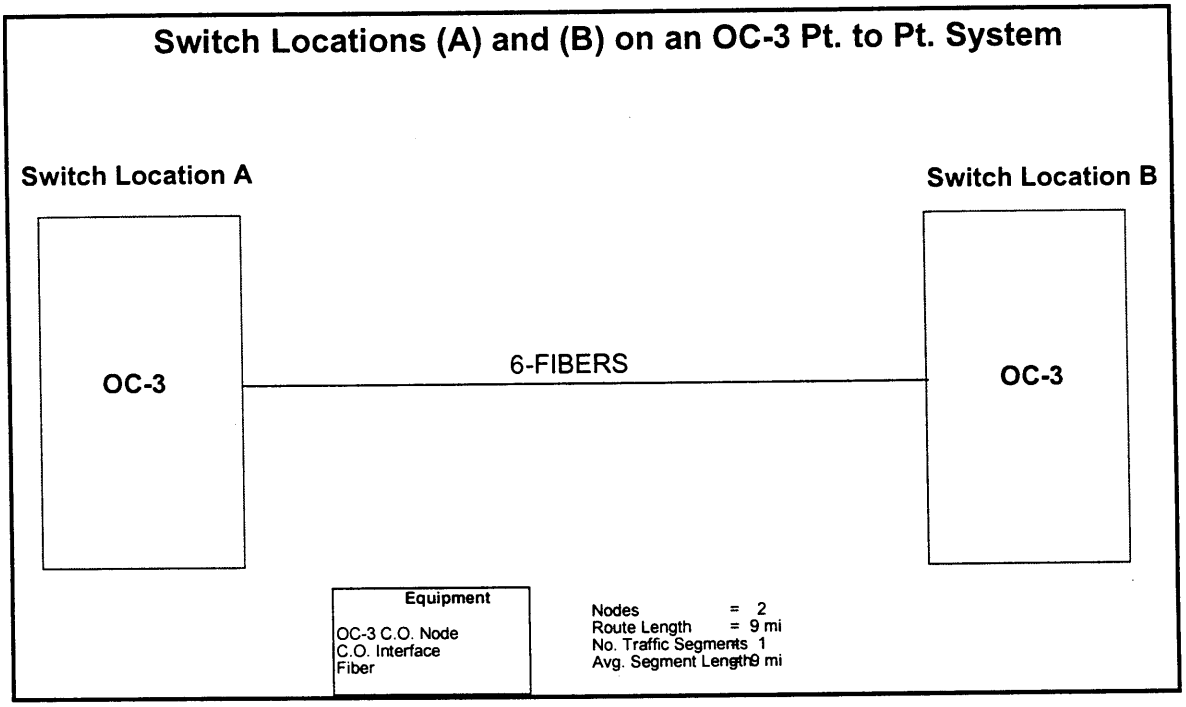


Figure 0-12. Switch Locations on and OC-3 Pt.-to-Pt. System

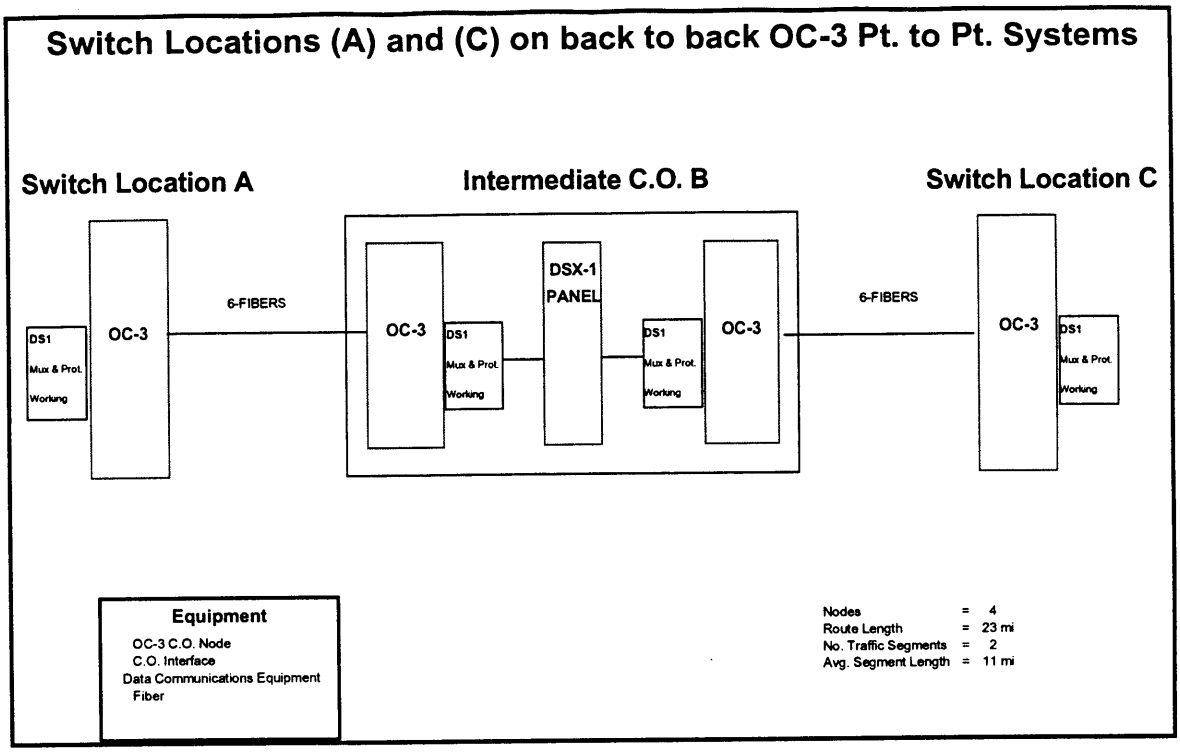


Figure 0-13. Switch Locations on back to back OC-3 Pt.-to-Pt. Systems

Local Channel is dedicated transport at the following bandwidths: 2-wire voice grade, 4-wire voice grade, DS1, DS3, ISDN, STS-1, OC3, OC12 and OC48. Local Channel provides a dedicated point to point transmission path and the associated electronics between BST's serving wire center (DSX3 or LGX frame) and the CLEC's POP. In the BST SWC this service must be extended to a collocation arrangement. Current policies concerning recombination will be adhered to.

Table 4-1 provides a listing of Unbundled Local Channel Levels and identifies Network Facility Architectures and Interface Options at the SWC and CLEC locations.

Unbundled Local Channel OC-3 and OC-12 Levels provide drop side interfaces off a BST provided SONET multiplexer at the CLEC POP location with OC-3 and OC-12 interfaces in the SWC as shown in Figure 1. These service arrangements are similar to the current LightGate® OC-3 Customer Channel & Central Office Interfaces and the LightGate OC-12 Customer Channel & Central Office Interfaces that are under development. At this time Unbundled Local Channel OC-3 and OC-12 Levels will only support a 2 fiber interface – LightGate supports 2 and 4 fiber interfaces.

Unbundled Local Channel OC-48 Level allows the CLEC an opportunity to provide the SONET Add/Drop Multiplexer at their POP location. At the CLEC POP, this service arrangement is similar to the current LightGate OC-48 LightGate Local Channel System with Optical Customer Termination (OCUT). In the Serving Wire Center an OC-12 drop side interface is provided. At the SWC, this service arrangement is similar to the LightGate

OC-12 Central Office Channel Interface that is under development. The LightGate OCUT is a 4 fiber interface that allows the customer the opportunity of providing the SONET equipment at their premises. Customer provided equipment must be compatible with BST approved equipment used in the SWC. The line side of the SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used and BST reserves the right to determine the equipment it employs for service.

Table 4-1. – Unbundled Local Channel Levels, Architectures and Interface Options

ULC Level	Network Facility Architecture	Location	Interface[1] Options	Physical Interface
OC-48	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	4 Fiber OC-48 OCUT[2]	Duplexable SC Connector
OC-12	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-12 Drop	Duplexable SC Connector
OC-3	OC-48, OC-12	BST SWC	2 Fiber OC-3 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-3 Drop	Duplexable SC Connector
STS-1	OC-48, OC-12, OC-3	CLEC POP	2 Conductor	2 - BNC[3] Connectors

4.1 Floor Space and Entrance Facilities

[1] For 2 fiber interfaces, a working fiber pair (2 individual fibers - one fiber for each direction of transmission) is provided at the NI. For 4-fiber interfaces, 2 fiber pairs (4 individual fibers - 2 working and 2 protection) are provided at the NI.

[2] For OC-48 span level interconnections, the CLEC's Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line side of the SONET system will be arranged as a two-node ring, utilizing ring software and theData Communications Channel (DCC) not will be active across the interface.

[3] The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 – TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

Where BST provides termination equipment at the CLEC POP location, the CLEC must provide suitable floor space, including an environment controlled for humidity and temperature, and a source of non-switched AC power to support ULC service.

4.2 ULC Level Capacity Limits

Unbundled Local Channel (ULC) Level are capable of transporting DS1, DS3, STS-1, OC-3 and OC-12 channels. The capacity of ULC is depicted in Table 4-2.

Table 4-2. ULC Level Capacity Limits

Unbundled Local Channel Level	DS1	DS3	STS-1	OC-3	OC-12	OC-48
OC-48	1344	48	48	16	4	-
OC-12	336	12	12	4	-	-
OC-3	84	3	3	-	-	-
STS-1	28	1	-	-	-	-
DS3	28	-	-	-	-	-

4.3 Technical Specifications

Existing BellSouth Technical References contain technical specifications that are in part applicable to Unbundled Local Channel OC-3, OC-12, OC-48, STS-1 and DS3 interfaces. LightGate is the most similar service; its interface and performance specifications are contained in TR 73501, *LightGate® Service Interface and Performance Specifications.*

The service terminology in TR 73501 has been tailored to the LightGate service offering. Some of the specific interfaces and features are not applicable to Unbundled Local Channel Levels. In addition, the LightGate OC-12 Customer & Central Office Channel Interfaces under development are not included in the TR at this time.

4.4 SONET Network Interface Requirements

This section defines the Synchronous Optical Network (SONET) OC-3, OC-12 & OC-48 Optical Network Interface (NI) requirements. It denotes existing documentation that details signal specifications and provides BST variations and clarifications. The SONET interface is delineated in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems:Common Criteria Physical Layer*
ANSI T1.105-1995	*Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates, and Formats*

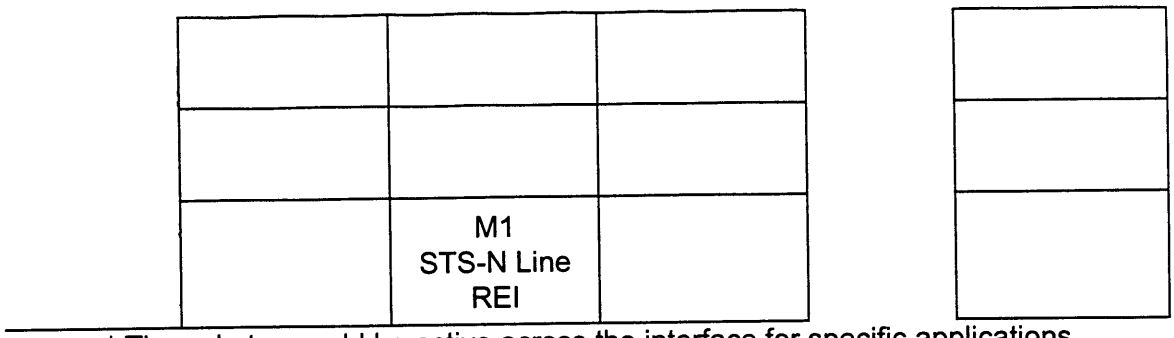
It is recommended that BST and the CLEC jointly engineer SONET optical interfaces. For ULC OC-48 Level span level interconnections the CLEC's SONET Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line side of the OC-48 Level SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used, and the Data Communications Channel (DCC) must be turned off. BST reserves the right to determine the equipment it employs for service.

4.5 Overhead Bytes Active Across NI

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-3. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

Table 4-3. Overhead Bytes Active Across NI

Overhead	Transport Overhead			Path
Section Overhead	Framing A1	Framing A2	Section Trace J0	PathTrace J1
	Section BIP-8 B1			Path BIP-8 B3
				Signal Label C2
Line Overhead	Pointer H1	Pointer H2	Pointer Action H3	Path Status G1
	Line BIP-8 B2	APS K1	APS K2	
				Indicator H4*



* These bytes could be active across the interface for specific applications.

4.6 Automatic Protection Switching

Automatic Protection Switching (APS) is controlled by the K1 and K2 bytes. For OC-48 ULC Level Service with a 4 fiber interface, unidirectional 1+1 non-revertive APS will be provided across the NI. Use of the K1 and K2 bytes is specified in GR-253-CORE and ANSI T1.105.01-1994, *Synchronous Optical Network (SONET) - Automatic Protection Switching.*

4.7 Payload Compatibility

For payloads terminated within the BST network, payload compatibility must be assured. Payload mappings for Synchronous Payload Envelopes (SPEs) terminated in the BST network are defined in ANSI T1.105.02, *Synchronous Optical Network (SONET) - Payload Mappings* and currently limited to the following:

- Asynchronous mapping for DS1 signals into floating VT1.5 SPE.
- Asynchronous mapping for DS3 signals with DS3 framing structure into STS-1 SPE.
- STS-1 signals mapping into STS-3 SPE or STS-12 SPE.

The OC-3, OC-12 and OC-48 ULC interfaces support transport of properly mapped STS-1, STS-3, STS-3c (concatenated) and STS-12 signals. Payloads that are transported but not terminated in the BST network must be contained in one of the supported frame structures. In addition to these standard mappings, proprietary mappings (provided they comply with standard frame, format and overhead structure) may also be acceptable for transport.

Sub STS-1 Level Multiplexing

SONET VT1.5 or Asynchronous M13 multiplexing can be supported with OC-3, OC-12 or OC-48 ULC interconnection interfaces.

DS1 payloads can be directly mapped into the VT1.5 SPE using the asynchronous mapping for a DS1. DS1 payloads contained within a DS3 must be mapped using the asynchronous M13 multiplex format (combination of M12 and M23 formats) for terminal equipment that multiplexes 28 DS1s into a DS3, as defined in ANSI T1.107-1995, *Digital Hierarchy Formats Specifications*.
The DS3 signal must be framed utilizing the framing structure in ANSI T1.107 and must use the asynchronous mapping for a DS3 into an STS-1 SPE.

4.8 Fiber Transmission Media

The optical interface shall use single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. The conventional dispersion-unshifted single-mode fiber (also known as EIA/TIA Class IVa fiber) shall meet the requirements detailed in Bellcore GR-20-CORE, *Generic Requirements for Optical Fiber and Optical Fiber Cables*, and ITU Recommendation G.652, *Characteristics of a Single-Mode Optical Fiber Cable*.

The 2 fiber interface provides a working fiber pair that uses one fiber for each direction of transmission. The 4 fiber interface provides a working and protection fiber pair (4 individual fibers - 2 working and 2 protection) as shown in Figure 2.

Typical Fiber Performance Characteristics

Table 4-4 provides typical characteristics of optical fiber and components commonly utilized in BST's network:

Table 4-4. Typical Technical Characteristics of BST Optical Fiber and Components

Wavelength (λ)	1310 nm	1550 nm
Typical Fiber Loss	0.5 dB/km	0.35 dB/km
Discrete Reflectance (Splices, Connectors)	-40.0 dB	-40.0 dB
Medium Zero Dispersion Wavelength	1310 ± 3 nm	Not Applicable
Chromatic Dispersion (Fiber Cable)	3.5 ps/nm-km	18.0 ps/nm-km
Chromatic Dispersion Slope (Fiber Cable)	0.093 ps/(nm-km^2)	0.093 ps/(nm-km^2)

The transmission characteristics of a specific ULC application may differ from the above typical performance characteristics.

4.9 Optical Mechanical Interface

At the NI, BST will provide duplexable SC type (EIA/TIA SCFOC/2.5) plug and jack type connectors which will be used to support transmission over single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. BST will install the connector jack to serve as the NI. BST and the CLEC must each provide connector plugs to terminate their fibers at the NI. Each connector plug will contain 2 fibers, one for each direction of transmission. The connector jack will be the demarcation point between BST and the CLEC installation.

Alternatively, the CLEC may want to provide interconnection components at their location to serve as the NI. BST and the CLEC must agree upon a mutually acceptable test point at the CLEC's location that will serve as the NI. The CLEC provided NI should be functionally consistent with BST provided NIs and BST technicians must be allowed to access and test from the NI. The use of components such as the Value-Added Connector Module System (VAM System) from ADC Telecommunications can add flexibility and a monitoring capability. The CLEC would provide and install the NI - which would consist of a VAM chassis and monitor module (90/10 splitter). BST would provide a fiber jumper from its terminal equipment to the VAM module. This jumper could accommodate different connectors on each end. In a specific application it is proposed to use a SC type connector at the BST terminal equipment and a FCPC type connector at the CLEC provided VAM module.

4.10 Physical Media Characteristics

The interface shall meet the physical media characteristics defined in GR-253-CORE for Short Reach (SR), Intermediate Reach-1 (IR-1) or Long Reach (LR) applications. Transmitter, optical path and receiver parameters for OC-3, OC-12 and OC-48 are the same as shown in TR 73501 Tables 8-1 through 8-3.

4.11 System Budget – Joint Engineering

The establishment of optical interfaces will require joint engineering between BST and the CLEC using commonly accepted engineering practices. The design approach should be based on ANSI/EIA/TIA-559, *Single-Mode Fiber Optic System Transmission Design*, or GR-253-CORE procedures. BST's design procedures are contained in 855-355-100BT, *Single-Mode Fiber Optic Transmission System Design Procedures*.

For the purpose of optical parameter specifications, optical interfaces are referred to an optical system reference diagram as shown in Figure 3. Point S is a reference point on

the optical fiber just after the transmitter (Tx) optical connector (C_{Tx}). Point R is a reference point on the optical fiber just before the receiver (Rx) optical connector (C_{Rx}). Points S and R provide a convenient separation of the optical link into a transmitter subsection, a receiver subsection, and an optical path subsection. Optical parameters are specified for the transmitter at point S, for the receiver at point R, and for the optical path between Points S and R. All parameter values specified are worst-case values and are to be met over the ranges of standard operating conditions (i.e., temperature and humidity ranges); they include aging effects. The parameters are specified relative to an optical section design objective of a bit error ratio (BER) better than $1x10^{-10}$.

To ensure proper system performance it is necessary to specify attenuation and dispersion characteristics of the optical path. Attenuation shall be in the range of 0-7 dB for SR applications, 0-12 dB for IR applications, and 10-24/28 dB for LR applications. This specification is assumed to represent worst-case values including losses due to splices, connectors, optical attenuators (if used), or other passive optical devices, and any additional cable margin to cover allowances for the following:

1) future modifications to the cable configuration (additional splices, increased cable lengths, etc.),
2) fiber cable performance variations due to environmental factors, and
3) degradation of any connector, optical attenuator (if used), or other passive optical device when provided.

For design purposes, BST will provide the CLEC the following information:

- Length of the fiber cable including 3% extra for possible cable reroutes.
- Loss budget value in decibels/kilometer (dB/km) of fiber cable at λ = 1310 nm or λ = 1550 nm.
- Number of splices constructed and anticipated number of maintenance splices.
- Loss budget value of each splice in dB/splice.
- Loss budget value of single-mode fiber jumper in dB/jumper.
- Loss budget value of jumpers and connectors at the Lightguide Terminal Interconnect Equipment (LTIE) in dB at customer premises.
- Loss budget values of jumpers and connectors in dB used to connect fibers in BST office(s).

Note: Loss Budget Values are end-of-life values that account for aging and are usually greater than actual measured values.

4.12 STS-1 Network Interface Requirements

This section defines the Synchronous Transport Signal level 1 (STS-1) Customer Channel Interface Network Interface (NI) requirements. It denotes existing documentation that details electrical and signal specifications and provides BST variations and clarifications. The physical layer of the STS-1 NI is defined in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer*
ANSI T1.102-1993	*Digital Hierarchy – Electrical Interfaces*
ANSI T1.105-1995	*Digital Hierarchy - Optical Interface Rates and Formats Specifications (SONET)*

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-1. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

One coaxial cable is provided for each direction of transmission. Interconnection at the NI shall be by a SJA 44 connector. The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 - TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

The referenced cable for interconnections at the NI is 75 ohm coaxial cable with tinned copper meeting the requirements specified in ANSI T1.102. The STS-1 electrical interface is provided for use at a customer premises or in a central office. This interface allows a maximum interconnection distance of 450 feet on each side of the STSX-1 cross connect, assuming 728A coaxial cable.

4.13 DS3 Network Interface Requirements

This section defines the DS3 Network Interface (NI) requirements. It denotes existing documentation, which details electrical and signal specifications and provides BST variations and clarifications. At the NI the electrical requirements for the BST and customer signal are the same. The physical layer of the DS3 NI is delineated in the following specifications.

ANSI T1.404-1994	*Network-to-Customer Installation - DS3 Metallic Interface Specification*
ANSI T1.404a-1996	*Network-to-Customer Installation - DS3 Metallic Interface Specification (supplement)*
GR-342-CORE	*High-Capacity Digital Special Access Service Transmission Parameter Limits and Interface Combinations*

ANSI T1.404 applies to End-User (EU) interfaces and GR-342 applies to Carrier interfaces. A sketch of the DS3 EU customer NI is shown in Figure 4. The signal delivered to the NI by BST is identified as the BST signal, and the signal delivered to the NI by the customer is identified as the CI signal.

4.14 Optical Power Limitations

CLEC provided lasers shall not exceed +17.0 dBm in output power at 1550 nm (Class IIIb laser). In addition, the CLEC shall tell BST which class of laser that they will be utilizing.

4.15 Safety Requirements

The CLEC fiber optic system and required optical test equipment shall be registered and certified with the Department of Health, Education and Welfare Bureau of Radiological Health as specified in 21 CFR 1040.10. This document specifies performance requirements, labeling requirements and informational requirements. Documentation demonstrating system certification shall be available to assist in the determination of fiber optic safety precautions required to install, operate and maintain the system.

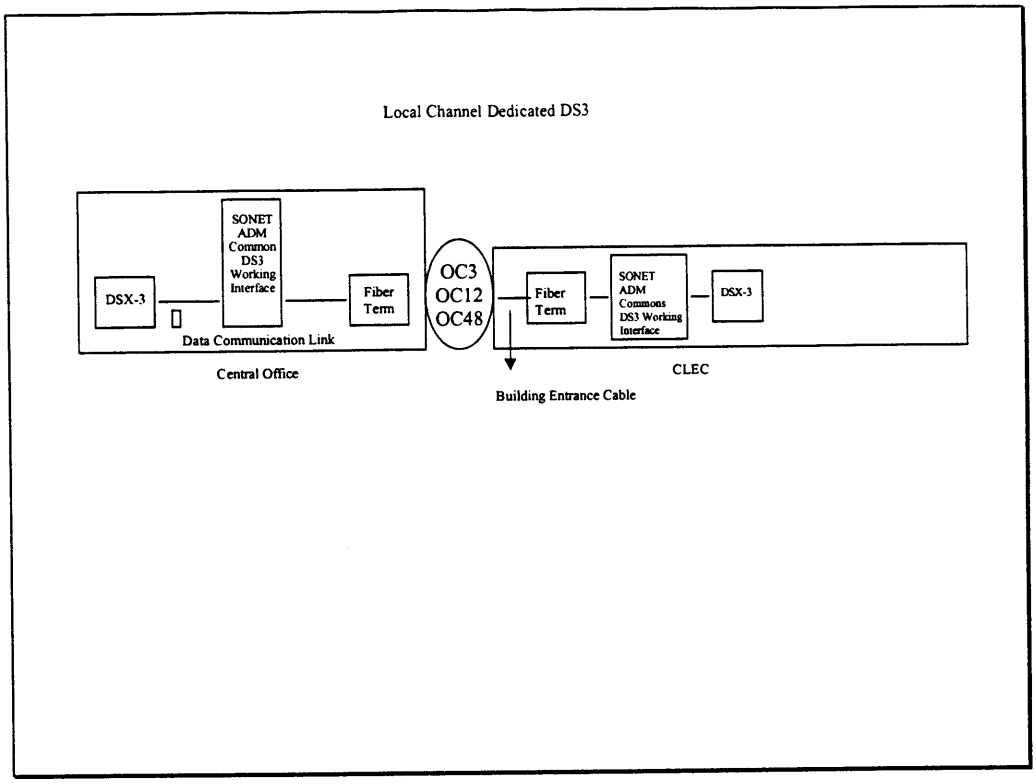


Figure 1

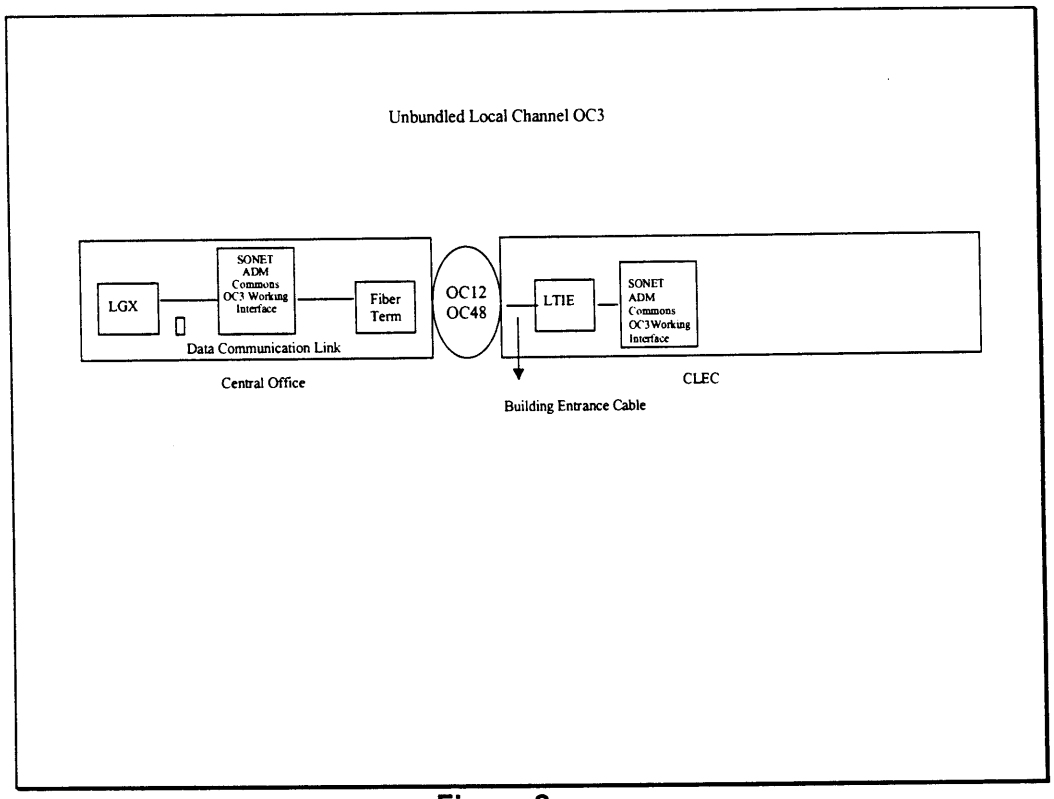


Figure 2

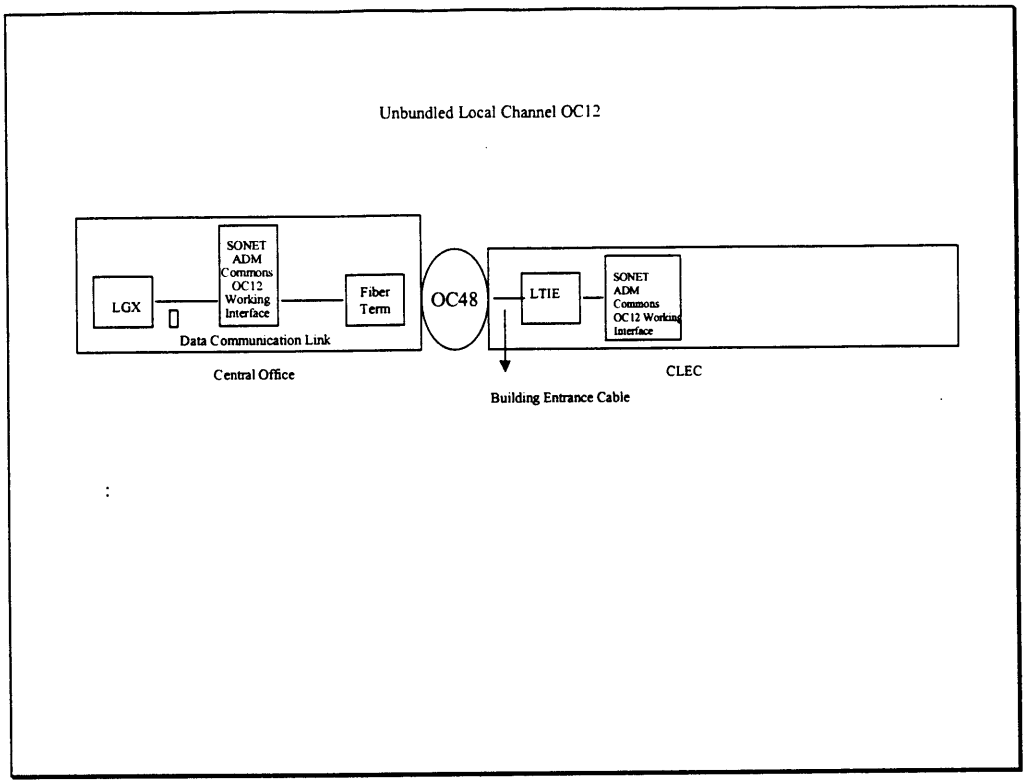
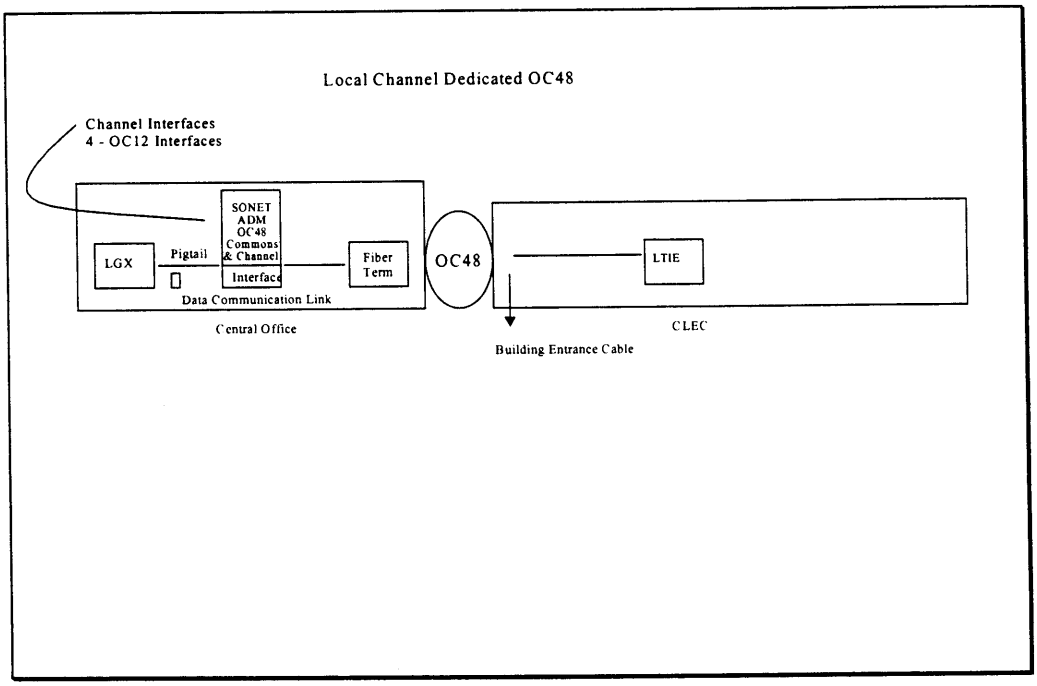

Unbundled Local Channel OC12
SONET ADM Commons OC12 Working Interface
LGX
Fiber Term
Data Communication Link
Central Office
OC48
LTIE
SONET ADM Commons OC12 Working Interface
CLEC
Building Entrance Cable

Figure 3


Local Channel Dedicated OC48
Channel Interfaces
4 - OC12 Interfaces
SONET ADM OC48 Commons & Channel Interface
LGX
Pigtail
Fiber Term
Data Communication Link
Central Office
OC48
LTIE
CLEC
Building Entrance Cable

Unbundled Channelization UNE can be at the DS1 and DS3 level. The UC-DS3 element provides for DS3 to DS1 Channelization and utilizes either a stand-alone 3/1 Multiplexer such as the Lucent Technologies DDM-1000 or a DS3 port on a Wideband Digital Cross-connect System (W-DCS) such as the Lucent Technologies DACS IV-2000, Tellabs TITAN 5500, or Alcatel 1631 as shown in Figure II-1. Costs for CI-DS1 elements will be a meld between the low speed DS1 interface cards on the stand-alone 3/1 Multiplexer and the DS1 ports on the W-DCSs.

It is Network's discretion as to which architecture is utilized to provide this UNE based on availability of spare equipment and plugs in each particular Central Office where it is ordered.

The DCS type quantities and percentages by state are shown in Table II-1 below:

Table 0-1. Digital Cross-connect System (DCS) Types by State

DCSs by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	5	65	17	7	37	15	13	22	17	198
DSC DEX CS1	9	40	0	0	0	2	1	7	0	59
TELLABS 532	4	40	18	6	0	0	28	1	1	98
Total 1/0 DCSs	**18**	**145**	**35**	**13**	**37**	**17**	**42**	**30**	**18**	**355**
W-DCSs										
ALCATEL 1631	4	2	5	0	0	0	0	1	0	12
ATT DACS IV	0	41	34	6	17	2	12	13	8	133
TELLABS TITAN 5500	1	18	3	4	0	0	0	0	15	41
Total W-DCSs	**5**	**61**	**42**	**10**	**17**	**2**	**12**	**14**	**23**	**186**

DCS % by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	27.8%	44.8%	48.6%	53.8%	100.0%	88.2%	31.0%	73.3%	94.4%	55.8%
DSC DEX CS1	50.0%	27.6%	0.0%	0.0%	0.0%	11.8%	2.4%	23.3%	0.0%	16.6%
TELLABS 532	22.2%	27.6%	51.4%	46.2%	0.0%	0.0%	66.7%	3.3%	5.6%	27.6%
Total 1/0 DCSs	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
W-DCSs										
ALCATEL 1631	80.0%	3.3%	11.9%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	6.5%
ATT DACS IV	0.0%	67.2%	81.0%	60.0%	100.0%	100.0%	100.0%	92.9%	34.8%	71.5%
TELLABS TITAN 5500	20.0%	29.5%	7.1%	40.0%	0.0%	0.0%	0.0%	0.0%	65.2%	22.0%
Total W-DCSs	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 0-2. 1/0 DCS Percentage of Occurrence on Channelized DS1s

Zones

State	1	2	3	Total
AL	15%	9%	0%	**11%**
FL	60%	76%	58%	**62%**
GA	57%	56%	14%	**54%**
KY	8%	N/A	4%	**6%**
LA	27%	28%	7%	**24%**
MS	30%	N/A	18%	**25%**
NC	50%	61%	23%	**49%**
SC	65%	68%	37%	**63%**
TN	23%	14%	3%	**19%**
BS	**45%**	**45%**	**19%**	**41%**

Table 0-3. W-DCS Percentage of Occurrence on Channelized DS3s

	Zones			
State	1	2		Total
AL	21%	24%	0%	**21%**
FL	45%	25%	20%	**41%**
GA	80%	50%	15%	**70%**
KY	66%	N/A	33%	**55%**
LA	61%	43%	24%	**49%**
MS	44%	N/A	2%	**29%**
NC	16%	39%	3%	**19%**
SC	96%	83%	33%	**86%**
TN	12%	0%	0%	**8%**
BS	**47%**	**41%**	**16%**	**43%**

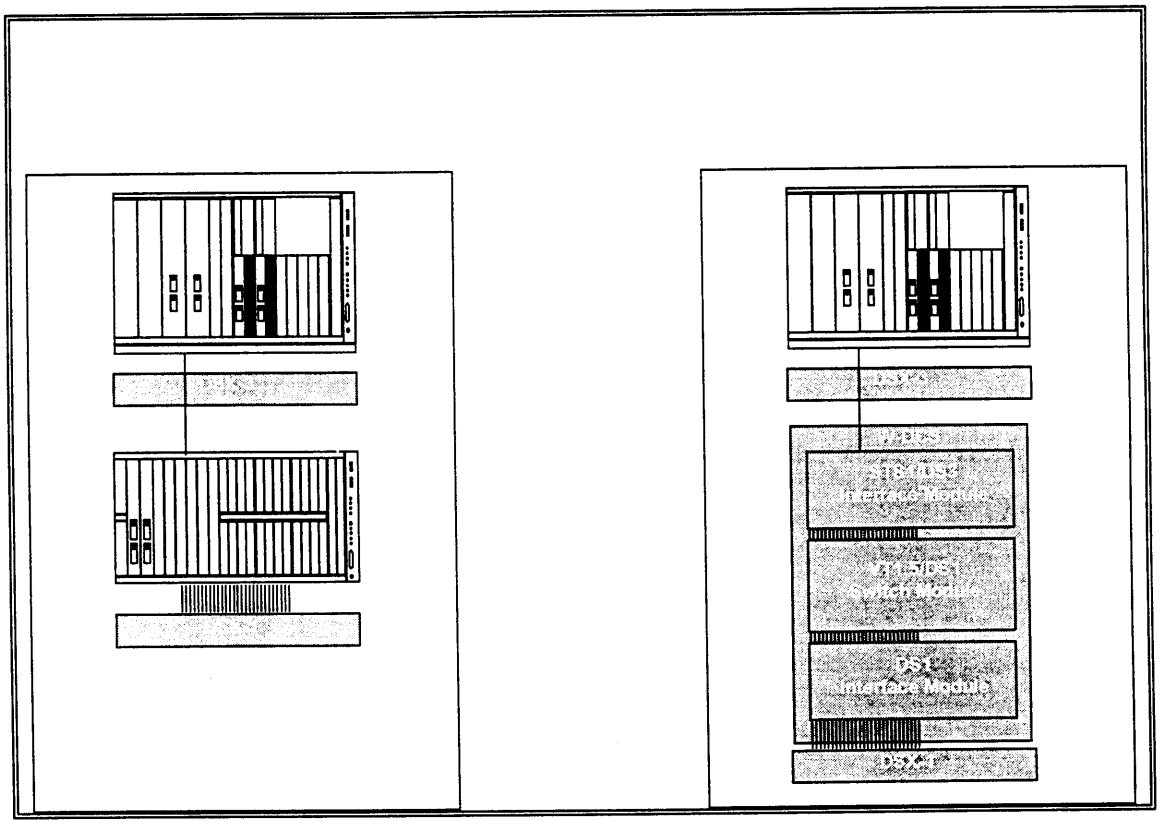


Figure II-1. UC-DS3 Architecture Examples

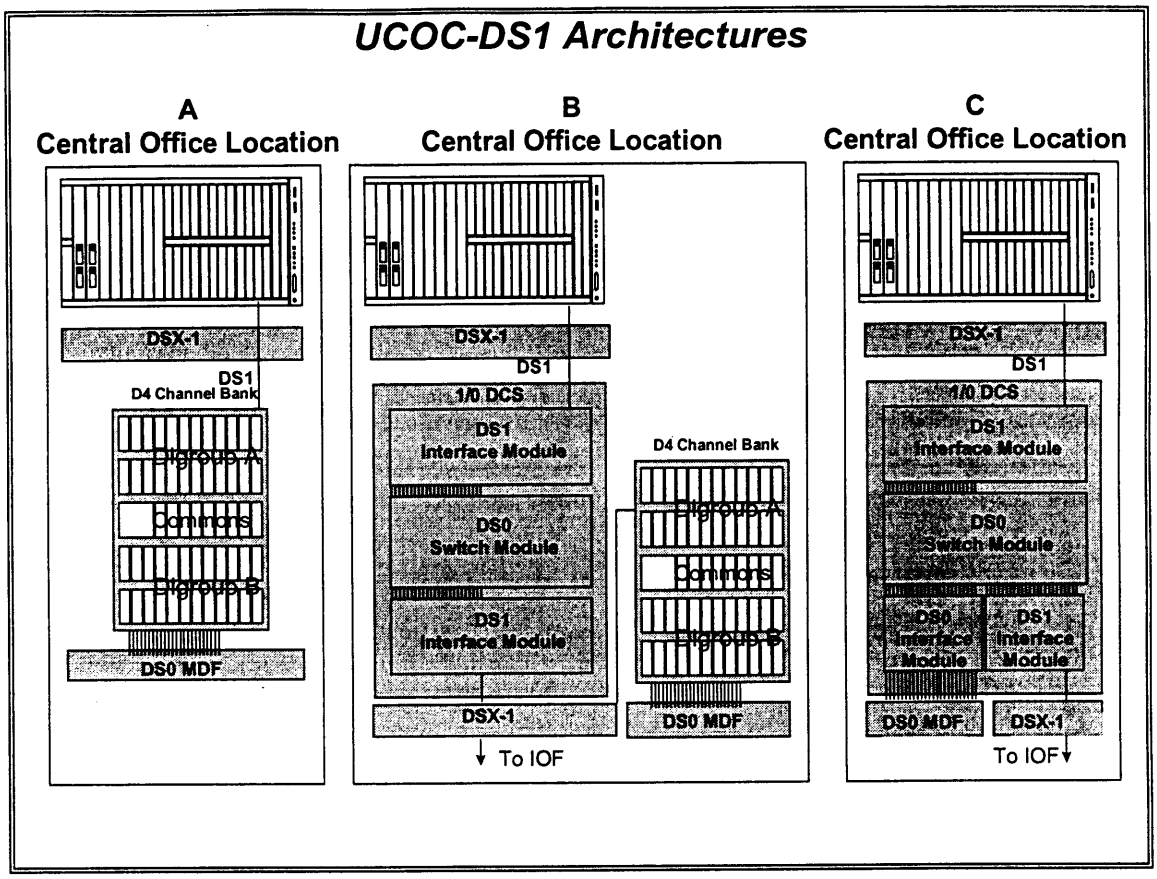


Figure II-2. **UC-DS1 Architecture Examples**

B. Operational Support Systems (OSS) Requirements

- Existing: TIRKS, NMA, WFA, PLRMS, PWS
- New: None

C. Software:

- None

III. PERFORMANCE STANDARDS/RELIABILITY

B. General Description of Performance Standards and Reliability (include "parity" requirements)

Service Performance Objectives:

- There will not be any specified performance objectives for this UNE. However, at the request of the customer, if made prior to the installation of the facilities, BellSouth will attempt to estimate the transmission loss of the channel at the customer's intended transmission wavelength: provided, however, that BellSouth does not warrant that the customer's channel will operate at that estimated loss or that the transmission loss will remain constant during the period in which the customer obtains the facilities from BellSouth.

Diversity Requirements:

- No requirements for UNEs but some level of diversity will exist in BST network (embedded and forward looking)

Performance Monitoring:

- None

Special Considerations:

- Billing Guarantees do not apply - there will be CABS cost to exclude UNEs from current processes

IV. ORDERING, ADMINISTRATION AND PROVISIONING (OA&P)

A. Intervals

- Firm Order Confirmation (FOC)
  Seven (7) days

- Targeted Installation (inclusive of FOC)
  Thirty (30) days

Notes and Rationale:

The FOC is based on a five-day service inquiry, plus two-day administration time.

The targeted installation comprises the FOC plus a twenty-three day network provisioning requirement.

The above intervals are based on receipt of a clean manual order. A Service Inquiry will be required only for DS3. An Engineering Job will be required. If equipment is required, then a field vendor will be involved. This will affect the installation interval.

Expedite charge for short intervals will apply. These products are under development at this time.

C. Description of Centers affected and their roles

Local Carrier Service Center (LCSC)
LSR will be received, Service Order Issuance, Send FOC (Firm order confirmation) to CLEC (Competitive Local Exchange Carrier)

Circuit Capacity Management (CCM)
Service Inquiry received and answered, TIRKS records prepared, facilities and equipment installed

Circuit Provisioning Group (CPG)
Circuit Designed, WORD Document Issued, DLR generated to CLEC

Outside Plant Construction (OSPC)
Circuit Installed based on WORD; Circuit Repaired based on WFA ticket

CO Operations
Circuit Installed based on WORD

Access Customer Advocacy Center (ACAC)
Receive Trouble Reports, Issue WFA ticket

AT&T	1/800-517-2511
MCI	1/800-517-5038
Sprint	1/800-988-1402

General Carriers 1/800-307-2513

When reporting a trouble:

-Provide the CLEC contact name and call back number
-Provide the BellSouth Circuit ID
-Provide the details of the trouble

C. Process Flow

DS3/OCX
UIT/ULL/LI-LC

1. CLEC CONTACTS ACCOUNT TEAM CONCERNING SERVICE

2. ACCOUNT TEAM ISSUES SERVICE INQUIRY TO OSPE AND CCM

3. OSPE AND CCM REVIEW AND RESPOND WITH DATES AND AVAILABILITY FOR SERVICE

   SPECIAL CONSTRUCTION MAY APPLY

4. OSPE AND CCM REPLY TO ACCOUNT TEAM

   OSPE ISSUES WORK ORDER TO PROVIDE EQUIPMENT
   CCM ISSUES DESIGN DOCUMENT

      IF SPECIAL CONSTRUCTION APPLIES THEN ADDITIONAL COPNTACT WITH THE CUSTOMER WILL BE NECESSARY

5. ACCOUNT TEAM REPLIES TO CLEC AND ISSUES LSR TO LCSC

6. LCSC ISSUES SERVICE ORDER

7. CPG ISSUES DESIGN DOCUMENT(S)

8. OPCC/VENDOR RESPONDS TO OSPE JOB TO PROVIDE EQUIPMENT AND OR TRANSPORT FACILITIES.

      CO OPRNS/VENDOR RESPOND TO CCM WORK ORDER

9. CO OPERATIONS RESPONDS TO CPG DESIGN DOCUMENT TO PROVIDE CONNECTIVITY.

10. UNE CENTER COORDINATES TURN-UP TESTS.

11. UNE CENTER TURNS UP SERVICE TO CLEC

V. LCSC

The LCSC is the CLECs' point of contact for ordering and billing of Unbundled Elements. The LCSC Service Representative will:

- Screen the Line Service Request (LSR) for accuracy and completeness.

- Clarify any error conditions with the CLEC.

- Issue the service order.

- Render the Firm Order Confirmation (FOC) to the CLEC.

- Respond to CLEC bill inquiries and resolve CLEC initiated disputes.

VI. RSOS

The RSOS representative works directly with the ICS staff and the Project team. The RSOS representative develops service orders to support facility based services, requests edits to support accurate issuance, and performs service order testing prior to implementation of the service.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of unbundled access to Frame Relay UNEs, including UNI, NNI, DLCI and CIR.

RESPONSE: BellSouth is not required by the Act nor by the FCC rules to provide access to frame relay or advanced services on an unbundled basis. Therefore, BellSouth does not provide or intend to provide frame relay or advanced services as UNEs.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of Multiple Tandem Access (MTA).

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, see attached 1Q00 standard interconnection agreement, attachment 3, paragraphs 2.9 through 2.13. Further responsive document(s) are proprietary. Such documents will be produced to Intermedia subject to the terms of the Protective Order entered in this proceeding.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 47

ATTACHMENT

TR 73603

BELLSOUTH TELECOMMUNICATIONS

Unbundled Dark Fiber (UDF) Technical Specifications

Technical Reference

February, 1999
Issue A

NOTICE

This Technical Reference describes Unbundled Dark Fiber (UDF). This Unbundled Network Element (UNE) can provide a Competive Local Exchange Carrier (CLEC) a fiber transmission path between customer designated preimises and a BellSouth Telecommunications, Inc. (BST) Serving Wire Center or between BST Central Offices.

BellSouth Telecommunications, Inc., reserves the right to revise this document for any reason, including but not limited to, conformity with standards promulgated by various governmental or regulatory agencies, utilization of advances in the state of the technical arts, or the reflection of changes in the design of any equipment, techniques, or procedures described or referred to herein. Liability to anyone arising out of use or reliance upon any information set forth herein is expressly disclaimed, and no representations or warranties, expressed or implied, are made with respect to the accuracy or utility of any information set forth herein.

This document is not to be construed as a suggestion to any manufacturer to modify or change any of its products, nor does this document represent any commitment by BellSouth Telecommunications, Inc., to purchase any product whether or not it provides the described characteristics.

Nothing contained herein shall be construed as conferring by implication, estoppel or otherwise, any license or right under any patent, whether or not the use of any information herein necessarily employs an invention of any existing or later issued patent.

If further information is required, please contact:

Director – Transport Systems Engineering
BellSouth Telecommunications, Inc.
1884 Data Drive
Birmingham, Alabama 35244

Unbundled Dark Fiber (UDF)
Technical Specifications

CONTENTS

Unbundled Dark Fiber (UDF) Technical Specifications

1. General

This document provides the technical specifications for Unbundled Dark Fiber (UDF) offered by BellSouth Telecommunications, Inc. (BST). This Unbundled Network Element (UNE) can provide a Competitive Local Exchange Carrier (CLEC) a fiber transmission path between a customer designated premises and a BST Serving Wire Center or between BST Central Offices. This service is sometimes referred to as Dry Fiber service but will be referred to as Dark Fiber service in this document. The term "dry" applies to the absence of DC power, whereas the term "dark" applies to the absence of regeneration.

1.1 Scope

This Technical Reference (TR) provides the technical specifications necessary for compatible operation between BST and CLECs. The requirements in this document were developed to establish a practical interface. Compliance with these specifications should provide a satisfactory interface in a high percentage of installations. If cases arise that have not been adequately addressed in this document, any resulting problems should be resolved through the cooperation of the user, BST and suppliers. BST encourages customer participation to ensure an orderly, functional and mutually trouble-free interface at all locations.

1.2 Use of This Document

Technical specifications have been established based upon Industry Standards developed by the American National Standards Institute (ANSI) and Bellcore. This TR articulates BST variations from these standards and provides clarification of specification and performance requirements as necessary.

2. Service Description

UDF service is offered as a point-to-point arrangement between a customer designated premises and BST Serving Wire Center or between BST Central Offices. UDF is offered without signal regeneration to compensate for signal losses. The service arrangement consists of four optical fibers and fiber terminating equipment as shown in Figure 1 and 2. UDF service will be routed through a BST Central Office for testing and maintenance functions. Current polices concerning recombination will be adhered to.

3. Network Rearrangements

BST reserves the right to rearrange its network and to modify the manner in which it provides service in order to meet its overall service requirements. This includes, but is not limited to, the right to engineer and construct its fiber optic facilities in accordance with its normal operations without the requirement to modify its materials, splicing techniques, or planned facility rearrangements to suit a specific customer request.

4. Fiber Transmission Media

UDF service shall be provided via single–mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. The conventional dispersion–unshifted single–mode fiber (also known as EIA/TIA Class IVa fiber) shall generally meet the requirements detailed in Bellcore GR–20–CORE, *Generic Requirements for Optical Fiber and Optical Fiber Cables,* and ITU Recommendation G.652, *Characteristics of a Single–Mode Optical Fiber Cable.*

4.1 Operating Wavelengths

The service is provided over BST single–mode fiber optic cable which support operating wavelengths of 1310 nanometers (nm) and 1550 nm.

4.2 Typical Performance Characteristics

Table 1 provides typical characteristics of optical fiber and components commonly utilized in BST's network:

Table 1 – Typical Technical Characteristics of BST Optical Fiber and Components

Wavelength λ	1310 nm	1550 nm
Typical Fiber Loss	0.5 dB/km	0.35 dB/km
Discrete Reflectance (Splices, Connectors)	–40.0 dB	–40.0 dB
Return Loss (Fiber Cable)	+24.0 dB	+24.0 dB
Medium Zero Dispersion Wavelength	1310 ± 3 nm	Not Applicable
Chromatic Dispersion (Fiber Cable)	3.5 ps/nm–km	18.0 ps/nm–km
Chromatic Dispersion Slope (Fiber Cable)	0.093 ps/(nm–km^2)	0.093 ps/(nm–km^2)
Polarization Mode Dispersion (Fiber Cable)	10 ps	10 ps

The transmission characteristics of a specific UDF application may differ from the above typical performance characteristics.

5. Mechanical Interface

At the four fiber Network Interface (NI), BST will provide duplexable SC type (EIA/TIA SCFOC/2.5) plug and jack type connectors. BST will install the connector jack to serve as the NI. BST and the customer must each provide connector plugs to terminate their fibers at the NI. Each connector plug will contain 2 fibers, one for each direction of transmission. The connector jack will be the demarcation point between BST and the Customer Installation (CI). Figure 3 depicts the Fiber Optic Mechanical Network Interface.

5.1 Optical Fiber Termination and Arrangement

Optical fibers are terminated at the customer premises in a BST approved and constructed cabinet or Fiber Distributing Frame (FDF). BST typically uses a "tray" type splice on the customer premises and connectorized fibers from that splice to the cabinet or FDF.

6. Optical Power Limitations

Customer provided lasers shall not exceed +17.0 dBm in output power at 1550 nm (Class IIIb laser). In addition, the customer shall tell BST which class of laser (see Section 9) that they will be utilizing on their equipment.

7. Engineering Design Information

BST uses a design approach based on EIA/TIA-559, *Single-Mode Fiber Optic System Transmission Design,* and GR-253-CORE, *Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer,* procedures for elements in its network.

For the purpose of optical parameter specifications, optical interfaces are referred to the Optical System Reference Diagram (Points S and R) as shown in Figure 4.

Point S is a reference point on the optical fiber just after the transmitter (Tx) optical connector(C_{Tx}). Point R is a reference point on the optical fiber just before the receiver (Rx) optical connector (C_{Rx}). Points S and R provide a convenient separation of the optical link into a transmitter subsection, a receiver subsection, and an optical path subsection. Optical parameters are specified for the transmitter at point S, for the receiver at point R, and for the optical path between Points S and R. All parameter values specified are worst-case values and are to be met over the ranges of standard operating conditions (i.e., temperature and humidity ranges); they include aging effects. The parameters are specified relative to an optical section design objective of a bit error ratio (BER) better than $1x10^{-10}$.

To ensure proper system performance it is necessary to specify attenuation and dispersion characteristics of the optical path. This specification is assumed to represent worst-case values including losses due to splices, connectors, optical attenuators (if used), or other passive optical devices, and any additional cable margin to cover allowances for the following:

(1) future modifications to the cable configuration (additional splices, increased cable lengths, etc.),

(2) fiber cable performance variations due to environmental factors, and

(3) degradation of any connector, optical attenuator (if used), or other passive optical device when provided.

For customer design purposes, BST will provide the following information, when it is available:

- Length of the fiber cable including 3% extra for possible cable reroute.
- Loss budget value in decibels/kilometer (dB/km) of fiber cable at λ= 1310 nm or λ = 1550 nm.
- Number of splices constructed and anticipated number of maintenance splices.
- Loss budget value of each splice in dB/splice.
- Loss budget value of single-mode fiber jumper in dB/jumper.

- Loss budget value of jumpers and connectors at the Lightguide Terminal Interconnect Equipment (LTIE) in dB at customer premises.
- Loss budget values of jumpers and connectors in dB used to connect fibers in BST office(s).

Note: **Loss Budget Values are end–of–life values which account for aging and are usually greater than actual measured values.**

8. Regeneration

UDF service is offered without regeneration, so it will be incumbent that the customer maintain, adequate margins to insure proper working of the fiber optic system.

9. Safety Requirements

The fiber optic system and required optical test equipment used in conjunction with UDF service must be registered and certified with the Department of Health, Education and Welfare Bureau of Radiological Health as specified in 21 CFR 1040.10. This document specifies performance requirements, labeling requirements and informational requirements. Documentation demonstrating system certification shall be available to assist in the determination of fiber optic safety precautions required to install, operate and maintain the system.

Optical powers from lasers are also classified by the International Electrotechnical Commission (IEC). Depending on the potential danger, IEC 825 requires that all laser equipment be classified into one of the following classes; 1, 2, 3a, 3b, or 4. Because the minimum power limits for class 4 lasers are not used in telecommunications, they are not considered for the purposes of this document. The other classes of lasers, the power limitations and the accompanying safety requirements are summarized in Table 2 on the following page.

Table 2 – IEC 825–1 and 825–2 Classes of Lasers, Power Limits & Safety Requirements

Laser	Maximum Power Levels		Safety Requirements
	1310 nm	**1550 nm**	
Class 1	9.4 dBm	10.0 dBm	Inherently Safe • Protective housing to prevent higher than classified emission. • Safety interlock in the housing to prevent access to non–classified emission levels. • Classification labels on the product and in the promotional literature. • Caution labels on service panels, interlocked or not • User safety information in operator and service manuals.
Class 2[1]	NA	NA	NA
Class 3a	13.8 dBm	17.0 dBm	Safe unless viewing aids are used Additional requirements to all of the above: • Key control • Beam stop to automatically disable the laser if no access is required. • Audible or visible "Laser On" warning.
Class 3b	27.0 dBm	27.0 dBm	Additional requirements to all of the above: • Remote control switch to allow disabling the laser by a door circuit. • Aperture label to indicate the location of the radiation output.

Special precautions and requirements for installation and use of optical systems (including amplifiers) and a description of viewing aids are given in IEC 825–2.

[1] Class 2 is used for visible laser products emitting wavelengths from 400 to 700 nm, these requirements are not considered pertinent.

10. Maintenance

The customer must cooperatively disable (turn–off) any optical transmission equipment on a dark fiber arrangement whenever BST must perform maintenance on those facilities.

11. References

GR–20–CORE, Generic Requirements for Optical Fiber and Optical Fiber Cable, Issue 1, September, 1994

GR–63–CORE, Network Equipment–Building System (NEBS), Generic Equipment Requirements, Issue 1, October 1995

GR–253–CORE, Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer, Issue 2, December 1995

GR–326–CORE, Generic Requirements for Single–Mode Connectors and Jumper Assemblies, Issue 2, December 1996

Bellcore Technical References may be ordered by contacting:

Bellcore Customer Relations
8 Corporate Place – Room 3A–184
Piscataway, NJ 08854–4156
1–800–521–2673

EIA/TIA–559, Single–Mode Fiber Optic System Transmission Design

OFSTP–2, Effective Transmitter Output Power Coupled into Single–Mode Fiber Optic Cable

OFSTP–3, Fiber Optic Terminal Receiver Sensitivity and Maximum Receiver Input

OFSTP–10, Measurement of Dispersion Power Penalty in Single–Mode Systems

OFSTP–11, Measurement of Single Reflection Power Penalty for Fiber Optic Terminal Equipment

EIA/TIA documents may be ordered by contacting:

Telecommunications Industry Association
Engineering Department
2001 Pennsylvania Avenue N.W.
Washington, D.C. 20006
(202) 457–4966

IEC 825–1, Safety of Laser Products, Part 1: Equipment classification, requirements and user's guide, First Edition, 1993–11

IEC 825–2, Safety of Laser Products, Part 2: Safety of optical fiber communication systems, First Edition, 1993–09

ANSI Z136.2–1998, American National Standard for the Safe Use of Optical Fiber Communications Systems Utilizing Laser Diode and LED Sources

IEC and ANSI documents can be ordered from:

Global Engineering Documents
15 Inverness Way East
Englewood, CO 80112–5704
(800) 854–7179

21 CFR 1040, Performance Standard for Laser Products

This document may be obtained by contacting:

Director, Division of Compliance
Bureau of Radiological Health
5600 Fishers Lane
Rockville, MD 20857

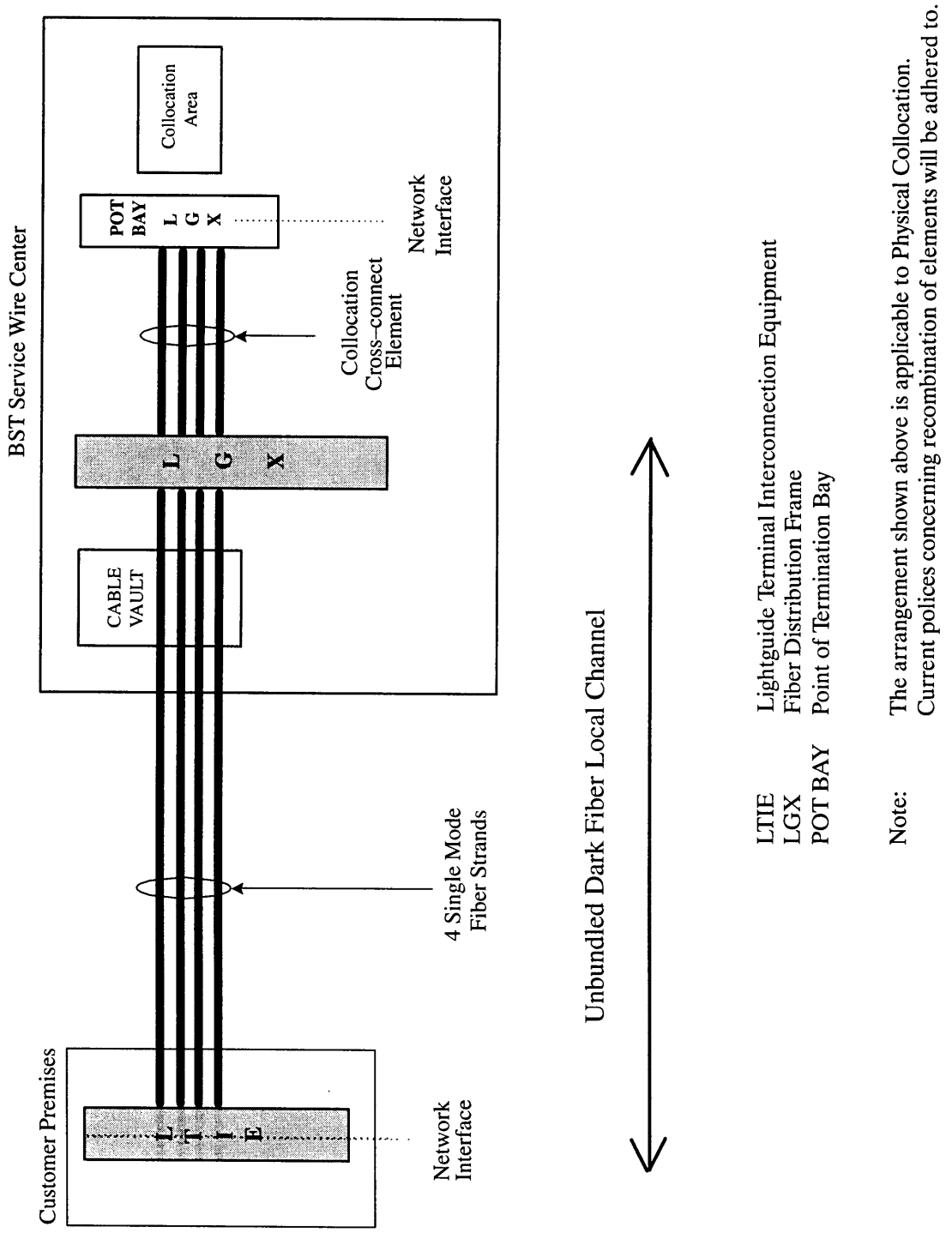


Figure 1 – Unbundled Dark Fiber Customer Premises to BST Serving Wire Center

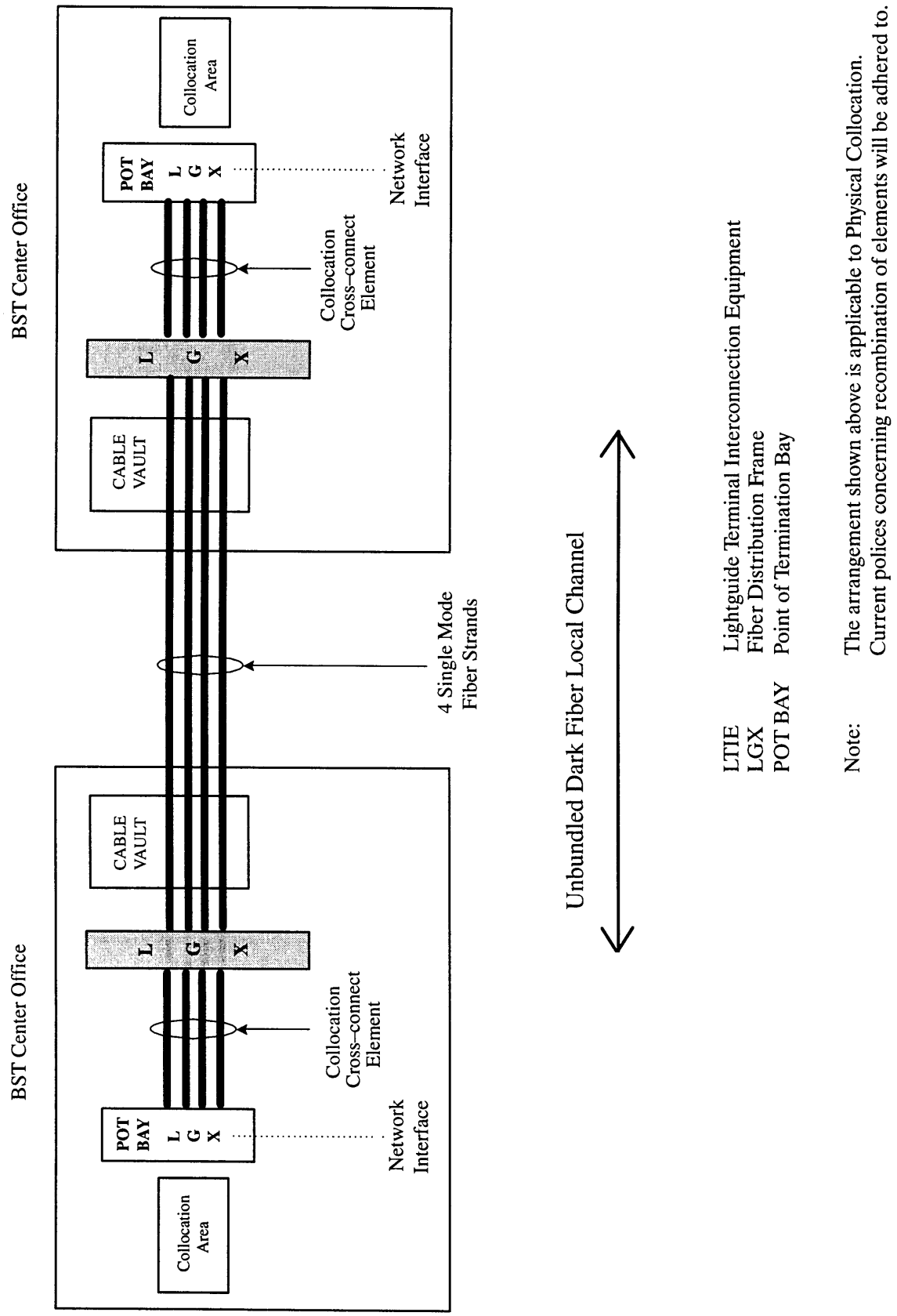
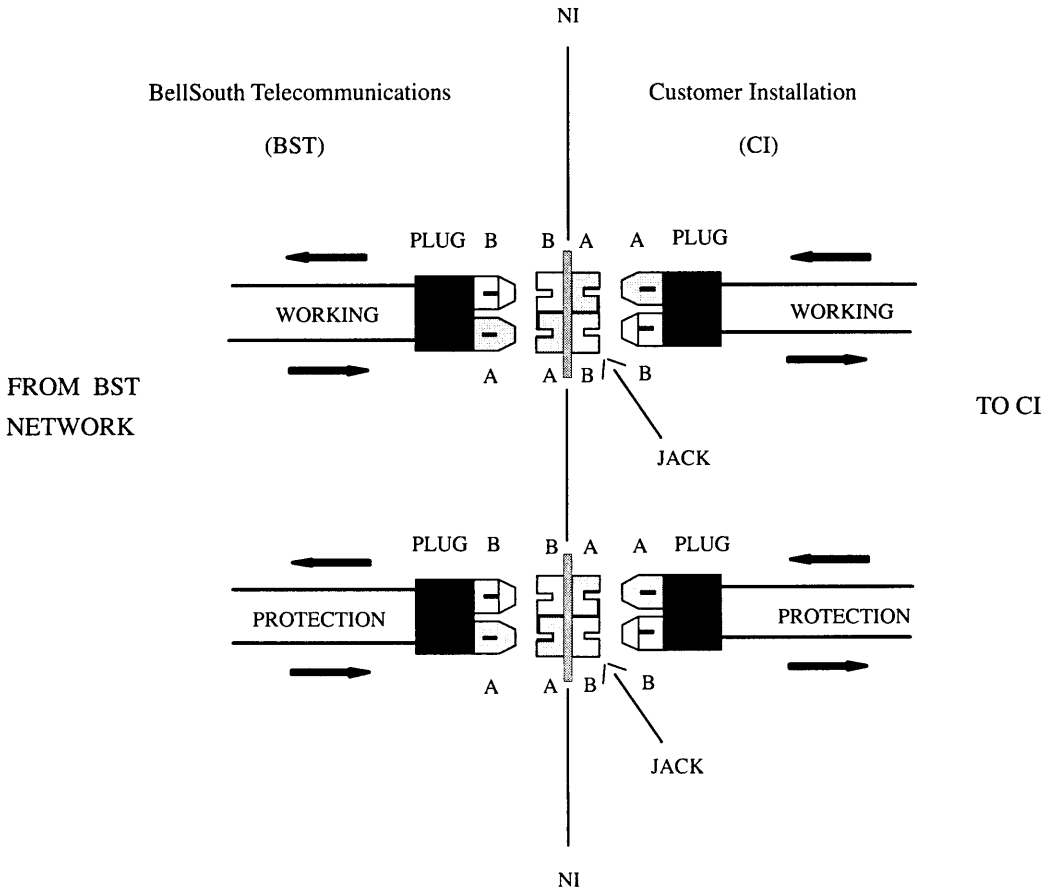


Figure 2 – Unbundled Dark Fiber BST Central Office to BST Central Office



NOTES:

1 LIGHT LEAVES "A" PLUG AND ENTERS "A" JACK

2 LIGHT LEAVES "B" JACK AND ENTERS "B" PLUG

3 JACK AT NI PROVIDED BY BST (OPTIONALLY MAY BE PART OF OTHER NETWORK EQUIPMENT)

4 A SINGLE FIBER IS USED FOR EACH DIRECTION OR TRANSMISSION

5 FOR 4 FIBER INTERFCE BOTH WORKING AND PROTECTION PROVIDED

➡ DIRECTION OF LIGHT

Figure 3 – 4 Fiber Optic Mechanical Network Interface

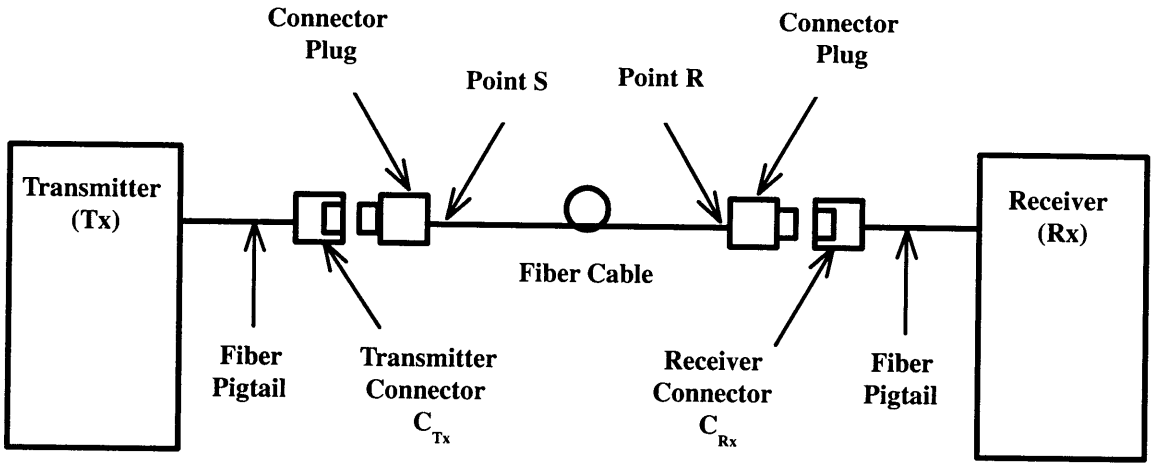


Figure 4 – Optical System Interfaces (Points S and R)

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Unbundled Dedicated Transport Interdepartmental Service Description Issue 8 January 24, 2000

Document Prepared by:

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V. LCSC

VI. RSOS

I MARKET SERVICE DESCRIPTION

Background:
Unbundled Network Elements (UNEs) were mandated by the U.S. Congress (1996 Telecom Act) in order to promote local telecommunications competition. The FCC through orders have defined UNEs and their uses. In order to qualify to purchase a UNE, the Competitive Local Exchange Company (CLEC) must provide and use the UNE for exchange and exchange access as well as collocate. Exchange and Exchange Access includes local, intraLATA toll, and transit traffic. Transit is defined as Switched Access traffic which utilizes BST's network to access another' network and includes CLEC to CLEC traffic, CLEC to Independent Company traffic, and CLEC to Interexchange Carrier traffic. It is the CLEC's responsibility to interconnect UNEs in order to provide its services. BST cannot restrict the services offered utilizing UNEs. Once purchased any telecommunications service, except enhanced services, can ride a UNE. BST has not connected UNEs, which are offered via Interconnection Agreement, unless a separate agreement is finalized.

UNEs can be used by a CLEC to (1) build its network and/or (2) for Local Interconnection. Local Interconnection is the interconnection of BST's network and the CLEC network at any technically feasible point.

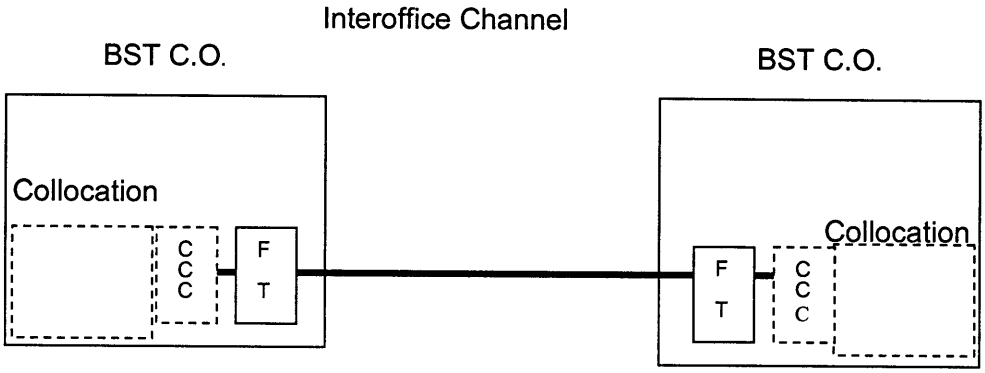
Dedicated Transport should be provisioned using the following rules:
RULE 1: At least one end of a UNE must terminate in collocation, except for channelized Local Channel UNEs.
RULE 2: The only connection allowed to a Channelized UNE facility multiplexer is the connection of a COCI to the Collocation, a COCI to a BellSouth switch or a COCI to a BellSouth facility termination.
RULE 3: BST does not connect tariffed services to UNEs.
RULE 4:
A. Dedicated Transport Local Channel and Interoffice Channel UNEs terminated to collocation should be treated like non-switched facilities.
B. Channelized Dedicated Transport UNEs terminating to a BST switch for local interconnection trunks should be treated like switched traffic. (FCC#1 Switched Access tariff USOCs should be used.) Self reported PIU/PLF/PLU should be used to bill appropriate tariff and contracts rates. The B part will be handled via Product Management and the Contract Database personnel. It does not require SME support.

A. Basic Service Features:

By definition Dedicated Transport is dedicated to a single customer. Unbundled Dedicated Transport is a point to point service consisting of four possible components: interoffice channel, local channel, loops, and channelization.

(1) **Definition: An Interoffice Channel provides a dedicated point to point transmission path, and it's associated electronics, between BST's wire centers**

or switches. Collocation is required at both ends of within a BST to BST configuration. Figure 1 represents a non-channelized Dedicated Transport Interoffice Channel.



FT – Facility Termination
CCC - Collocation Cross-Connect

FIGURE 1

(2) **Definition: Local Channel is the dedicated point to point transmission path and the associated electronics between the CLEC's Point of Presence (POP) and the POP's Serving Wire Center** Collocation is required at SWC. Figure 2 represents a non-channelized Dedicated Transport Local Channel UNE.

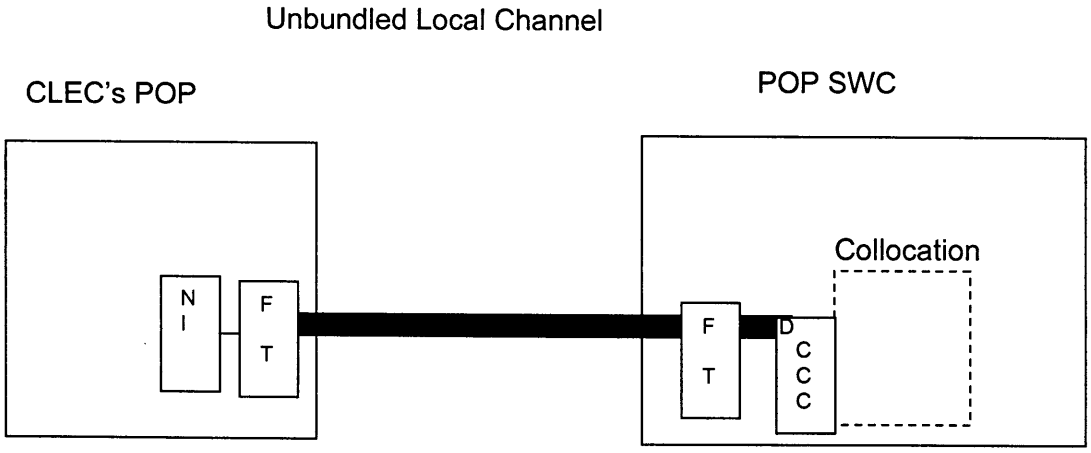


FIGURE 2

NI = Network Interface

(3) **Definition: Channelization is the function performed when a higher level facility is separated into lower level services, e.g. DS3 to DS1s or DS1 to DS0s.** The facility is said to be channelized. This can be accomplished through the use of a multiplexer or a Digital Cross-connect System (DCS). Once the basic channelization

system has been installed, channels can be activated all at once or on an as-needed basis. Like the tariffed service, this service is available where available (See NECA 4).

FIGURE 3
Unbundled Channelized Local Channel

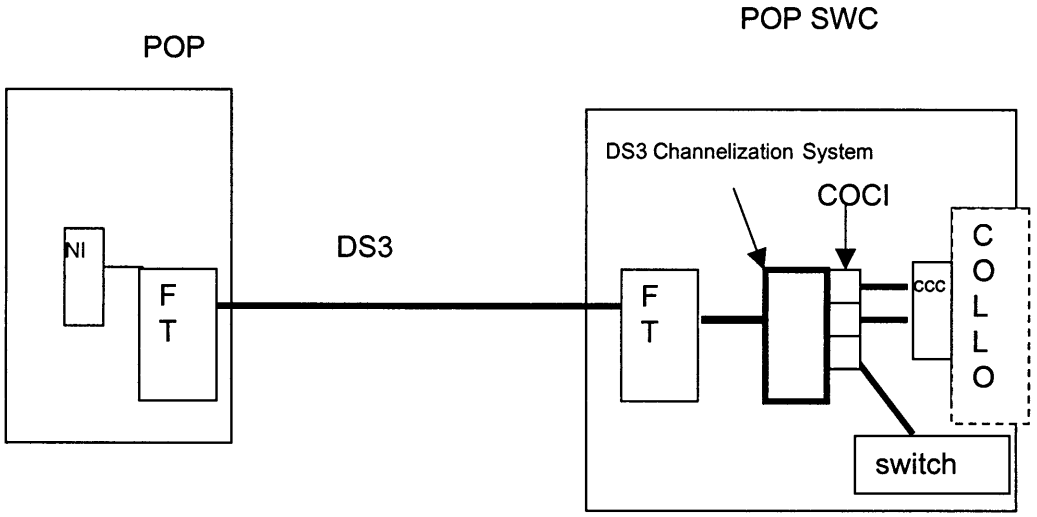


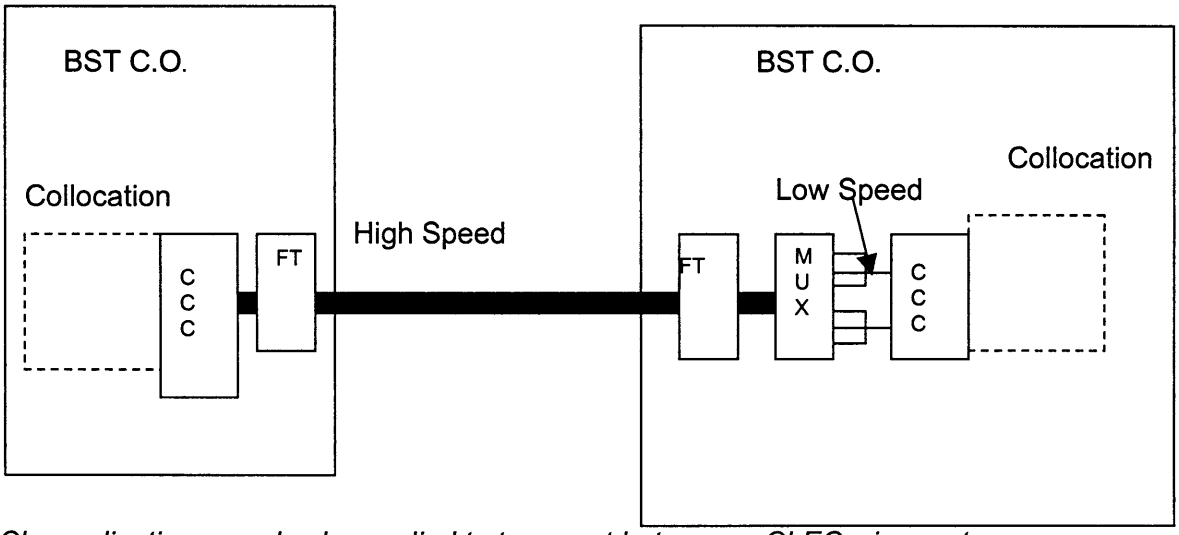
Figure 3 shows a DS3 Local Channel being channelized into DS1 interfaces through the use of a DS3 Channelization System (multiplexer) and Central Office Channel Interfaces (COCI).

(4) Both the Local Channel and the Interoffice Channel can be channelized through the use of a multiplexing device. In this arrangement the multiplexer can be on either end of

the interoffice facility depending on the customer's needs. Figure 4 shows an example of a channelized Interoffice Channel UNE.

FIGURE 4

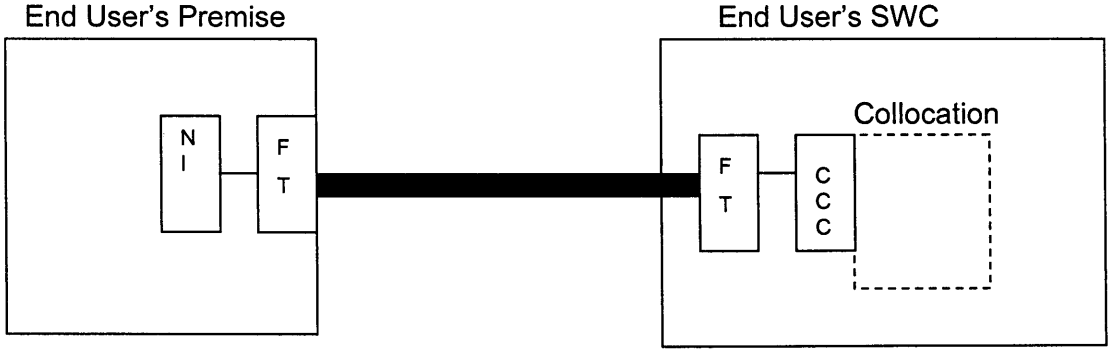
Unbundled Channelized Interoffice Channel



Note: Channelization can also be applied to transport between a CLEC wire center or switch location and a BST Central office. All examples within this document will show BST Central Offices.

(5) **A Loop is the dedicated point to point transmission path and the associated electronics between the end user's premises and the end user's serving wire center.** Collocation is required at SWC.

FIGURE 5



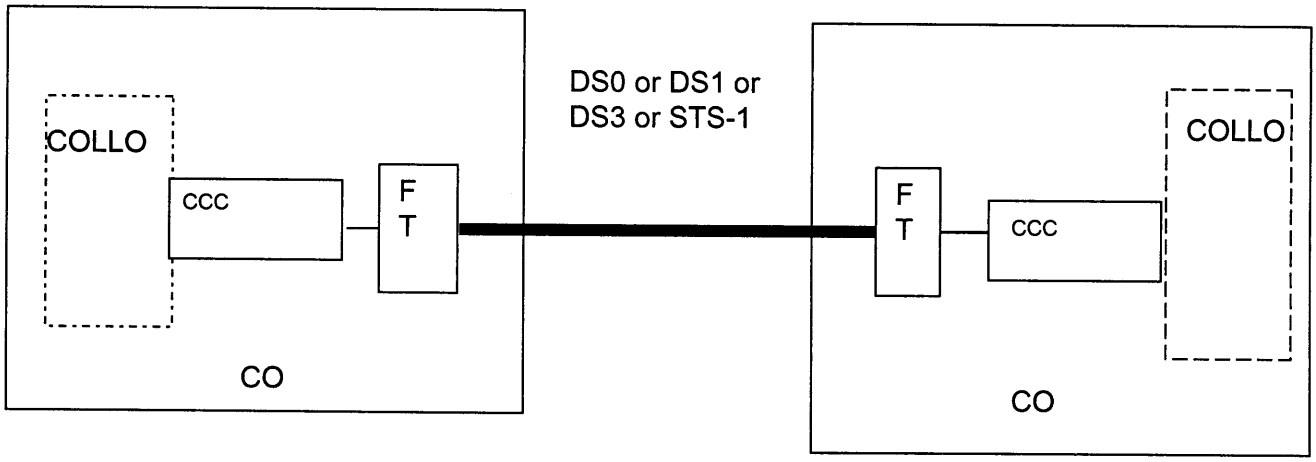
A. *Basic Service Capabilities, Deployment, & Pricing Structure:*

Unbundled Dedicated Transport will be offered as dedicated transport at multiple band widths with the **associated deployment priorities:**

(1) DS0, DS1, DS3, and STS-1 Interoffice Channel UNE services

Dedicated transport, point to point (wire center collocation to wire center collocation). There are four services. *NOTE: The Dedicated Transport Project Team has already developed the DS1 , DS3. STS-1 versions of this service.*

FIGURE 6



DS0, DS1, and DS3 have asynchronous electrical interfaces. STS-1 is an asynchronous SONOT based electrical interface offering.

Note: Is is assumed that the Collocation cross-connect required above have been developed by Collocation Project Team.

Pricing Structure:

Interoffice Transport - Dedicated - VG
2-Wire VG - per mile per month
2-Wire VG - Facility Termination per month
NRC - Facility Termination -1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge -1st
NRC - Facility Termination - Disconnect Charge -Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect--Add'l

OR

Interoffice Transport - Dedicated - DS0 - 56/64 KBPS
DS0 - per mile per month
DS0 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

OR
INTEROFFICE TRANSPORT - DEDICATED - DS1
DS1 - PER MILE PER MONTH
DS1 - FACILITY TERMINATION PER MONTH
NRC - FACILITY TERMINATION - 1ST
NRC - FACILITY TERMINATION - ADD'L
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - 1ST
NRC - FACILITY TERMINATION -DISCONNECT CHARGE - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT--1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT—ADD'L

OR
INTEROFFICE TRANSPORT - DEDICATED - DS3
DS3 - PER MILE PER MONTH
DS3 -FACILITY TERMINATION PER MONTH
NRC - DS3 - FACILITY TERMINATION -1ST
NRC - DS3 - FACILITY TERMINATION - ADD'L
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - 1ST
NRC - FACILITY TERMINATION - DISCONNECT CHARGE - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT--1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT—ADD'L

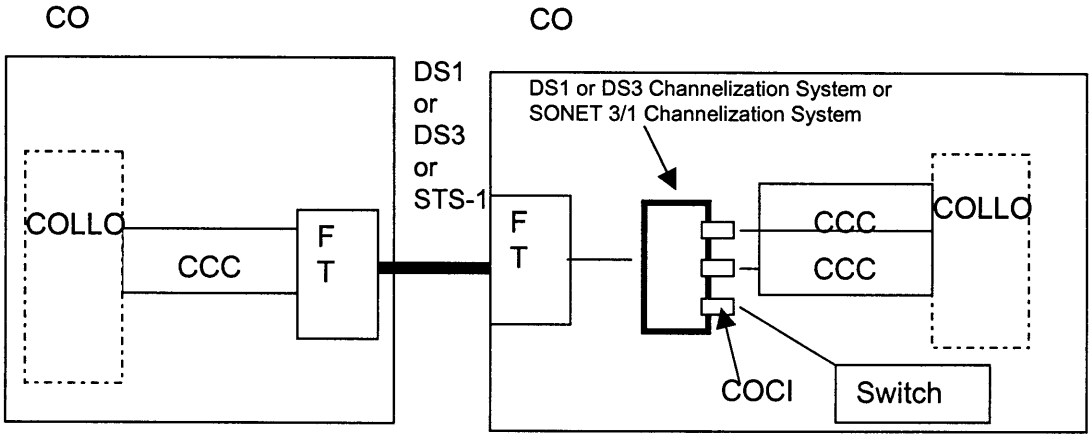
ORINTEROFFICE TRANSPORT - DEDICATED - STS-1
STS-1 - PER MILE PER MONTH
STS-1 -FACILITY TERMINATION PER MONTH
NRC - STS-1 - FACILITY TERMINATION -1ST
NRC - STS-1 - FACILITY TERMINATION - ADD'L
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - 1ST
NRC - INCREMENTAL CHARGE--MANUAL SVC ORDER - ADD'L

Note: The disconnect charges for the first and additional facility termination and incremental manual service order need to be developed.

(2) Channelization DS3, STS-1, and DS1 Interoffice Channel UNE Service

Dedicated transport, point to point (wire center collocation to wire center collocation) with Channelization.

FIGURE 7



NOTE: This example shows the high speed leg as the interoffice facility. The alternative architecture with the low speed leg as interoffice facility is also allowed.

The initial set of Channelization (multiplexing) capabilities will be as follows:

- DS3 Channelization System - An element that channelizes a DS3 signal into 28 DS1s
- STS-1 Channelization System – An element that channelizes a STS-1 signal into 28 DS1s
- DS1 Channelization System - An element that channelizes a DS1 signal into 24 DS0s, usually a D4 channel bank.
- Central Office Channel Interfaces (COCI): Elements that can be activated on a channelization system.
  - DS1 can be activated on a DS3 Channelization System via a COCI.
  - Voice Grade (VG), Digital Data (OCU-DP), or ISDN BRI (BRITE) COCI can be used to activate a DS0 channel on a DS1 Channelization System, usually a D4 channel bank.
- AMI and B8ZS line coding with either Super Frame (SF) and Extended Super Frame (ESF) framing formats will be supported.

Pricing Structure:

Interoffice Transport - Dedicated - DS1
DS1 - per mile per month
DS1 - Facility Termination per month
NRC - Facility Termination - 1st
NRC - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination -Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

DS1 Channelization (DS1 to DS0)
per Channelized System (24 DS0) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
- Interface
per OCU-DP(data) card per month (2.4-64kbs)
NRC - 1st
NRC - Add'l
per BRITE card per month
NRC - 1st
NRC - Add'l
per VG card per month (DS0)
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

Interoffice Transport - Dedicated - DS3
DS3 - per mile per month
DS3 -Facility Termination per month
NRC - DS3 - Facility Termination -1st
NRC - DS3 - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

DS3 Channelizaton (DS3 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

INTEROFFICE TRANSPORT - DEDICATED – STS-1
STS-1 - per mile per month
STS-1 -Facility Termination per month
NRC – STS-1 - Facility Termination -1st
NRC – STS-1 - Facility Termination - Add'l
NRC - Facility Termination - Disconnect Charge - 1st
NRC - Facility Termination - Disconnect Charge - Add'l
NRC - Incremental Charge--Manual Svc Order - 1st

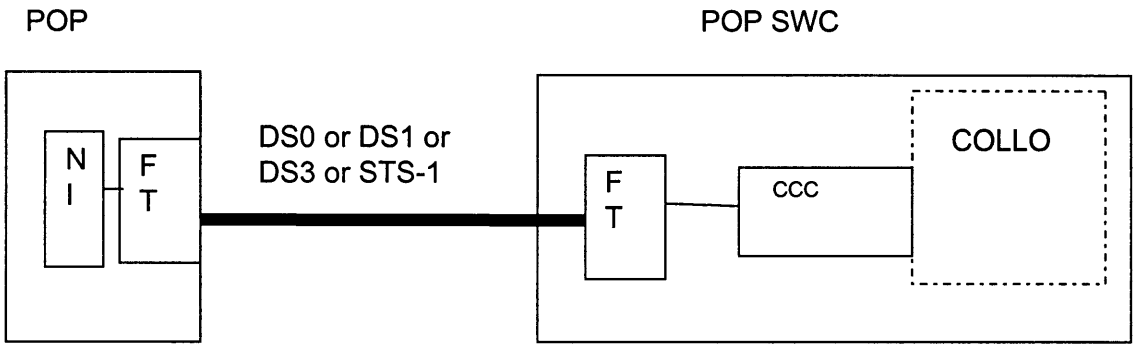
NRC - Incremental Charge--Manual Svc Order - Add'l
NRC - Incremental Charge--Manual Svc Order-Disconnect--1st
NRC - Incremental Charge--Manual Svc Order-Disconnect—Add'l

STS-1 Channelizaton (STS-1 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

(3) DS0, *DS1, DS3, and STS-1 Local Channel UNE services*

Dedicated transport, point to point (POP to POP SWC collocation). There are four services.

FIGURE 8



NI = Network Interface

Note: It is assumed that the Collocation cross-connect required have been developed by Collocation Project Team. The Dedicated Transport Project Team has already developed the DS1, DS3 and STS-1 BST to BST version of this service..

Pricing Structure:

Local Channel - Dedicated - 2-Wire VG
- Monthly Recurring per month
- NRC - 2-wire VG - 1st
- NRC - 2-wire VG -Add'l
- NRC - 2-Wire VG - Disconnect Chg - 1st
- NRC - 2-Wire VG - Disconnect Chg - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - 1st
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 2-Wire VG - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - 4-Wire VG
- Monthly Recurring per month
- NRC - 4-Wire VG - 1st
- NRC - 4-Wire VG - Add'l
- NRC - 4-Wire VG - Disconnect Chg - 1st
- NRC - 4-Wire VG - Disconnect Chg - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - 1st
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order - Add'l
- NRC - 4-Wire VG - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - DS1
- DS1 Monthly Recurring per month
- NRC - DS1 - 1st
- NRC - DS1 - Add'l
- NRC - DS1 - Disconnect Chg - 1st
- NRC - DS1 - Disconnect Chg - Add'l

NRC - DS1 - Incremental Charge--Manual Svc Order - 1st
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect

OR

Local Channel - Dedicated - DS3
DS3 Monthly Recurring per month
NRC - DS3 - Facility Termination - 1st
NRC - DS3 - Facility Termination - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - DS3 -Incremental Charge--Manual Svc Order - 1st
NRC - DS3 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

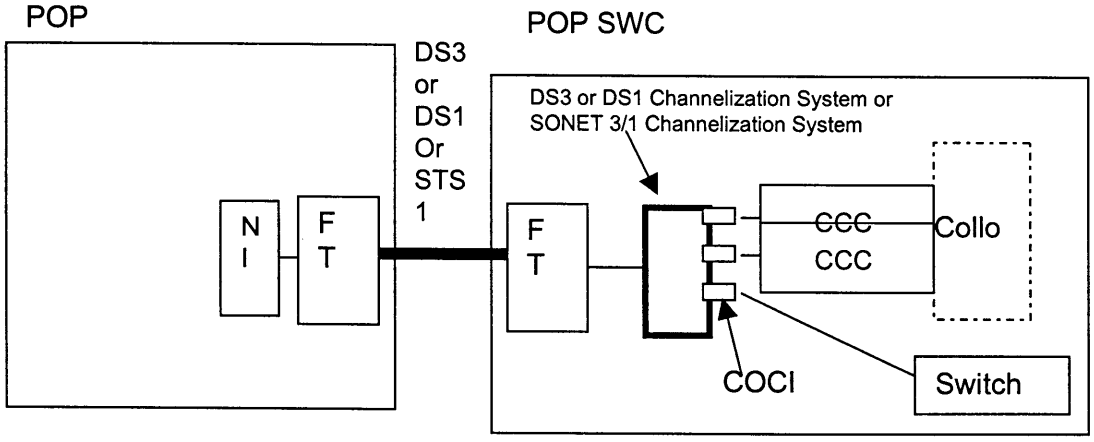
OR

LOCAL CHANNEL - DEDICATED – STS-1.....
STS-1 Monthly Recurring per month
NRC – STS-1 - Facility Termination - 1st
NRC - STS-1 - Facility Termination - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - STS-1 -Incremental Charge--Manual Svc Order - 1st
NRC - STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

(4) Channelized DS3/STS-1/DS1Local Channel UNE Service

Dedicated transport, point to point (POP to POP SWC collocation) with channelization. *Note: There are three services. NOTE: This example shows the high speed leg as the interoffice facility. The alternative architecture with the low speed leg as interoffice facility is also allowed.*

FIGURE 9



Pricing Structure:

Local Channel - Dedicated - DS1
DS1 Monthly Recurring per month
NRC - DS1 - 1st

NRC - DS1 - Add'l
NRC - DS1 - Disconnect Chg - 1st
NRC - DS1 - Disconnect Chg - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - 1st
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect

DS1 Channelization (DS1 to DS0)
per Channelized System (24 DS0) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
- Interface
per OCU-DP(data) card per month (2.4-64kbs)
NRC - 1st
NRC - Add'l
per BRITE card per month
NRC - 1st
NRC - Add'l
per VG card per month (DS0)
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

Local Channel - Dedicated - DS3
DS3 Monthly Recurring per month
NRC - DS3 - Facility Termination - 1st
NRC - DS3 - Facility Termination - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - DS3 -Incremental Charge--Manual Svc Order - 1st
NRC - DS3 - Incremental Charge--Manual Svc Order - Add'l
NRC - DS3 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - DS3 - INCREMENTAL CHARGE--MANUAL SVC ORDER-DISCONNECT-ADD'L

DS3 Channelizaton (DS3 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

OR

LOCAL CHANNEL - DEDICATED – STS-1.....
STS-1 Monthly Recurring per month
NRC – STS-1 - Facility Termination - 1st
NRC - STS-1 - Facility Termination - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC – STS-1 - Incremental Charge--Manual Svc Order-Disconnect
NRC - STS-1 -Incremental Charge--Manual Svc Order - 1st

NRC - STS-1 - Incremental Charge--Manual Svc Order - Add'l
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect -1st
NRC - STS-1 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

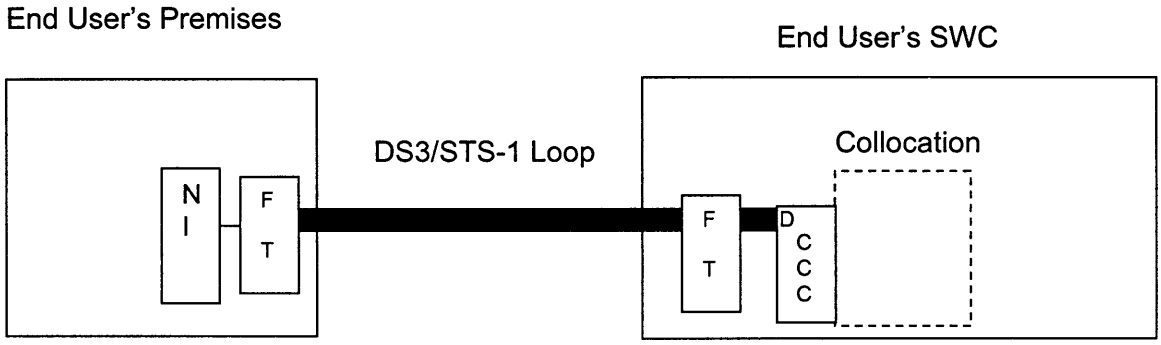
STS-1 Channelizaton (STS-1 to DS1)
per Channelized System (28 DS1) per month
NRC - 1st
NRC - Add'l
NRC -1sr - Disconnect
NRC -Add'l - Disconnect
per Interface per month
NRC - 1st
NRC - Add'l
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -1st
Channel System - Incremental Cost - Manual Svc. Order vs. Electronic -Add'l
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - 1st
Incremental Cost-Manual Svc. Order vs. Elect -Disconnect - Add'l

(5) DS3/STS-1 UNE Loop

Note: There are two services.

FIGURE 10

Unbundled DS3/STS-1 UNE Loop



Pricing Structure:

Loop - DS3

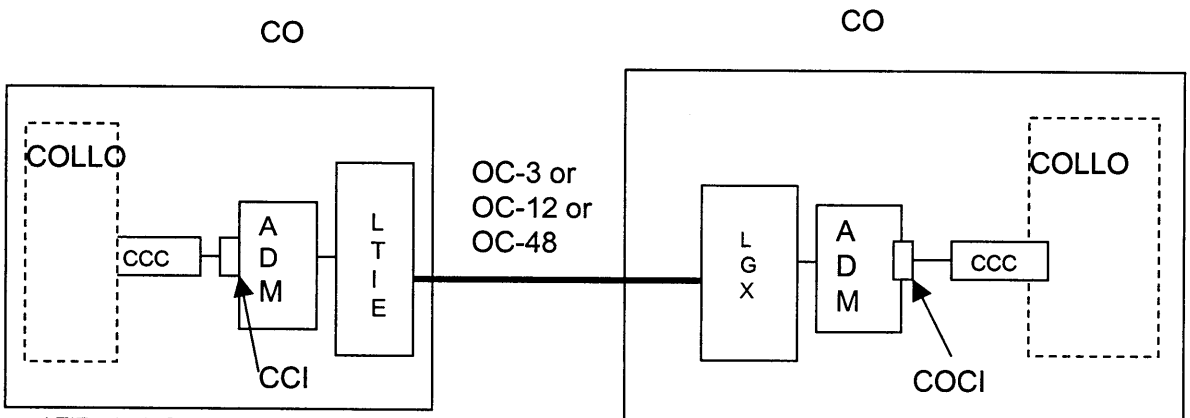
- Unbundled Local Loop - DS3 - per Mile
- Unbundled Local Loop - DS3 - per Facility Termination
- NRC - DS3 Loop - Facility Termination - 1st
- NRC - DS3 Loop - Facility Termination - Add'l
- NRC - DS3 - Facility Termination - Disconnect - 1st
- NRC - DS3 - Facility Termination - Disconnect - Add'l
- NRC - DS3 Loop -Incremental Charge--Manual Svc Order - 1st
- NRC - DS3 Loop - Incremental Charge--Manual Svc Order - Add'l
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
- NRC - DS3 - Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

(6) OC-3, OC-12, OC-4 Interoffice Channel UNE services

Offered as dedicated transport, point to point (wire center collocation to wire center collocation). OC-3 is equal to 3 DS3/STS-1 or 84 DS1 Capacity system. OC-12 is equal to a 12 DS3/STS-1 or 4 OC-3 or 336 DS1 Capacity System. OC-48 is equal to a 48 DS3/STS-1 or 16 OC-3 or 1344 DS1 Capacity System. OC-48 is essentially four OC-12's. OC-48 will have a OC-12 interface. All OC level services are synchronous SONET based optical services.

Note: There are three services.

FIGURE 11



LTIE = LightGuide Terminating Interface Equipment
ADM = Add/Drop Multiplexer

Pricing Structure:

Interoffice Transport - Dedicated - OC3
- OC3 -per mile per month
- OC3 -Facility Termination per month
- NRC - Facility Termination - 1st
- NRC - Facility Termination - Add'l
- NRC - OC3 - Facility Termination - Disconnect Chg - 1st
- NRC - OC3 - Facility Termination - Disconnect Chg - Add'l
- NRC - OC3 - Incremental Cost - Manual Svc Order -1st
- NRC - OC3 - Incremental Cost - Manual Svc Order -Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-1st
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:

DS1
DS3
STS-1
OC-3

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1
DS3
STS-1
OC-3

OR

Interoffice Transport - Dedicated - OC12

OC12 -per mile per month
OC12 -Facility Termination per month
NRC - OC12- Facility Termination - 1st
NRC - OC12- Facility Termination - Add'l
NRC - OC12 - Facility Termination -Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Cost - Manual Svc Order -1st
NRC - OC12 - Incremental Cost - Manual Svc Order -Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 (OC-3 channel system required)

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1 (OC-3 Channel System required)
DS3
STS-1
OC-3
OC-12

OR .....

Interoffice Transport - Dedicated - OC48

OC48 -per mile per month
OC48 -Facility Termination per month
OC48 -per Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC - OC48 - Interface OC12 on OC48 - Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - Add'l
NRC - OC48 - Incremental Cost - Manual Svc. Order -1st
NRC - OC48 - Incremental Cost - Manual Svc. Order -Add'l
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order -1st
NRC - OC48 - Interface- Incremental Cost - Manual Svc. Order -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-Add'l

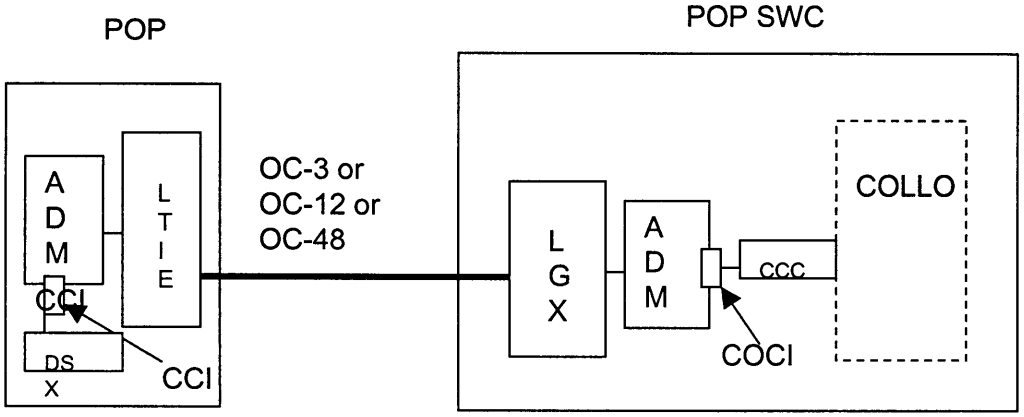
Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 (OC-3 channel system required)

Central Office Channel Interfaces (COCI) billed on a per interface basis:
DS-1 (OC-3 Channel System required)
DS3
STS-1
OC-3
OC-12

(7) OC-3, OC-12, and OC-48 Local Channel UNE services

Offered as dedicated transport, point to point (POP to POP SWC collocation). OC-3 is equal to 3 DS3/STS-1 or 84 DS1 Capacity system. OC-12 is equal to a 12 DS3/STS-1 or 4 OC-3 or 336 DS1 Capacity System. OC-48 is equal to a 48 DS3/STS-1 or 16 OC-3 or 1344 DS1 Capacity System. *Note: There are three services.*

FIGURE 12



LTIE = LightGuide Terminating Interface Equipment
ADM = Add/Drop Multiplexer

Pricing Structure:

Local Channel - Dedicated - OC3
- OC3 per mile per month
- OC3 Facility Termination per month
- NRC - OC3 - Facility Termination - 1st
- NRC - OC3 - Facility Termination - Add'l
- NRC - OC3 - Facility Termination - Disconnect Chg - 1st
- NRC - OC3 - Facility Termination - Disconnect Chg - Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
- NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-1st
- NRC - OC3 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
- OC-3
- DS3
- STS-1
- DS1

Central Office Channel Interfaces (COCI) billed on a per interface basis:
- OC-3
- DS3
- STS-1
- DS-1

Local Channel - Dedicated - OC12
- OC12 per mile per month
- OC12 Facility Termination per month
- NRC - OC12 - Facility Termination - 1st

NRC - OC12 - Facility Termination - Add'l
NRC - OC12 - Facility Termination -Disconnect Chg - 1st
NRC - OC12 - Facility Termination - Disconnect Chg - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order - 1st
NRC - OC12 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-1st
NRC - OC12 - Incremental Charge--Manual Svc Order-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3,
STS-1
DS1 not available at customer premise. No OC-3 channel system required.

Central Office Channel Interfaces (COCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS-1 (OC-3 Channel System required)

OR
Local Channel - Dedicated - OC48
OC48 per mile per month
OC48 Facility Termination per month
OC48 - Interface OC12 on OC48 per month
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination -Add'l
NRC - OC48 - Facility Termination - Disconnect Chg - 1st
NRC - OC48 - Facility Termination - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect Chg - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st
NRC -OC48 - Interface OC12 on OC48 -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order - 1st
NRC - OC48 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order-Disconnect-Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order vs. Electronic-Disconnect-Add'l

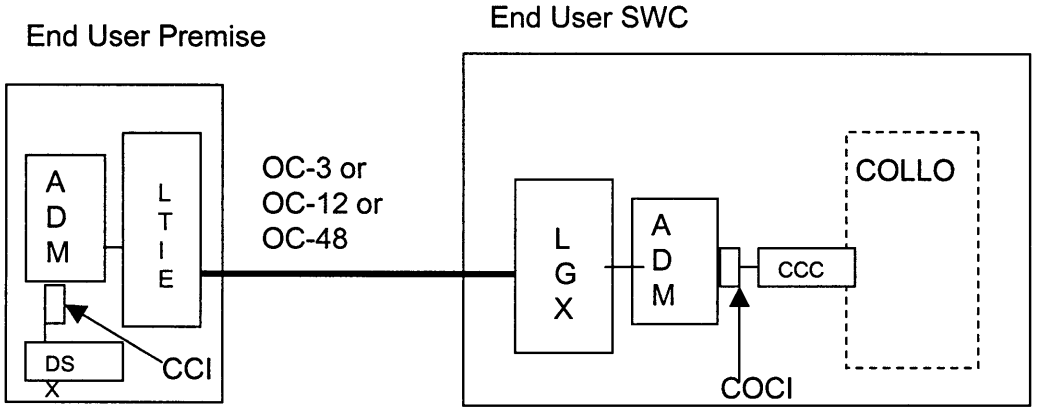
Customer Channel Interface (CCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS1 not available at customer premise. No OC-3 channel system.

Central Office Channel Interfaces (COCI) billed on a per interface basis:
OC-12
OC-3
DS3
STS-1
DS-1 (OC-3 Channel System required)

(8) OC-3, OC-12, and OC-48 Loops UNE services

Offered as a dedicated transmission path, point to point (end user's premise to end user's SWC collocation). *Note: There are three services.*

FIGURE 13



Pricing Structure:

Loop - OC3

OC3 per mile per month
OC3 Facility Termination per month
NRC - OC3 - Facility Termination - 1st
NRC - OC3 - Facility Termination - Add'l
NRC - OC3 - Facility Termination - Disconnect - 1st
NRC - OC3 - Facility Termination - Disconnect - Add'l
NRC - OC3 - Incremental Charge--Manual Svc Order - 1st
NRC - OC3 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-1st
NRC - OC3 -Incremental Cost - Manual Svc. Order vs. Elect-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

OR

Loop - OC12

OC12 per mile per month
OC12 Facility Termination per month
NRC - OC12 - Facility Termination - 1st
NRC - OC12 - Facility Termination - Add'l
NRC - OC12 - Facility Termination - Disconnect - 1st
NRC - OC12 - Facility Termination - Disconnect - Add'l
NRC - OC12 - Incremental Charge--Manual Svc Order - 1st
NRC - OC12 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-1st
NRC - OC12 - Incremental Cost-Manual Svc. Order vs. Elect-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:

See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

OR
Loop - OC48

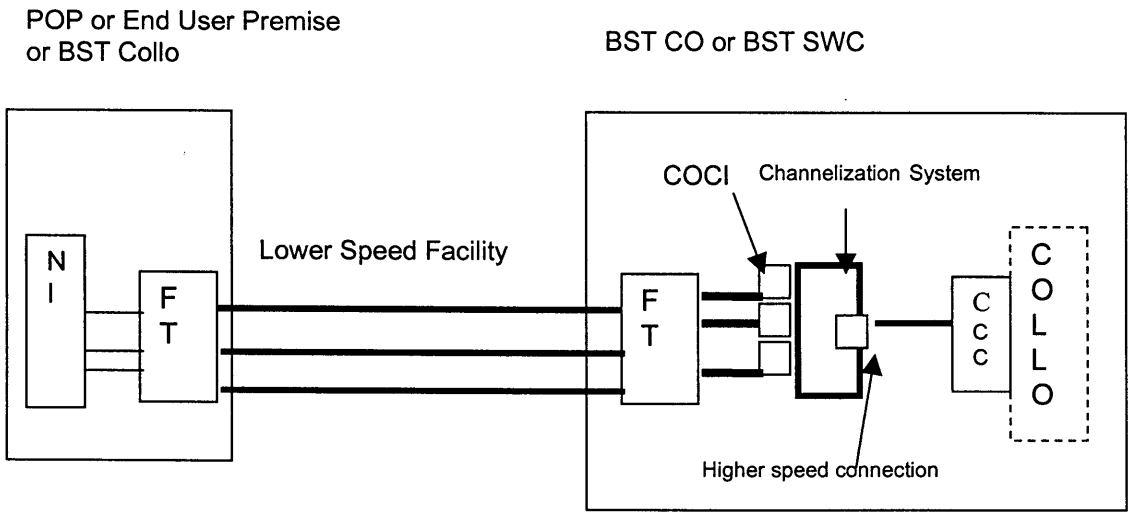
OC48 per mile per month
OC48 Facility Termination per month
OC48 - Interface OC12 on OC48
NRC - OC48 - Facility Termination - 1st
NRC - OC48 - Facility Termination -Add'l
NRC - OC48 - Facility Termination - Disconnect - 1st
NRC - OC48 - Facility Termination - Disconnect - Add'l
NRC - OC48- Interface OC12 on OC48 - Disconnect - 1st
NRC - OC48 - Interface OC12 on OC48 - Disconnect - Add'l
NRC - OC48 - Interface OC12 on OC48 - 1st per month
NRC -OC48 - Interface OC12 on OC48 -Add'l
NRC - OC48 - Incremental Charge--Manual Svc Order - 1st
NRC - OC48 - Incremental Charge--Manual Svc Order - Add'l
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -1st
NRC - OC48 -Interface-Incremental Cost-Manual Svc. Order -Add'l
NRC - OC48 - Facility Termination-Manual Svc Order vs Electronic-Disconnect-1st
NRC - OC48 - Facility Termination-Manual Svc Order vs Electronic-Disconnect-Add'l
NRC - OC48 - Interface - Manual Svc Order vs Electronic-Disconnect-1st
NRC - OC48 - Interface - Manual Svc Order vs Electronic-Disconnect-Add'l

Customer Channel Interface (CCI) billed on a per interface basis:
See OC-3 Local Channel

Central Office Channel Interfaces (COCI) billed on a per interface basis:
See OC-3 Local Channel

(9) Channelization UNE Service

This UNE offers point-to-point channelization functionality. The high speed side of the channelization unit is connected to collocation. Low speed facilities can be ordered to the channelization unit from another collocation or a CLEC's POP or an end user's premise.



See UNE service (2) for details of channelization. Lower speed facilities are DS0 and/or DS1. The higher speed connection allows DS3, STS-1, or DS1 connections. These facilities can be Loops, Local Channel, or Interoffice Channel.

C. Forecast:

UNITS

YEARS					
SERVICES	2000	2001	2002	2003	2004
VG UIT-D	3559	3918	4207	4409	4560
DS1 UIT-D	207	269	310	339	357
DS3 UIT-D	3	4	6	7	8
OC3 UIT-D	1	2	3	4	5
OC12 UIT-D	0	1	2	3	3
OC48 UIT-D	0	1	2	3	4
DS1 Ch.	186	203	219	229	237
DS3 Ch.	2	2	3	4	4

D. Billing:

Billing will be accomplished through CABS.

1. SIG will not apply.
2. SAW will not apply
3. Billing Guarantee will not apply.
4. STATE MISSED APPOINTMENT CREDITS will apply (TELRIC).
5. EXPEDITE CHARGES for shorter intervals will apply (TELRIC).
6. CANCELLATION CHARGES will apply (TELRIC).
7. SERVICE ORDER MODIFICATION charges will apply (TELRIC).
8. CREDIT OUTAGES will apply (TELRIC).

The rate elements are contained within previous section B.

Shared Use – While UNEs are provisioned for the purpose of providing exchange and exchange access services, it is possible that the CLEC will interconnect tariffed services to the Dedicated Transport UNE. Tariffed rates will apply to the facility over which tariffed services are transmitted. Self reported Percent Interstate Usage (PIU) /Percent Local Facility (PLF)/Percent Local Usage will be used along with CABS Work Request 98040309 PLU on Trunks and Facilities in order to apportion and bill for the appropriate contract/tariff rates. This Work Request was developed by the Local Interconnection Project Team and has been requested for a CABS release of in 2000.

Credit Terms/Payment Plans - There are also no volume or term options for this service; consequently, only month to month rates will be offered.

E. Deployment Schedule:

Ubiquitous deployment assuming current C.O. and loop capabilities
Additional transport capacities will be developed based on the bona fide Request process. Special construction may apply as appropriate. Since the Company has been ordered to provide these services, it is important that they be implemented as soon as possible.

F. Distribution Channels:

Use Interconnection Services Sales Channels - 12 headcount shared among all UNEs.
Product Management will compile an Account Team Information Package from the Interdepartmental Service Description.

G. Product Codes, etc.:

Unique sales codes for IPC/LCSC
Establish new product codes for services.
Unique identifiers will be assigned to all recurring rate elements.

H. Product Tracking Needs:

Unit Counter – TBD. Need unique counters for the each recurring rate element, e.g. a unit counter for facility terminations as well as mileage.
Revenue and Expenses - ABIS
Accounted for by: Region/State/GEO/Wire Center/Customer (by ACNA)

I. Tariff/Contract/Agreement:

Short Term: Standard Contract Agreement

- Since regulatory agencies have mandated these services, contract administration has included these services within the standard Interconnection Agreement.
- Need one headcount for contract administration spread over UNEs.
- The existing standard Interconnection Agreement specifies that any state without a price for Dedicated Transport will be provisioned out of the state tariff until BST offers the service.
- An interim procedure to bill contract rates is in place for DS0-DS3 Interoffice facilities. This does not include Local Channel or Channelization.

Long Term - 2001 forward: Tariff

- Pricing/Tariff Development Headcount per UNE (to be determined)

J. Advertising and Promotion:

Development of common "fact sheet" type brochure $50k per year through 2000 for all UNEs
Internet WEB page -- $100k per year through 2000 for all UNEs

K. Customer Training:

- one person-year plus $20k materials per year through 2000
- Document-based training (not face to face)
- How common facility growth is triggered
- Tech requirements/interface specifications
- Maintenance/repair
- General product overview - all UNEs
- Assume: man-hour loading - travel, PC equipped (misc.: office space, supplies)
- Product Management will compile CLEC Information Package from the Interdepartmental Service Description.

L. Staff Support Requirements:

The following requirements are for all Transport Product and Project Management UNEs

	PG	1999	2000
Product Manages	59 58	2 3	2 3
Project Mgrs.	59	5	5
Project Team	59 58	6 6	6 6

Headcount Requirements for Transport UNEs

II. NETWORK ARCHITECTURE

A. Physical Network Configuration

1. Switching Requirements

None

2. Signaling

None

3. Recording (AMA, etc.)

None

4. Transport

Unbundled Dedicated Transport is a point-to-point service that has three possible components:

1) Interoffice Channel
2) Local Channel
3) Channelization

Interoffice Channel provides a transmission path, and its associated electronics, between BellSouth end offices. It allows a CLEC to transport 2-wire Voice Grade, DS0s (Voice or Data), DS1s, DS3s, ISDN, OC3, OC12, OC48, and STS-1, from one location to another. These facilities are dedicated to a single network provider. These facilities may be configured in various transmission configurations and will provide the same transport capacities that exist in Section 6 of the FCC tariff (i.e., DS0, DS1 and DS3).

Typical configurations of Network Elements used for Interoffice are shown below.

Interoffice Network Architecture Drawings

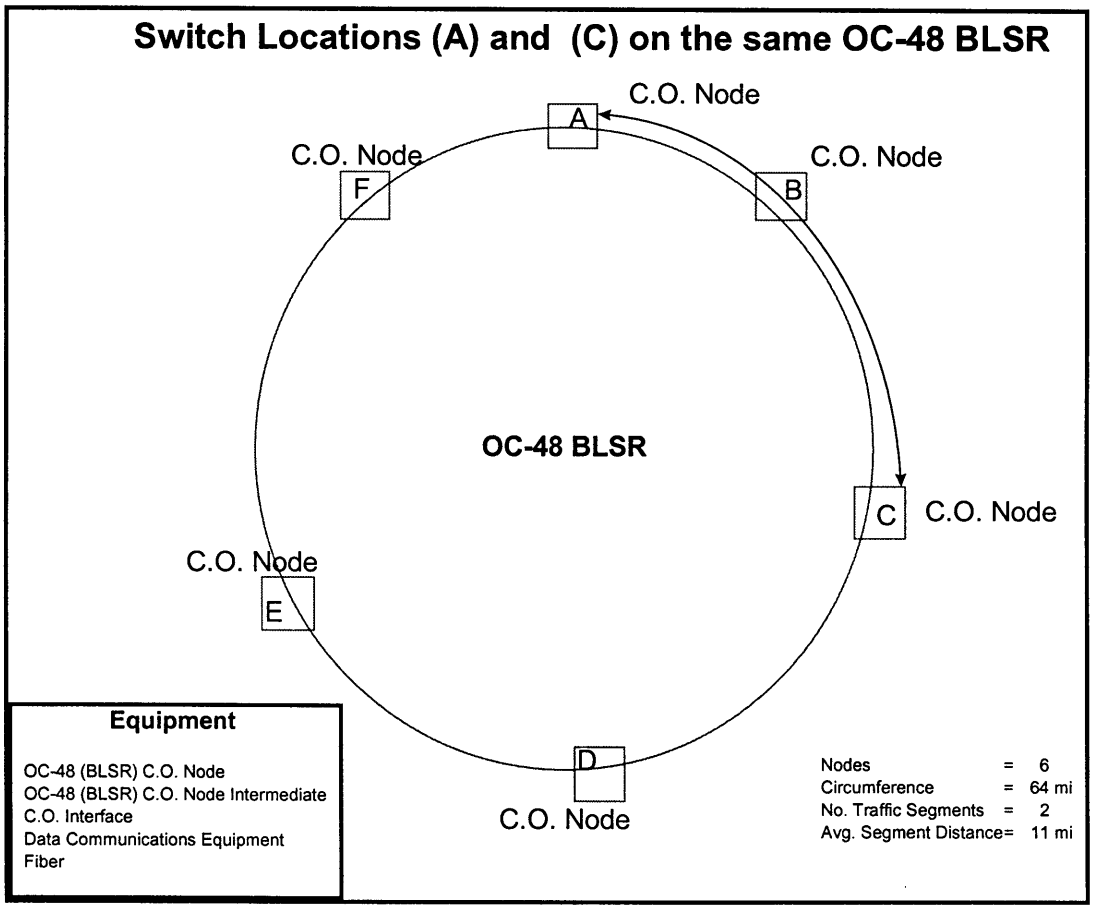


Figure 0-1. Switch Locations on the same OC-48 BLSR

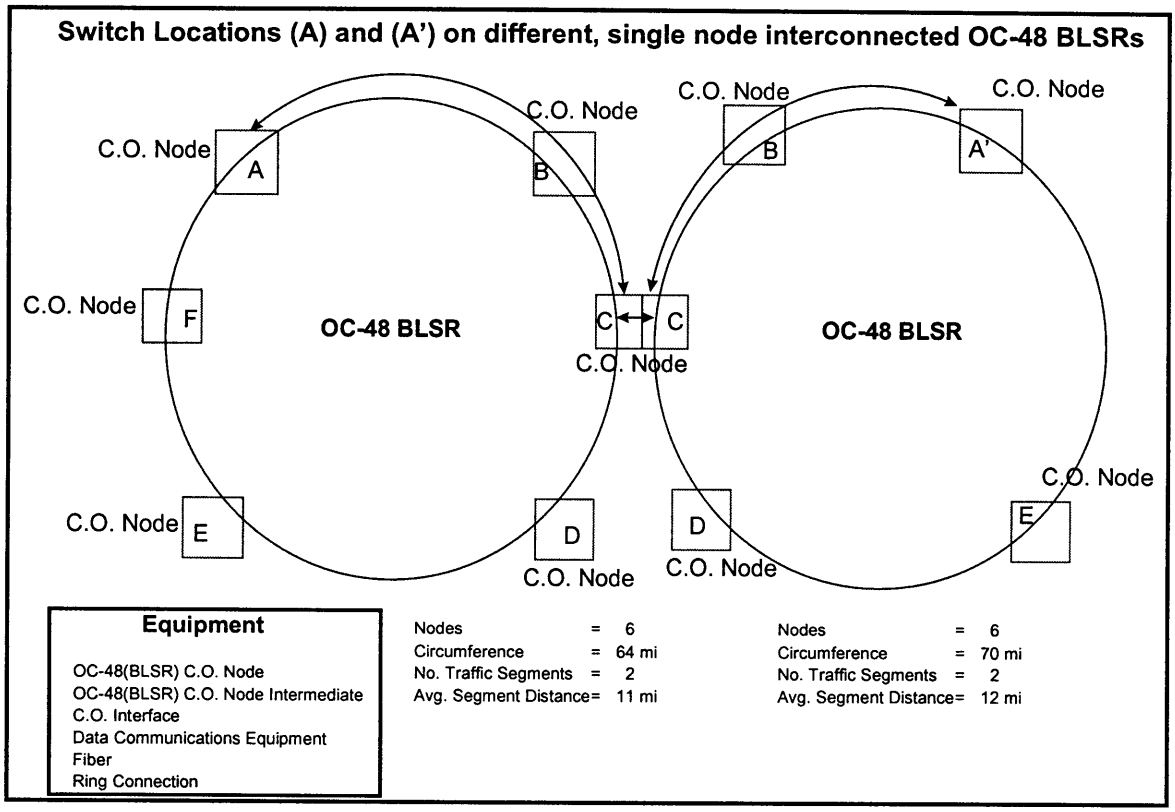


Figure 0-2. Switch Locations on different, single node interconnected OC-48 BLSRs

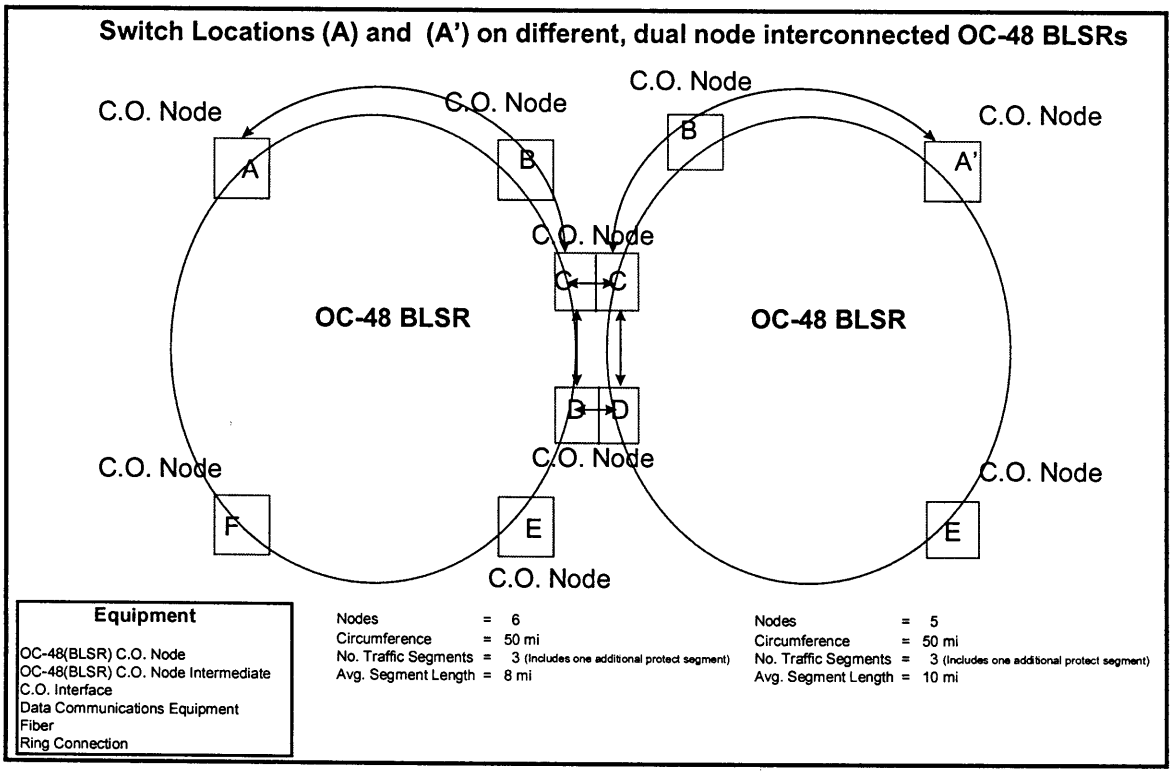


Figure 0-3. Switch Locations on different, dual node interconnected OC-48 BLSRs

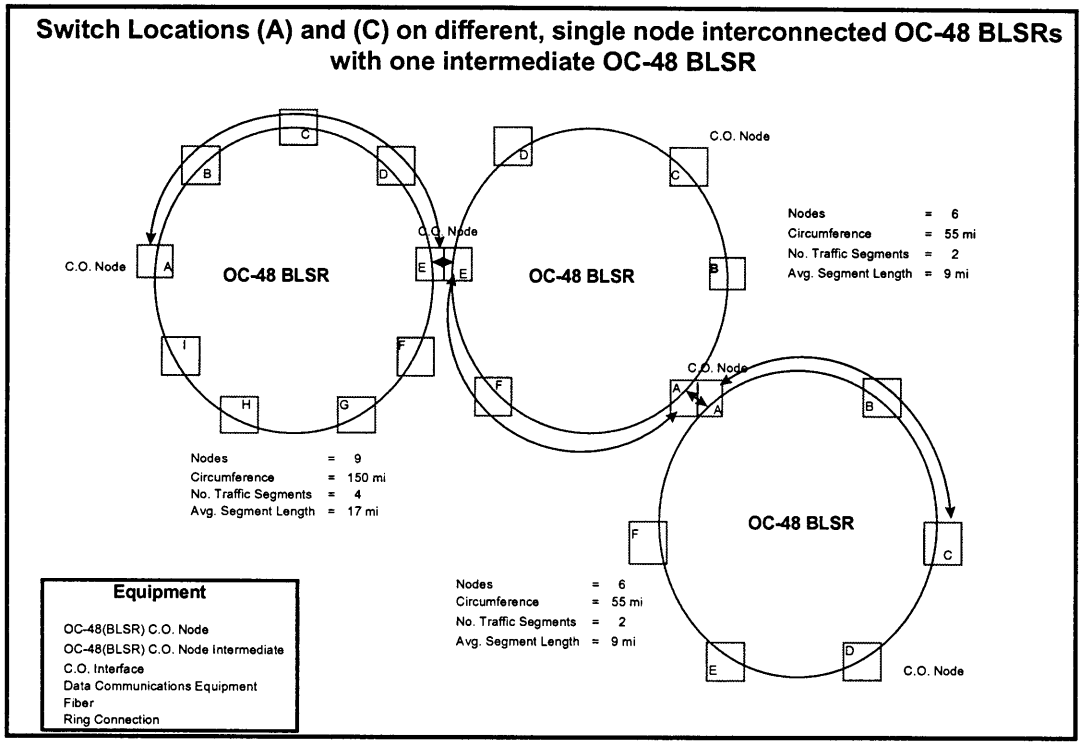


Figure 0-4. Switch Locations on different, single node interconnected OC-48 BLSRs with one intermediate OC-48 BLSR

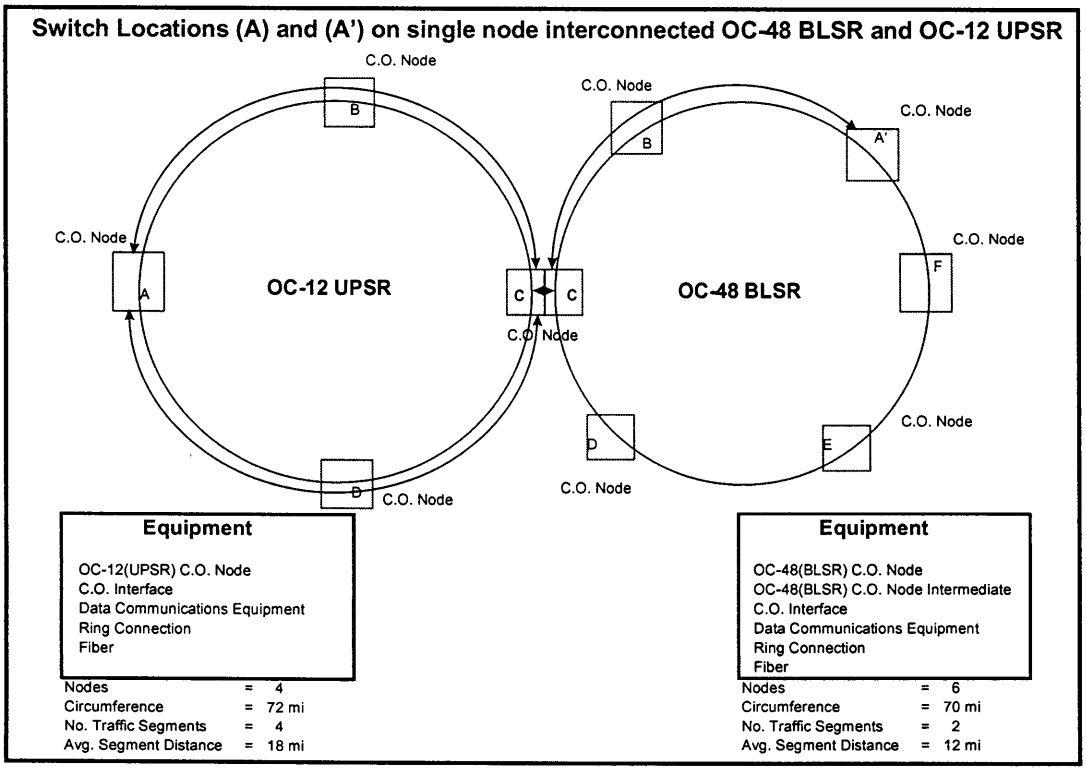


Figure 0-5. Switch Locations on single node interconnected OC-48 BLSR and OC-12 UPSR

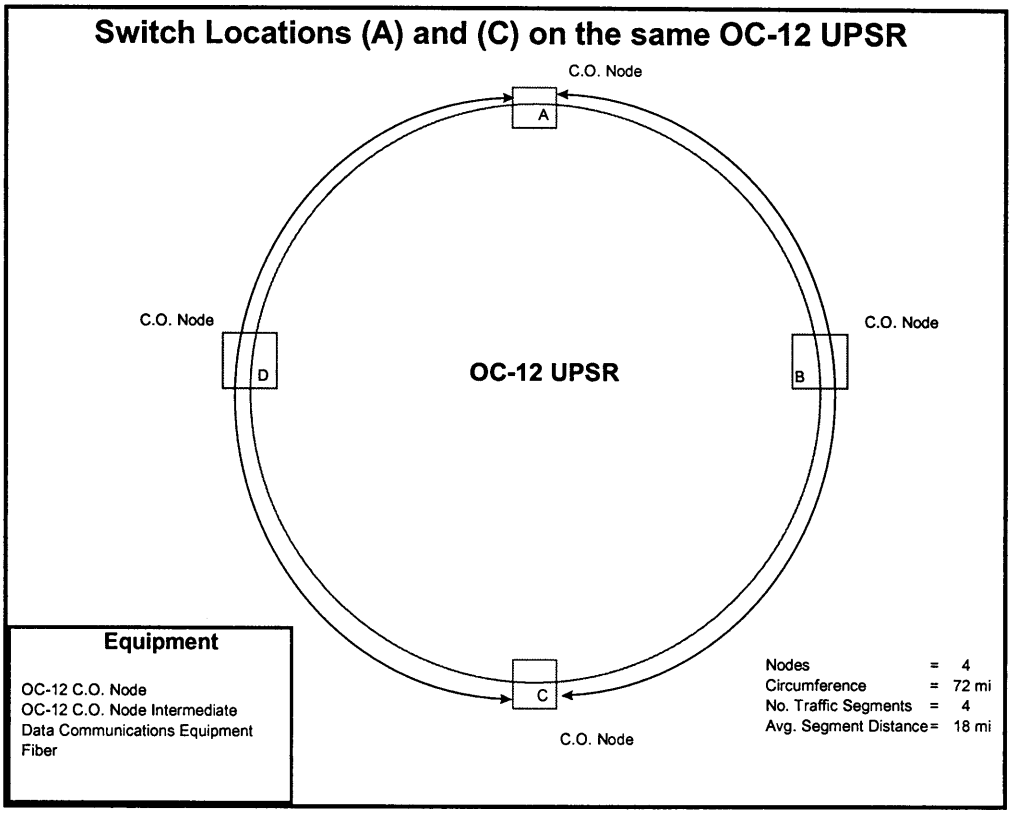


Figure 0-6. Switch Locations on the same OC-12 UPSR

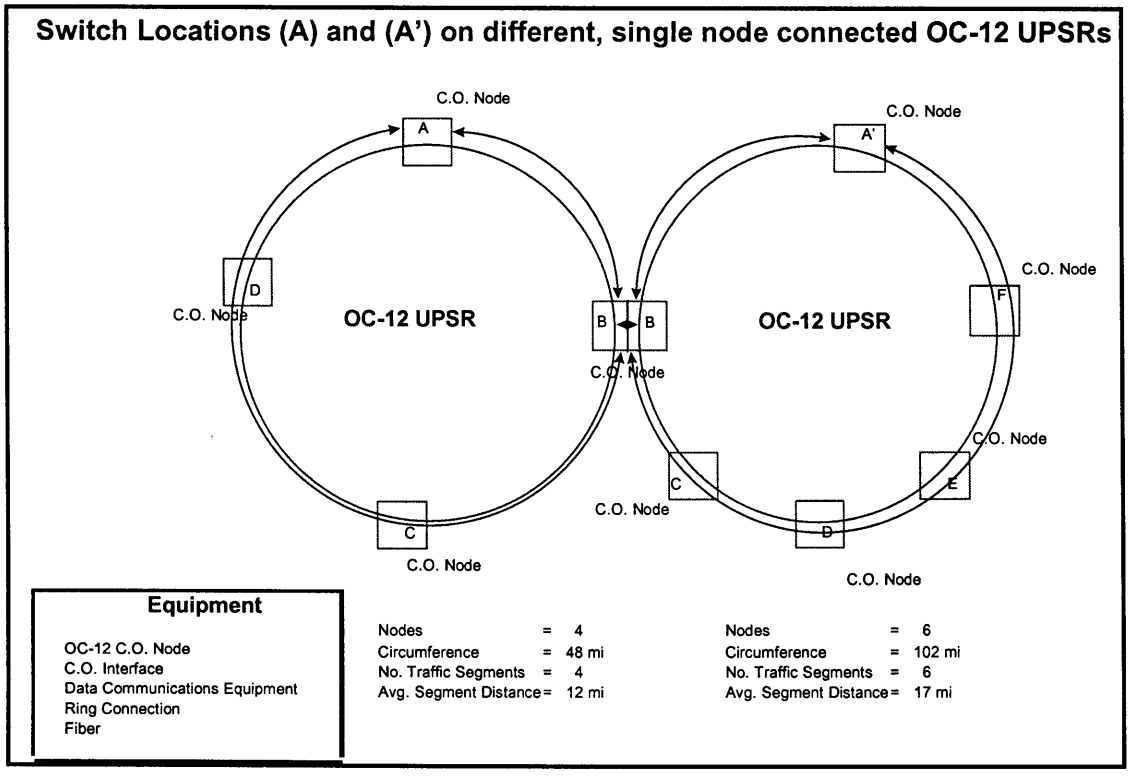


Figure 0-7. Switch Locations on different, single node interconnected OC-12 UPSRs

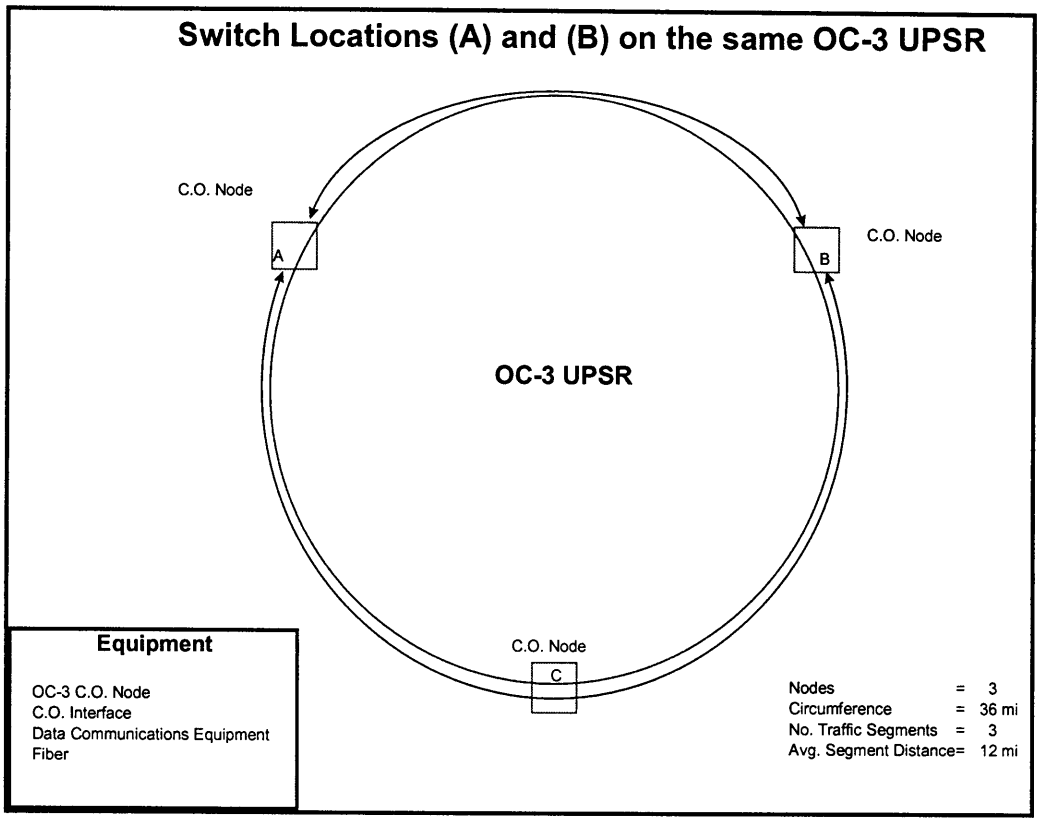


Figure 0-8. Switch Locations on the same OC-3 UPSR

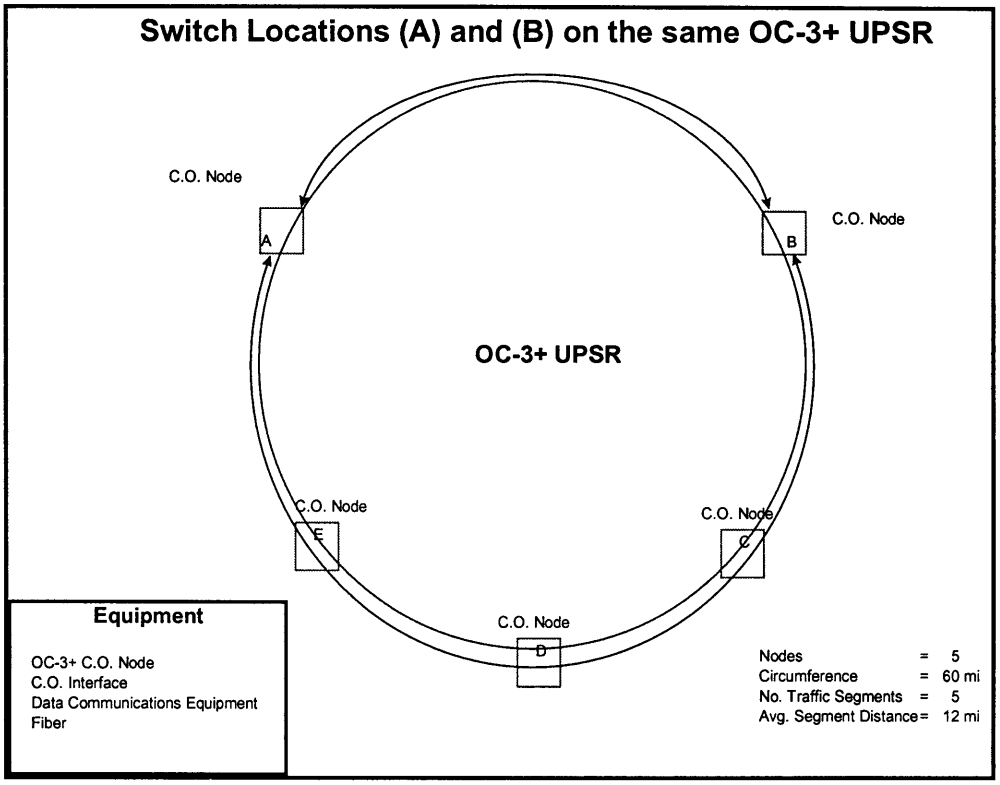


Figure 0-9. Switch Locations on the same OC-3+ UPSR

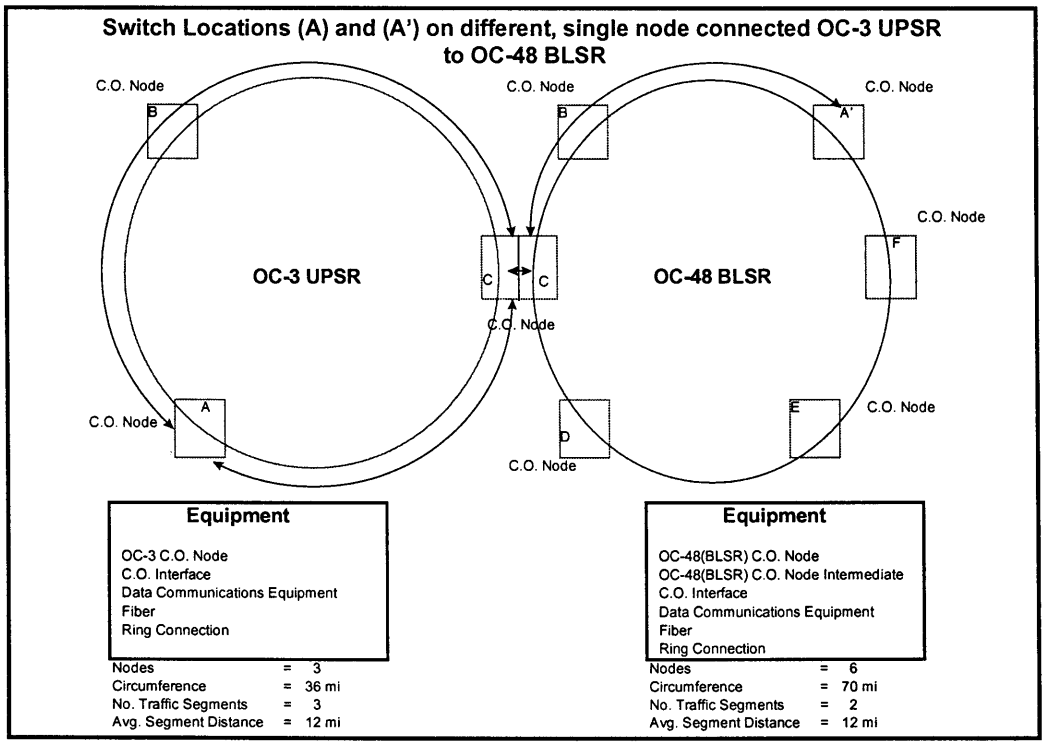


Figure 0-10. Switch Locations on single node interconnected OC-48 BLSR and OC-3 UPSR

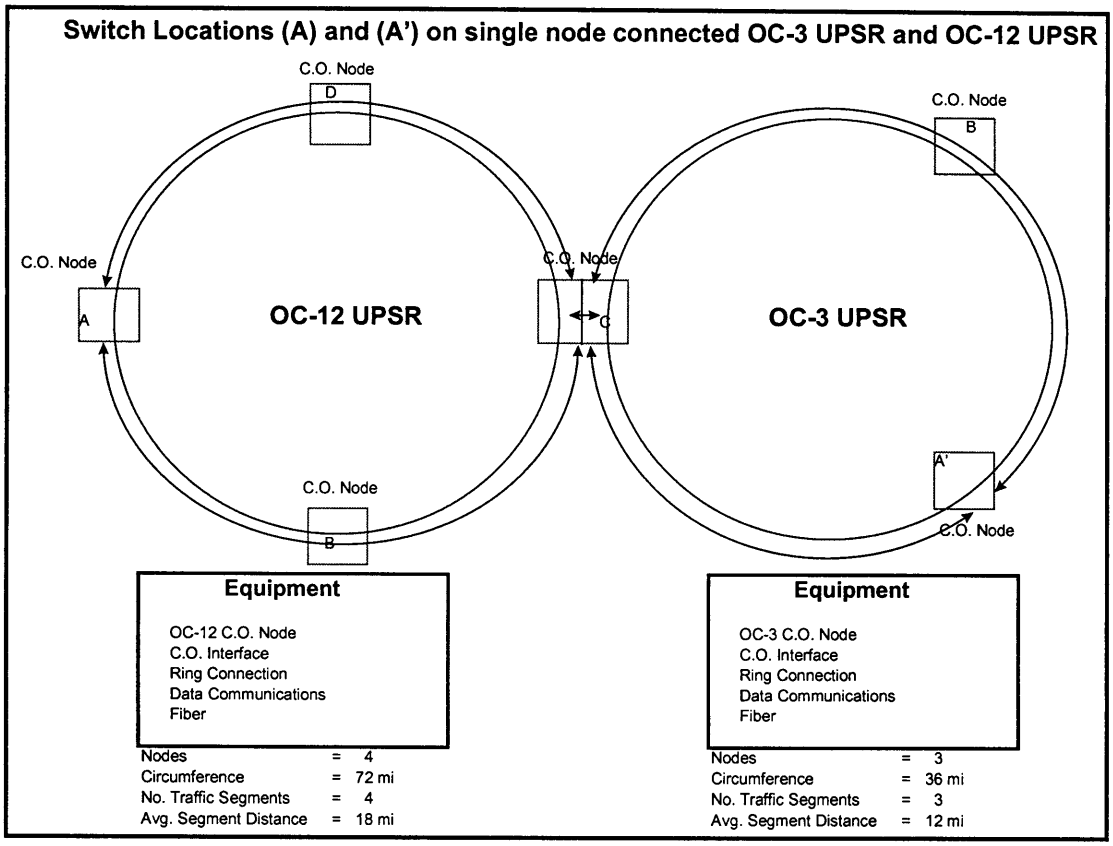


Figure 0-11. Switch Locations on single node interconnected OC-12 and OC-3 UPSRs

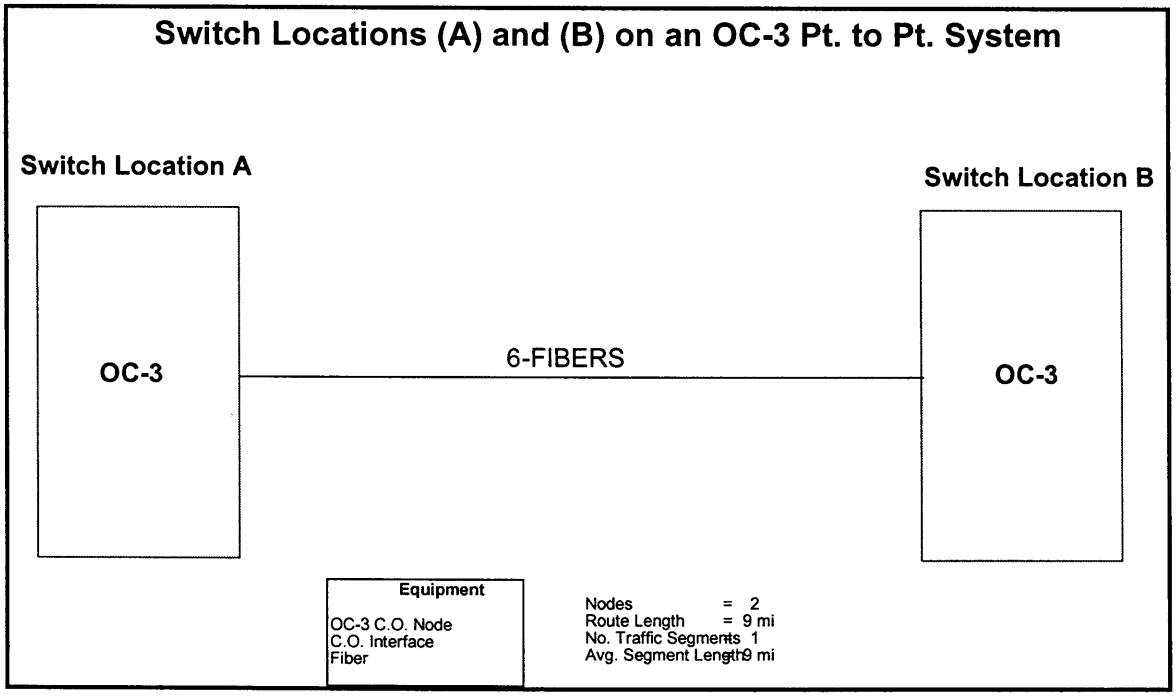


Figure 0-12. Switch Locations on and OC-3 Pt.-to-Pt. System

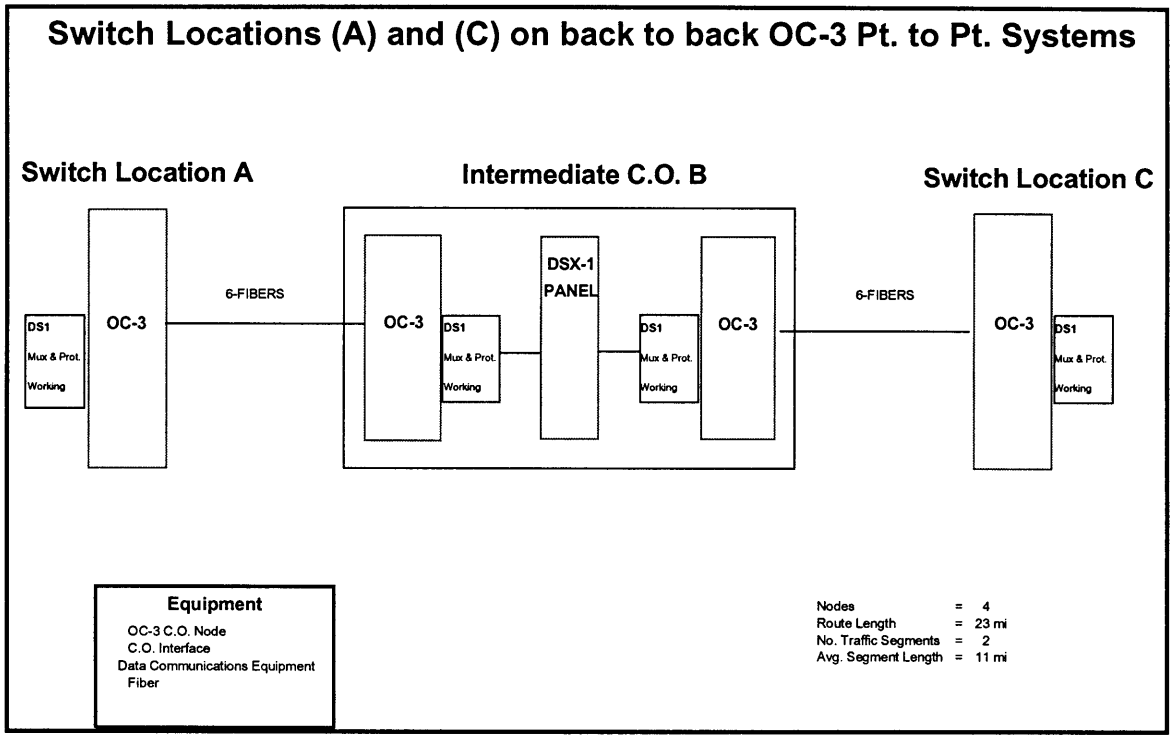


Figure 0-13. Switch Locations on back to back OC-3 Pt.-to-Pt. Systems

Local Channel is dedicated transport at the following bandwidths: 2-wire voice grade, 4-wire voice grade, DS1, DS3, ISDN, STS-1, OC3, OC12 and OC48. Local Channel provides a dedicated point to point transmission path and the associated electronics between BST's serving wire center (DSX3 or LGX frame) and the CLEC's POP. In the BST SWC this service must be extended to a collocation arrangement. Current policies concerning recombination will be adhered to.

Table 4-1 provides a listing of Unbundled Local Channel Levels and identifies Network Facility Architectures and Interface Options at the SWC and CLEC locations.

Unbundled Local Channel OC-3 and OC-12 Levels provide drop side interfaces off a BST provided SONET multiplexer at the CLEC POP location with OC-3 and OC-12 interfaces in the SWC as shown in Figure 1. These service arrangements are similar to the current LightGate® OC-3 Customer Channel & Central Office Interfaces and the LightGate OC-12 Customer Channel & Central Office Interfaces that are under development. At this time Unbundled Local Channel OC-3 and OC-12 Levels will only support a 2 fiber interface – LightGate supports 2 and 4 fiber interfaces.

Unbundled Local Channel OC-48 Level allows the CLEC an opportunity to provide the SONET Add/Drop Multiplexer at their POP location. At the CLEC POP, this service arrangement is similar to the current LightGate OC-48 LightGate Local Channel System with Optical Customer Termination (OCUT). In the Serving Wire Center an OC-12 drop side interface is provided. At the SWC, this service arrangement is similar to the LightGate

OC-12 Central Office Channel Interface that is under development. The LightGate OCUT is a 4 fiber interface that allows the customer the opportunity of providing the SONET equipment at their premises. Customer provided equipment must be compatible with BST approved equipment used in the SWC. The line side of the SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used and BST reserves the right to determine the equipment it employs for service.

Table 4-1. – Unbundled Local Channel Levels, Architectures and Interface Options

ULC Level	Network Facility Architecture	Location	Interface[1] Options	Physical Interface
OC-48	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	4 Fiber OC-48 OCUT[2]	Duplexable SC Connector
OC-12	OC-48	BST SWC	2 Fiber OC-12 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-12 Drop	Duplexable SC Connector
OC-3	OC-48, OC-12	BST SWC	2 Fiber OC-3 Drop	Duplexable SC Connector
		CLEC POP	2 Fiber OC-3 Drop	Duplexable SC Connector
STS-1	OC-48, OC-12, OC-3	CLEC POP	2 Conductor	2 - BNC[3] Connectors

4.1 Floor Space and Entrance Facilities

[1] For 2 fiber interfaces, a working fiber pair (2 individual fibers - one fiber for each direction of transmission) is provided at the NI. For 4-fiber interfaces, 2 fiber pairs (4 individual fibers - 2 working and 2 protection) are provided at the NI.

[2] For OC-48 span level interconnections, the CLEC's Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line side of the SONET system will be arranged as a two-node ring, utilizing ring software and theData Communications Channel (DCC) not will be active across the interface.

[3] The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 – TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

Where BST provides termination equipment at the CLEC POP location, the CLEC must provide suitable floor space, including an environment controlled for humidity and temperature, and a source of non-switched AC power to support ULC service.

4.2 ULC Level Capacity Limits

Unbundled Local Channel (ULC) Level are capable of transporting DS1, DS3, STS-1, OC-3 and OC-12 channels. The capacity of ULC is depicted in Table 4-2.

Table 4-2. ULC Level Capacity Limits

Unbundled Local Channel Level	DS1	DS3	STS-1	OC-3	OC-12	OC-48
OC-48	1344	48	48	16	4	-
OC-12	336	12	12	4	-	-
OC-3	84	3	3	-	-	-
STS-1	28	1	-	-	-	-
DS3	28	-	-	-	-	-

4.3 Technical Specifications

Existing BellSouth Technical References contain technical specifications that are in part applicable to Unbundled Local Channel OC-3, OC-12, OC-48, STS-1 and DS3 interfaces. LightGate is the most similar service; its interface and performance specifications are contained in TR 73501, *LightGate® Service Interface and Performance Specifications.*

The service terminology in TR 73501 has been tailored to the LightGate service offering. Some of the specific interfaces and features are not applicable to Unbundled Local Channel Levels. In addition, the LightGate OC-12 Customer & Central Office Channel Interfaces under development are not included in the TR at this time.

4.4 SONET Network Interface Requirements

This section defines the Synchronous Optical Network (SONET) OC-3, OC-12 & OC-48 Optical Network Interface (NI) requirements. It denotes existing documentation that details signal specifications and provides BST variations and clarifications. The SONET interface is delineated in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems:Common Criteria Physical Layer*
ANSI T1.105-1995	*Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates, and Formats*

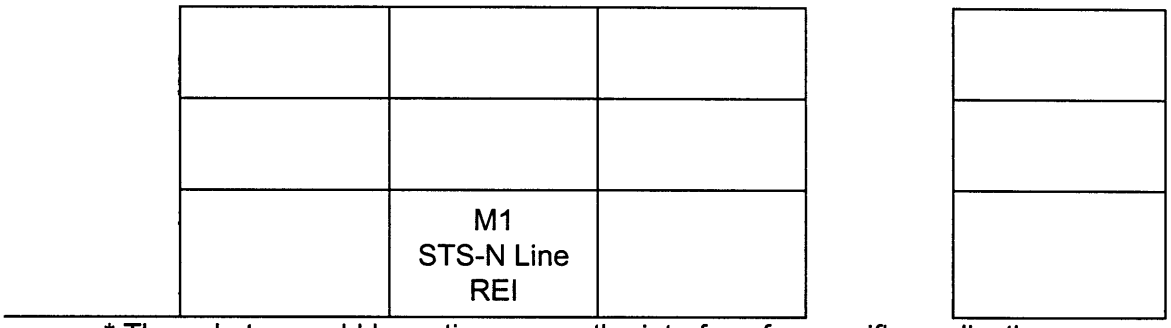
It is recommended that BST and the CLEC jointly engineer SONET optical interfaces. For ULC OC-48 Level span level interconnections the CLEC's SONET Transmission system is required to be compatible with BST's currently approved for new deployment hardware and software. The line side of the OC-48 Level SONET system will be arranged as a two-node ring, utilizing ring software. The same vendor's equipment and software version must be used, and the Data Communications Channel (DCC) must be turned off. BST reserves the right to determine the equipment it employs for service.

4.5 Overhead Bytes Active Across NI

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-3. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

Table 4-3. Overhead Bytes Active Across NI

Overhead	**Transport Overhead**			**Path**
Section Overhead	Framing A1	Framing A2	Section Trace J0	PathTrace J1
	Section BIP-8 B1			Path BIP-8 B3
				Signal Label C2
Line Overhead	Pointer H1	Pointer H2	Pointer Action H3	Path Status G1
	Line BIP-8 B2	APS K1	APS K2	
				Indicator H4*



* These bytes could be active across the interface for specific applications.

4.6 Automatic Protection Switching

Automatic Protection Switching (APS) is controlled by the K1 and K2 bytes. For OC-48 ULC Level Service with a 4 fiber interface, unidirectional 1+1 non-revertive APS will be provided across the NI. Use of the K1 and K2 bytes is specified in GR-253-CORE and ANSI T1.105.01-1994, *Synchronous Optical Network (SONET) - Automatic Protection Switching.*

4.7 Payload Compatibility

For payloads terminated within the BST network, payload compatibility must be assured. Payload mappings for Synchronous Payload Envelopes (SPEs) terminated in the BST network are defined in ANSI T1.105.02, *Synchronous Optical Network (SONET) - Payload Mappings* and currently limited to the following:

- Asynchronous mapping for DS1 signals into floating VT1.5 SPE.
- Asynchronous mapping for DS3 signals with DS3 framing structure into STS-1 SPE.
- STS-1 signals mapping into STS-3 SPE or STS-12 SPE.

The OC-3, OC-12 and OC-48 ULC interfaces support transport of properly mapped STS-1, STS-3, STS-3c (concatenated) and STS-12 signals. Payloads that are transported but not terminated in the BST network must be contained in one of the supported frame structures. In addition to these standard mappings, proprietary mappings (provided they comply with standard frame, format and overhead structure) may also be acceptable for transport.

Sub STS-1 Level Multiplexing

SONET VT1.5 or Asynchronous M13 multiplexing can be supported with OC-3, OC-12 or OC-48 ULC interconnection interfaces.

DS1 payloads can be directly mapped into the VT1.5 SPE using the asynchronous mapping for a DS1. DS1 payloads contained within a DS3 must be mapped using the asynchronous M13 multiplex format (combination of M12 and M23 formats) for terminal equipment that multiplexes 28 DS1s into a DS3, as defined in ANSI T1.107-1995, *Digital Hierarchy Formats Specifications.*
The DS3 signal must be framed utilizing the framing structure in ANSI T1.107 and must use the asynchronous mapping for a DS3 into an STS-1 SPE.

4.8 Fiber Transmission Media

The optical interface shall use single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. The conventional dispersion-unshifted single-mode fiber (also known as EIA/TIA Class IVa fiber) shall meet the requirements detailed in Bellcore GR-20-CORE, *Generic Requirements for Optical Fiber and Optical Fiber Cables*, and ITU Recommendation G.652, *Characteristics of a Single-Mode Optical Fiber Cable.*

The 2 fiber interface provides a working fiber pair that uses one fiber for each direction of transmission. The 4 fiber interface provides a working and protection fiber pair (4 individual fibers - 2 working and 2 protection) as shown in Figure 2.

Typical Fiber Performance Characteristics

Table 4-4 provides typical characteristics of optical fiber and components commonly utilized in BST's network:

Table 4-4. Typical Technical Characteristics of BST Optical Fiber and Components

Wavelength (λ)	1310 nm	1550 nm
Typical Fiber Loss	0.5 dB/km	0.35 dB/km
Discrete Reflectance (Splices, Connectors)	-40.0 dB	-40.0 dB
Medium Zero Dispersion Wavelength	1310 ± 3 nm	Not Applicable
Chromatic Dispersion (Fiber Cable)	3.5 ps/nm-km	18.0 ps/nm-km
Chromatic Dispersion Slope (Fiber Cable)	0.093 ps/(nm-km^2)	0.093 ps/(nm-km^2)

The transmission characteristics of a specific ULC application may differ from the above typical performance characteristics.

4.9 Optical Mechanical Interface

At the NI, BST will provide duplexable SC type (EIA/TIA SCFOC/2.5) plug and jack type connectors which will be used to support transmission over single-mode fiber with a nominal zero dispersion wavelength at 1310 nanometers. BST will install the connector jack to serve as the NI. BST and the CLEC must each provide connector plugs to terminate their fibers at the NI. Each connector plug will contain 2 fibers, one for each direction of transmission. The connector jack will be the demarcation point between BST and the CLEC installation.

Alternatively, the CLEC may want to provide interconnection components at their location to serve as the NI. BST and the CLEC must agree upon a mutually acceptable test point at the CLEC's location that will serve as the NI. The CLEC provided NI should be functionally consistent with BST provided NIs and BST technicians must be allowed to access and test from the NI. The use of components such as the Value-Added Connector Module System (VAM System) from ADC Telecommunications can add flexibility and a monitoring capability. The CLEC would provide and install the NI - which would consist of a VAM chassis and monitor module (90/10 splitter). BST would provide a fiber jumper from its terminal equipment to the VAM module. This jumper could accommodate different connectors on each end. In a specific application it is proposed to use a SC type connector at the BST terminal equipment and a FCPC type connector at the CLEC provided VAM module.

4.10 Physical Media Characteristics

The interface shall meet the physical media characteristics defined in GR-253-CORE for Short Reach (SR), Intermediate Reach-1 (IR-1) or Long Reach (LR) applications. Transmitter, optical path and receiver parameters for OC-3, OC-12 and OC-48 are the same as shown in TR 73501 Tables 8-1 through 8-3.

4.11 System Budget – Joint Engineering

The establishment of optical interfaces will require joint engineering between BST and the CLEC using commonly accepted engineering practices. The design approach should be based on ANSI/EIA/TIA-559, *Single-Mode Fiber Optic System Transmission Design*, or GR-253-CORE procedures. BST's design procedures are contained in 855-355-100BT, *Single-Mode Fiber Optic Transmission System Design Procedures.*

For the purpose of optical parameter specifications, optical interfaces are referred to an optical system reference diagram as shown in Figure 3. Point S is a reference point on

the optical fiber just after the transmitter (Tx) optical connector (C_{Tx}). Point R is a reference point on the optical fiber just before the receiver (Rx) optical connector (C_{Rx}). Points S and R provide a convenient separation of the optical link into a transmitter subsection, a receiver subsection, and an optical path subsection. Optical parameters are specified for the transmitter at point S, for the receiver at point R, and for the optical path between Points S and R. All parameter values specified are worst-case values and are to be met over the ranges of standard operating conditions (i.e., temperature and humidity ranges); they include aging effects. The parameters are specified relative to an optical section design objective of a bit error ratio (BER) better than $1x10^{-10}$.

To ensure proper system performance it is necessary to specify attenuation and dispersion characteristics of the optical path. Attenuation shall be in the range of 0-7 dB for SR applications, 0-12 dB for IR applications, and 10-24/28 dB for LR applications. This specification is assumed to represent worst-case values including losses due to splices, connectors, optical attenuators (if used), or other passive optical devices, and any additional cable margin to cover allowances for the following:

1) future modifications to the cable configuration (additional splices, increased cable lengths, etc.),
2) fiber cable performance variations due to environmental factors, and
3) degradation of any connector, optical attenuator (if used), or other passive optical device when provided.

For design purposes, BST will provide the CLEC the following information:

- Length of the fiber cable including 3% extra for possible cable reroutes.
- Loss budget value in decibels/kilometer (dB/km) of fiber cable at λ = 1310 nm or λ = 1550 nm.
- Number of splices constructed and anticipated number of maintenance splices.
- Loss budget value of each splice in dB/splice.
- Loss budget value of single-mode fiber jumper in dB/jumper.
- Loss budget value of jumpers and connectors at the Lightguide Terminal Interconnect Equipment (LTIE) in dB at customer premises.
- Loss budget values of jumpers and connectors in dB used to connect fibers in BST office(s).

Note: Loss Budget Values are end-of-life values that account for aging and are usually greater than actual measured values.

4.12 STS-1 Network Interface Requirements

This section defines the Synchronous Transport Signal level 1 (STS-1) Customer Channel Interface Network Interface (NI) requirements. It denotes existing documentation that details electrical and signal specifications and provides BST variations and clarifications. The physical layer of the STS-1 NI is defined in the following specifications.

GR-253-CORE	*Synchronous Optical Network (SONET) Transport Systems: Common Criteria Physical Layer*
ANSI T1.102-1993	*Digital Hierarchy – Electrical Interfaces*
ANSI T1.105-1995	*Digital Hierarchy - Optical Interface Rates and Formats Specifications (SONET)*

The function of overhead bytes active across the NI shall be consistent with the specifications contained in GR-253-CORE and ANSI T1.105. Transport and Path Overhead bytes active across the interface are summarized in Table 4-1. The Data Communications Channel (DCC) not will be active across the interface at this time. Therefore, receiving equipment must be capable of ignoring their content. Any future utilization of those Overhead bytes is expected to be consistent with SONET Industry Standards.

One coaxial cable is provided for each direction of transmission. Interconnection at the NI shall be by a SJA 44 connector. The SJA 44 was originally defined as a 75 ohm plug and jack coaxial connector meeting the requirements in MIL-C-39012 and MIL-STD-202 - TNC connector. Currently, the preferred method of interconnection is via two BNC connectors.

The referenced cable for interconnections at the NI is 75 ohm coaxial cable with tinned copper meeting the requirements specified in ANSI T1.102. The STS-1 electrical interface is provided for use at a customer premises or in a central office. This interface allows a maximum interconnection distance of 450 feet on each side of the STSX-1 cross connect, assuming 728A coaxial cable.

4.13 DS3 Network Interface Requirements

This section defines the DS3 Network Interface (NI) requirements. It denotes existing documentation, which details electrical and signal specifications and provides BST variations and clarifications. At the NI the electrical requirements for the BST and customer signal are the same. The physical layer of the DS3 NI is delineated in the following specifications.

ANSI T1.404-1994	*Network-to-Customer Installation - DS3 Metallic Interface Specification*
ANSI T1.404a-1996	*Network-to-Customer Installation - DS3 Metallic Interface Specification (supplement)*
GR-342-CORE	*High-Capacity Digital Special Access Service Transmission Parameter Limits and Interface Combinations*

ANSI T1.404 applies to End-User (EU) interfaces and GR-342 applies to Carrier interfaces. A sketch of the DS3 EU customer NI is shown in Figure 4. The signal delivered to the NI by BST is identified as the BST signal, and the signal delivered to the NI by the customer is identified as the CI signal.

4.14 Optical Power Limitations

CLEC provided lasers shall not exceed +17.0 dBm in output power at 1550 nm (Class IIIb laser). In addition, the CLEC shall tell BST which class of laser that they will be utilizing.

4.15 Safety Requirements

The CLEC fiber optic system and required optical test equipment shall be registered and certified with the Department of Health, Education and Welfare Bureau of Radiological Health as specified in 21 CFR 1040.10. This document specifies performance requirements, labeling requirements and informational requirements. Documentation demonstrating system certification shall be available to assist in the determination of fiber optic safety precautions required to install, operate and maintain the system.

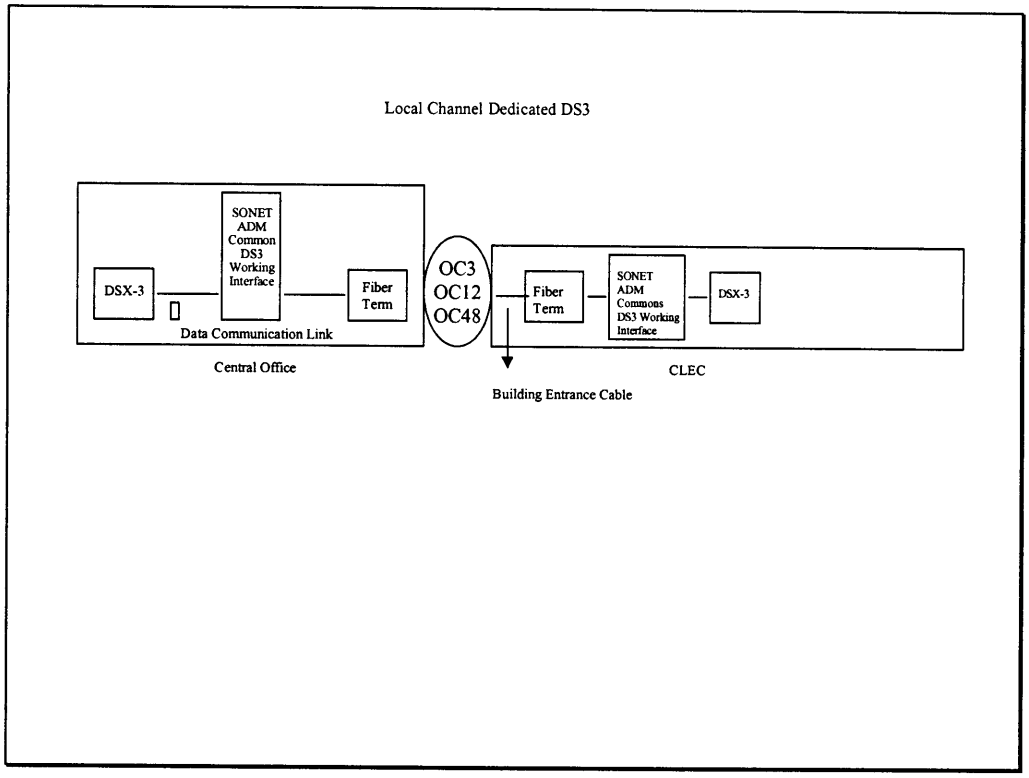


Figure 1

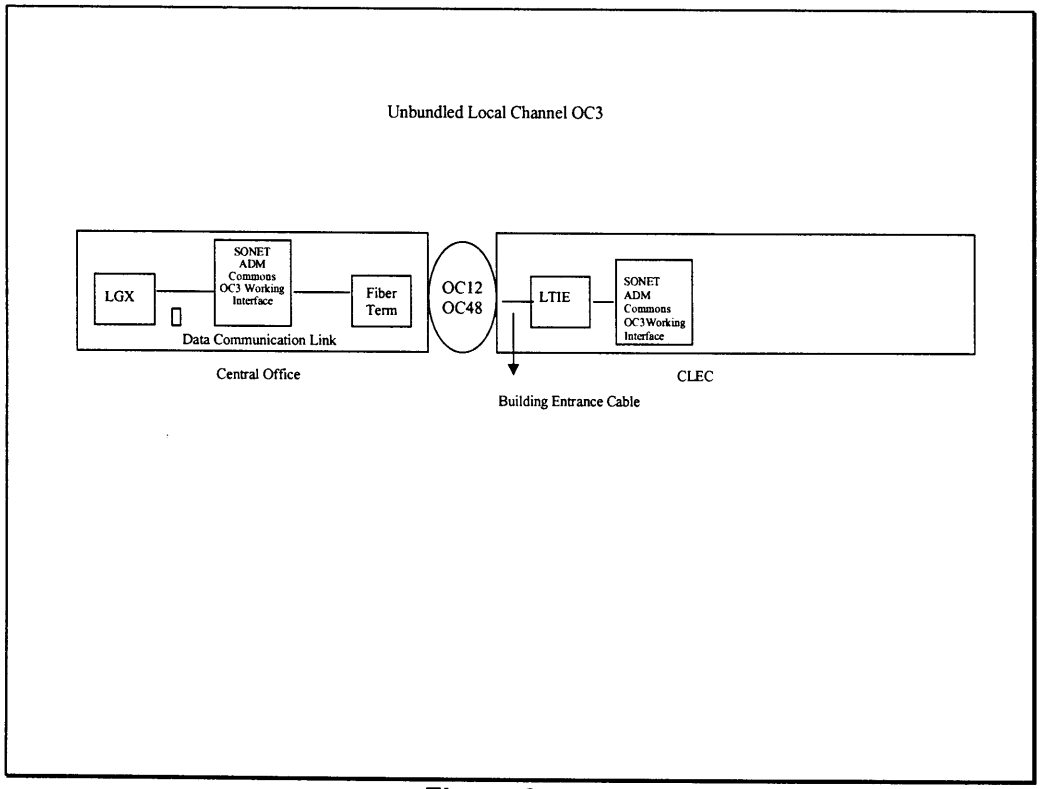


Figure 2

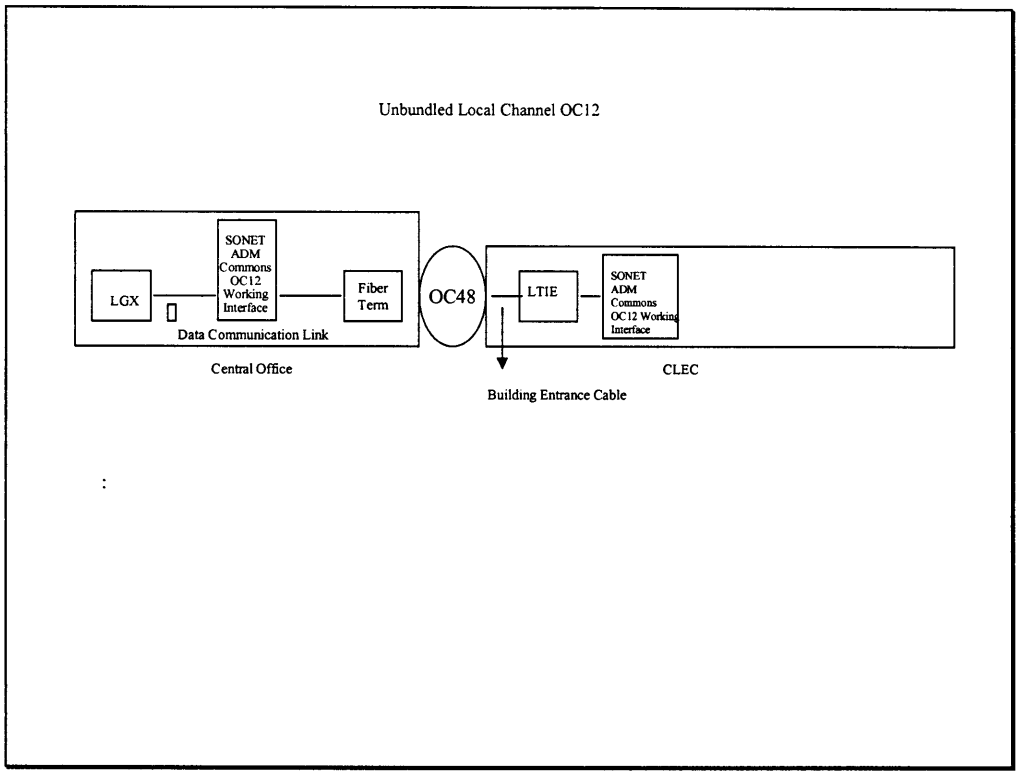
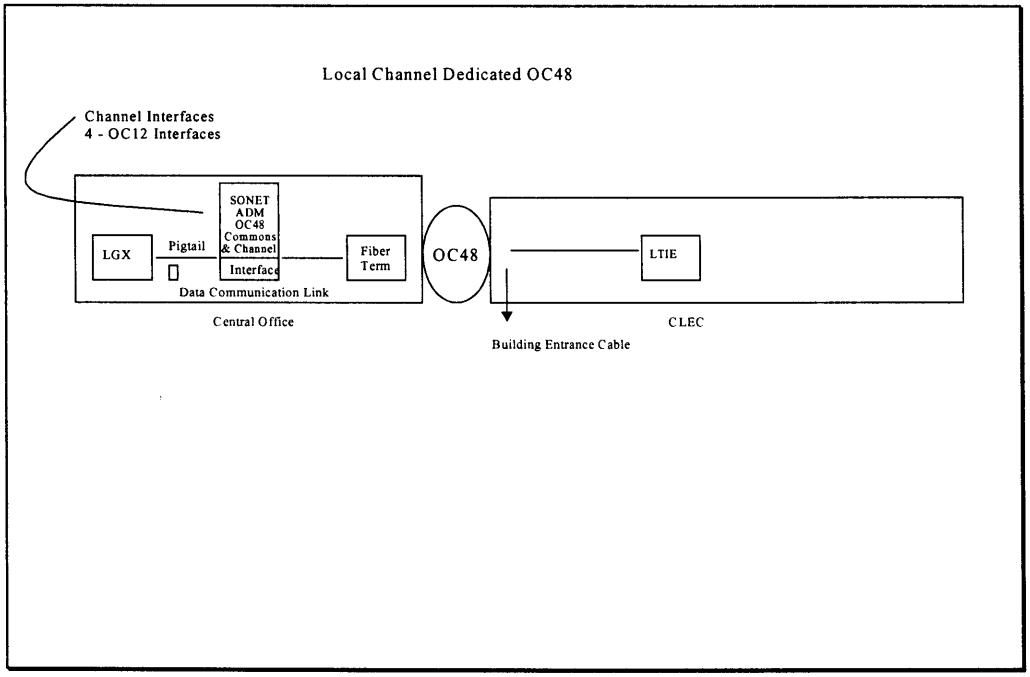

Unbundled Local Channel OC12
SONET ADM Commons OC12 Working Interface
LGX
Fiber Term
OC48
LTIE
SONET ADM Commons OC12 Working Interface
Data Communication Link
Central Office
CLEC
Building Entrance Cable

Figure 3


Local Channel Dedicated OC48
Channel Interfaces
4 - OC12 Interfaces
SONET ADM OC48 Commons & Channel Interface
LGX
Pigtail
Fiber Term
OC48
LTIE
Data Communication Link
Central Office
CLEC
Building Entrance Cable

Unbundled Channelization UNE can be at the DS1 and DS3 level. The UC-DS3 element provides for DS3 to DS1 Channelization and utilizes either a stand-alone 3/1 Multiplexer such as the Lucent Technologies DDM-1000 or a DS3 port on a Wideband Digital Cross-connect System (W-DCS) such as the Lucent Technologies DACS IV-2000, Tellabs TITAN 5500, or Alcatel 1631 as shown in Figure II-1. Costs for CI-DS1 elements will be a meld between the low speed DS1 interface cards on the stand-alone 3/1 Multiplexer and the DS1 ports on the W-DCSs.

It is Network's discretion as to which architecture is utilized to provide this UNE based on availability of spare equipment and plugs in each particular Central Office where it is ordered.

The DCS type quantities and percentages by state are shown in Table II-1 below:

Table 0-1. Digital Cross-connect System (DCS) Types by State

DCSs by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	5	65	17	7	37	15	13	22	17	198
DSC DEX CS1	9	40	0	0	0	2	1	7	0	59
TELLABS 532	4	40	18	6	0	0	28	1	1	98
Total 1/0 DCSs	**18**	**145**	**35**	**13**	**37**	**17**	**42**	**30**	**18**	**355**
W-DCSs										
ALCATEL 1631	4	2	5	0	0	0	0	1	0	12
ATT DACS IV	0	41	34	6	17	2	12	13	8	133
TELLABS TITAN 5500	1	18	3	4	0	0	0	0	15	41
Total W-DCSs	**5**	**61**	**42**	**10**	**17**	**2**	**12**	**14**	**23**	**186**

DCS % by State

1/0 DCSs	AL	FL	GA	KY	LA	MS	NC	SC	TN	BS
ATT DACS II	27.8%	44.8%	48.6%	53.8%	100.0%	88.2%	31.0%	73.3%	94.4%	55.8%
DSC DEX CS1	50.0%	27.6%	0.0%	0.0%	0.0%	11.8%	2.4%	23.3%	0.0%	16.6%
TELLABS 532	22.2%	27.6%	51.4%	46.2%	0.0%	0.0%	66.7%	3.3%	5.6%	27.6%
Total 1/0 DCSs	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
W-DCSs										
ALCATEL 1631	80.0%	3.3%	11.9%	0.0%	0.0%	0.0%	0.0%	7.1%	0.0%	6.5%
ATT DACS IV	0.0%	67.2%	81.0%	60.0%	100.0%	100.0%	100.0%	92.9%	34.8%	71.5%
TELLABS TITAN 5500	20.0%	29.5%	7.1%	40.0%	0.0%	0.0%	0.0%	0.0%	65.2%	22.0%
Total W-DCSs	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table 0-2. 1/0 DCS Percentage of Occurrence on Channelized DS1s

Zones

State	1	2	3	Total
AL	15%	9%	0%	**11%**
FL	60%	76%	58%	**62%**
GA	57%	56%	14%	**54%**
KY	8%	N/A	4%	**6%**
LA	27%	28%	7%	**24%**
MS	30%	N/A	18%	**25%**
NC	50%	61%	23%	**49%**
SC	65%	68%	37%	**63%**
TN	23%	14%	3%	**19%**
BS	**45%**	**45%**	**19%**	**41%**

Table 0-3. W-DCS Percentage of Occurrence on Channelized DS3s

State	Zones 1	2		Totals
AL	21%	24%	0%	**21%**
FL	45%	25%	20%	**41%**
GA	80%	50%	15%	**70%**
KY	66%	N/A	33%	**55%**
LA	61%	43%	24%	**49%**
MS	44%	N/A	2%	**29%**
NC	16%	39%	3%	**19%**
SC	96%	83%	33%	**86%**
TN	12%	0%	0%	**8%**
BS	**47%**	**41%**	**16%**	**43%**

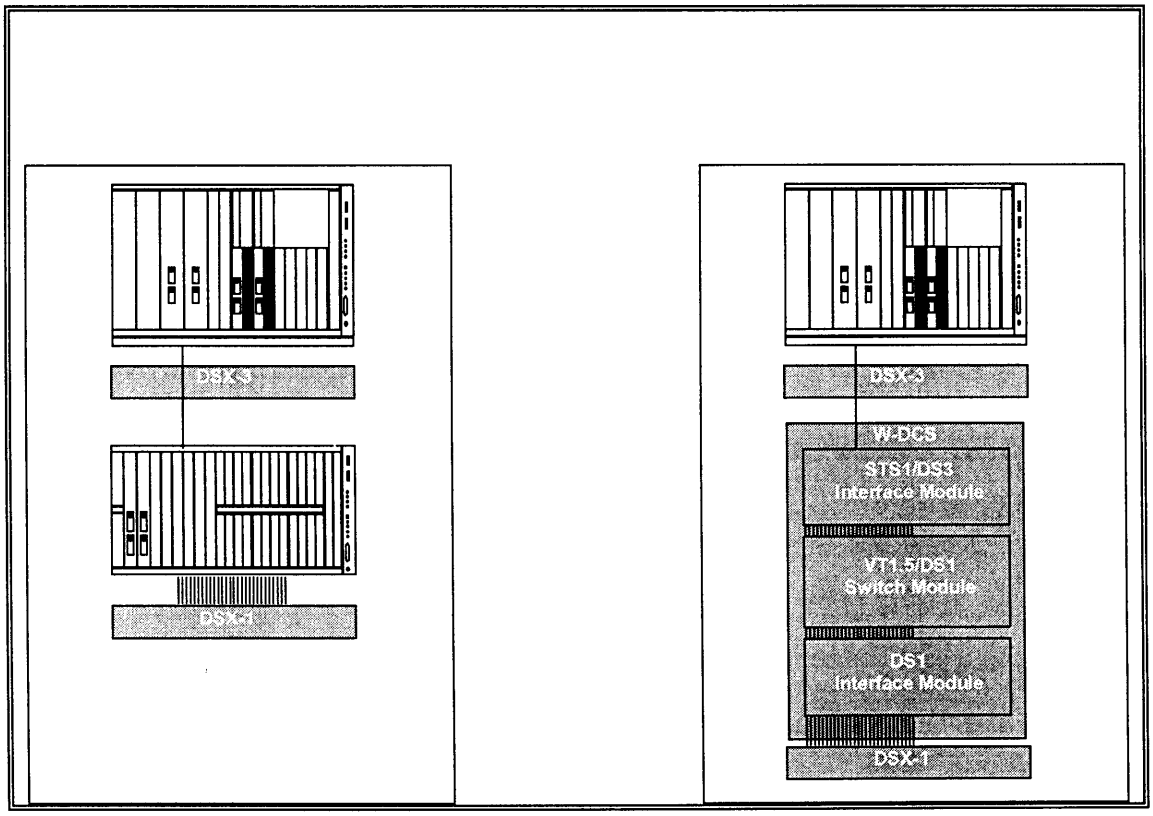


Figure II-1. UC-DS3 Architecture Examples

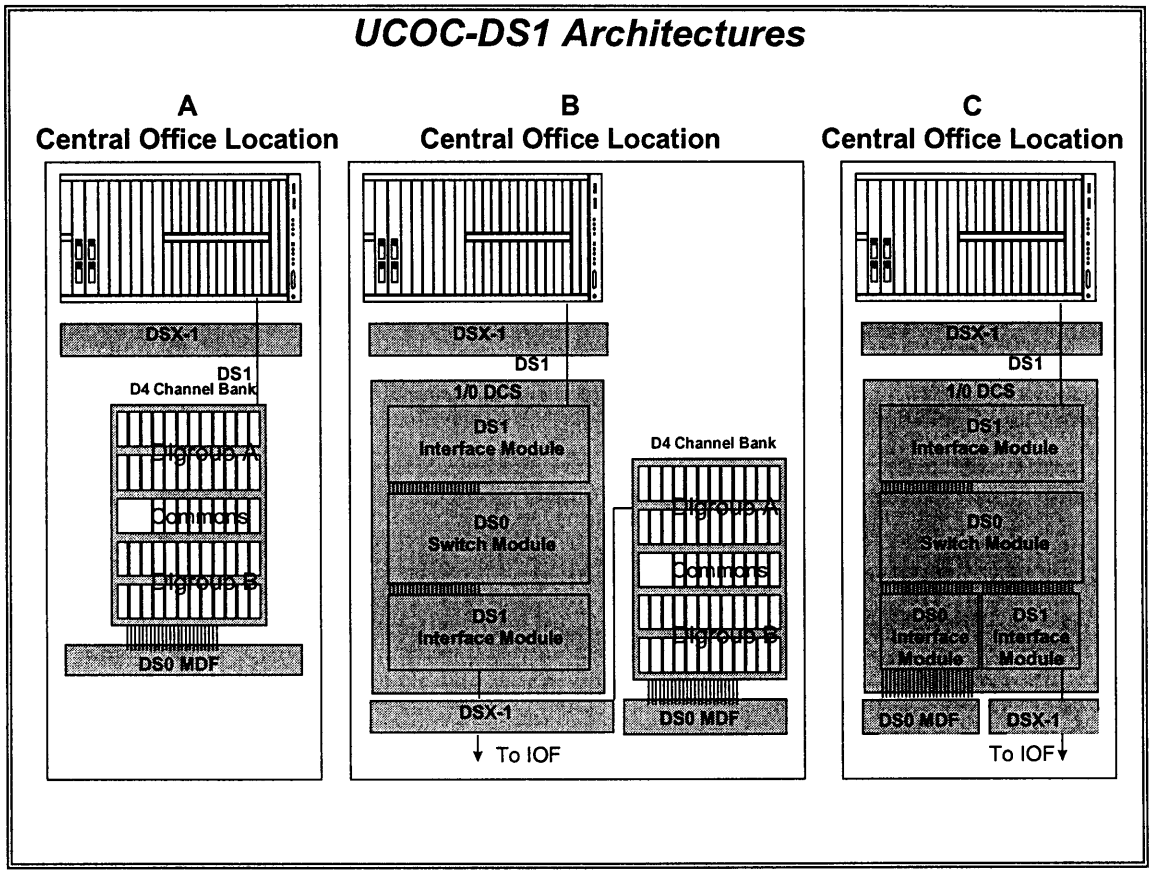


Figure II-2. **UC-DS1 Architecture Examples**

B. Operational Support Systems (OSS) Requirements

- Existing: TIRKS, NMA, WFA, PLRMS, PWS
- New: None

C. Software:

- None

III. PERFORMANCE STANDARDS/RELIABILITY

B. General Description of Performance Standards and Reliability (include "parity" requirements)

Service Performance Objectives:

- There will not be any specified performance objectives for this UNE. However, at the request of the customer, if made prior to the installation of the facilities, BellSouth will attempt to estimate the transmission loss of the channel at the customer's intended transmission wavelength: provided, however, that BellSouth does not warrant that the customer's channel will operate at that estimated loss or that the transmission loss will remain constant during the period in which the customer obtains the facilities from BellSouth.

Diversity Requirements:

- No requirements for UNEs but some level of diversity will exist in BST network (embedded and forward looking)

Performance Monitoring:

- None

Special Considerations:

- Billing Guarantees do not apply - there will be CABS cost to exclude UNEs from current processes

IV. ORDERING, ADMINISTRATION AND PROVISIONING (OA&P)

A. Intervals

- Firm Order Confirmation (FOC)
  Seven (7) days

- Targeted Installation (inclusive of FOC)
  Thirty (30) days

Notes and Rationale:

The FOC is based on a five-day service inquiry, plus two-day administration time.

The targeted installation comprises the FOC plus a twenty-three day network provisioning requirement.

The above intervals are based on receipt of a clean manual order. A Service Inquiry will be required only for DS3. An Engineering Job will be required. If equipment is required, then a field vendor will be involved. This will affect the installation interval.

Expedite charge for short intervals will apply. These products are under development at this time.

C. Description of Centers affected and their roles

Local Carrier Service Center (LCSC)
LSR will be received, Service Order Issuance, Send FOC (Firm order confirmation) to CLEC (Competitive Local Exchange Carrier)

Circuit Capacity Management (CCM)
Service Inquiry received and answered, TIRKS records prepared, facilities and equipment installed

Circuit Provisioning Group (CPG)
Circuit Designed, WORD Document Issued, DLR generated to CLEC

Outside Plant Construction (OSPC)
Circuit Installed based on WORD; Circuit Repaired based on WFA ticket

CO Operations
Circuit Installed based on WORD

Access Customer Advocacy Center (ACAC)
Receive Trouble Reports, Issue WFA ticket

AT&T	1/800-517-2511
MCI	1/800-517-5038
Sprint	1/800-988-1402

General Carriers 1/800-307-2513

When reporting a trouble:

-Provide the CLEC contact name and call back number
-Provide the BellSouth Circuit ID
-Provide the details of the trouble

C. Process Flow

DS3/OCX
UIT/ULL/LI-LC

1. CLEC CONTACTS ACCOUNT TEAM CONCERNING SERVICE

2. ACCOUNT TEAM ISSUES SERVICE INQUIRY TO OSPE AND CCM

3. OSPE AND CCM REVIEW AND RESPOND WITH DATES AND AVAILABILITY FOR SERVICE

   SPECIAL CONSTRUCTION MAY APPLY

4. OSPE AND CCM REPLY TO ACCOUNT TEAM

   OSPE ISSUES WORK ORDER TO PROVIDE EQUIPMENT
   CCM ISSUES DESIGN DOCUMENT

      IF SPECIAL CONSTRUCTION APPLIES THEN ADDITIONAL COPNTACT WITH THE CUSTOMER WILL BE NECESSARY

5. ACCOUNT TEAM REPLIES TO CLEC AND ISSUES LSR TO LCSC

6. LCSC ISSUES SERVICE ORDER

7. CPG ISSUES DESIGN DOCUMENT(S)

8. OPCC/VENDOR RESPONDS TO OSPE JOB TO PROVIDE EQUIPMENT AND OR TRANSPORT FACILITIES.

      CO OPRNS/VENDOR RESPOND TO CCM WORK ORDER

9. CO OPERATIONS RESPONDS TO CPG DESIGN DOCUMENT TO PROVIDE CONNECTIVITY.

10. UNE CENTER COORDINATES TURN-UP TESTS.

11. UNE CENTER TURNS UP SERVICE TO CLEC

V. LCSC

The LCSC is the CLECs' point of contact for ordering and billing of Unbundled Elements. The LCSC Service Representative will:

- Screen the Line Service Request (LSR) for accuracy and completeness.

- Clarify any error conditions with the CLEC.

- Issue the service order.

- Render the Firm Order Confirmation (FOC) to the CLEC.

- Respond to CLEC bill inquiries and resolve CLEC initiated disputes.

VI. RSOS

The RSOS representative works directly with the ICS staff and the Project team. The RSOS representative develops service orders to support facility based services, requests edits to support accurate issuance, and performs service order testing prior to implementation of the service.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of unbundled access to Frame Relay UNEs, including UNI, NNI, DLCI and CIR.

RESPONSE: BellSouth is not required by the Act nor by the FCC rules to provide access to frame relay or advanced services on an unbundled basis. Therefore, BellSouth does not provide or intend to provide frame relay or advanced services as UNEs.

REQUEST: Produce any and all documents that relate or refer to BellSouth's provisioning of Multiple Tandem Access (MTA).

RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Subject to and without waiving the foregoing objections, see attached 1Q00 standard interconnection agreement, attachment 3, paragraphs 2.9 through 2.13. Further responsive document(s) are proprietary. Such documents will be produced to Intermedia subject to the terms of the Protective Order entered in this proceeding.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 49

ATTACHMENT

Attachment 3

Network Interconnection

TABLE OF CONTENTS

The Parties shall provide interconnection with each other's networks for the transmission and routing of telephone exchange service (local) and exchange access (intraLATA toll and switched access) on the following terms:

1. Network Interconnection

All negotiated rates, terms and conditions set forth in this Attachment pertain to the provision of network interconnection.

1.1 Interconnection is available to both Parties through: (1) delivery of a Party's facilities to a collocation arrangement or Fiber Meet arrangement as defined in this Agreement; or (2) interconnection via purchase of facilities from the other Party. Interconnection may be provided by the Parties at any other technically feasible point. Requests to BellSouth for interconnection at other points may be made through the Bona Fide Request/New Business Request process set out in General Terms and Conditions.

1.2 CLEC-1 must establish, at a minimum, a single Point of Presence, Interface, and Interconnection with BellSouth within the LATA for the delivery of CLEC-1's originated local and intraLATA toll traffic and for the receipt and delivery of transit traffic. If CLEC-1 chooses to interconnect at a single Point of Interconnection within a LATA, the interconnection must be at a BellSouth Access Tandem. Furthermore, CLEC-1 must establish Points of Interconnection at all BellSouth access and local tandems where CLEC-1 NXXs are "homed." A "Homing" arrangement is defined by a "Final" Trunk Group between the BellSouth Tandem and CLEC-1 End Office switch. A "Final" Trunk Group is the last choice telecommunications path between the Tandem and End Office switch. It is CLEC-1's responsibility to enter its own NPA/NXX access and/or local tandem "homing" arrangements into the national Local Exchange Routing Guide (LERG).

1.2.1 In order for CLEC-1 to home its NPA/NXX(s) on a BellSouth Tandem, CLEC-1's NPA/NXX(s) must be assigned to an Exchange Rate Center Area served by that BellSouth Tandem and as specified by BellSouth. The specified association between BellSouth Tandems and Exchange Rate Center Areas is defined in the Local Exchange Routing Guide (LERG) as it is revised from time to time.

1.3 A **Point of Presence (POP)** is the physical location (a structure where the environmental, power, air conditioning, etc. specifications for a Party's terminating equipment can be met) at which a Party establishes itself for obtaining

access to the other Party's network. The POP is the physical location within which the Point of Interfaces occur.

1.4 A **Point of Interface** is the physical telecommunications interface between BellSouth and CLEC-1's interconnection functions. It establishes the technical interface and point of operational responsibility. The primary function of the Point of Interface is to serve as the terminus for the interconnection service. The Point of Interface has the following main characteristics:

1. It is a cross-connect point to allow connection, disconnection, transfer or restoration of service.
2. It is a point where BellSouth and CLEC-1 can verify and maintain specific performance objectives.
3. It is specified according to the interface offered in the tariff or local interconnection agreement (for example: for DS1 service the FCC # 1 tariff specifies that the interface meets the technical specifications detailed in Generic Requirements GR-342-CORE, Issue 1, December 1995.)
4. The Parties provide their own equipment (CPE) to interface with the DS0, DS1, DS3, STS1 and/or OCn circuits on the customer premises.

1.5 The **Point of Interconnection** is the point at which the originating Party delivers its originated traffic to the terminating Party's first point of switching on the terminating Party's common (shared) network for call transport and termination. Points of Interconnection are available at either Access Tandems, Local Tandems, or End Offices as described in this Agreement. CLEC-1's requested Point of Interconnection will also be used for the receipt and delivery of transit traffic at BellSouth Access and Local Tandems. Points of Interconnection established at the BellSouth Local Tandem apply only to CLEC-1-originated local and local originating and terminating transit traffic.

1.6 CLEC-1, at its option, shall establish Points of Presence and Points of Interface for the delivery of its originated local and intraLATA toll traffic to BellSouth. The Point of Interface may not necessarily be established at the Point of Interconnection.

1.7 BellSouth, at its option, shall designate the Points of Presence and Points of Interface for the delivery of its originated local and intraLATA toll traffic to CLEC-1 for call transport and termination by CLEC-1. The Point of Interface may not necessarily be established at the Point of Interconnection.

1.8 Interconnection via Leased Dedicated Transport Facilities

1.8.1 The originating Party may purchase Local Channel facilities from the terminating Party from the originating Party's specified Point of Interface to its serving wire

center. The Parties agree that charges for such Local Channel facilities are as set forth in Exhibit A to this Attachment. If a nonrecurring or recurring rate is not identified in Exhibit A for a Local Channel, the rate shall be as set forth in the appropriate BellSouth intrastate or interstate tariff for switched access services.

1.8.2 Additionally, either Party may purchase Dedicated Interoffice Transport facilities from its designated serving wire center to the other Party's first point of switching. The Parties agree that charges for such Dedicated Transport facilities are as set forth in Exhibit A to this Attachment. If a nonrecurring or recurring rate is not identified in Exhibit A for Dedicated Transport, the rate shall be as set forth in the appropriate BellSouth intrastate or interstate tariff for switched access services.

1.8.3 For the purposes of this Attachment, **Local Channel** is defined as a switch transport facility between a Party's Point of Presence and its designated serving wire center.

1.8.4 For the purposes of this Attachment, **Serving Wire Center** is defined as the wire center owned by one Party from which the other Party would normally obtain dial tone for its Point of Presence.

1.8.5 For the purposes of this Attachment, **Dedicated Interoffice Transport** is defined as a switch transport facility between a Party's designated serving wire center and the first point of switching on the other Party's common (shared) network.

1.9 Fiber Meet

1.9.1 **Fiber Meet** is an interconnection arrangement whereby the Parties physically interconnect their networks via an optical fiber interface (as opposed to an electrical interface) at which one Party's facilities, provisioning, and maintenance responsibility begins and the other Party's responsibility ends (i.e. Point of Interface).

1.9.2 If CLEC-1 elects to interconnect with BellSouth pursuant to a Fiber Meet, CLEC-1 and BellSouth shall jointly engineer and operate a Synchronous Optical Network ("SONET") transmission system by which they shall interconnect their transmission and routing of local traffic via a Local Channel facility at either the DS0, DS1, or DS3 level. The Parties shall work jointly to determine the specific transmission system. However, CLEC-1's SONET transmission must be compatible with BellSouth's equipment in the BellSouth Interconnection Wire Center. The same vendor's equipment and software version must be used, and the Data Communications Channel (DCC) must be turned off.

1.9.3 BellSouth shall, wholly at its own expense, procure, install and maintain the agreed upon SONET equipment in the BellSouth Interconnection Wire Center ("BIWC").

1.9.4 CLEC-1 shall, wholly at its own expense, procure, install and maintain the agreed upon SONET equipment in the CLEC-1 Interconnection Wire Center ("CLEC-1 Wire Center").

1.9.5 BellSouth shall designate a Point of Interface outside the BIWC as a Fiber Meet point, and shall make all necessary preparations to receive, and to allow and enable CLEC-1 to deliver, fiber optic facilities into the Point of Interface with sufficient spare length to reach the fusion splice point at the Point of Interface. BellSouth shall, wholly at its own expense, procure, install, and maintain the fusion splicing point in the Point of Interface. A Common Language Location Identification ("CLLI") code will be established for each Point of Interface. The code established must be a building type code. All orders shall originate from the Point of Interface (i.e., Point of Interface to CLEC-1, Point of Interface to BellSouth).

1.9.6 CLEC-1 shall deliver and maintain such strands wholly at its own expense. Upon verbal request by CLEC-1, BellSouth shall allow CLEC-1 access to the Fiber Meet entry point for maintenance purposes as promptly as possible.

1.9.7 The Parties shall jointly coordinate and undertake maintenance of the SONET transmission system. Each Party shall be responsible for maintaining the components of their own SONET transmission system.

1.9.8 Each Party will be responsible for (i) providing its own transport facilities to the Fiber Meet, and (ii) the cost to build-out its facilities to such Fiber Meet.

1.9.9 Neither Party shall charge the other for its portion of the Fiber Meet facility used exclusively for non-transit local traffic (i.e. the Local Channel). Charges incurred for other services including dedicated transport facilities to the Point of Interconnection if applicable will apply. Charges for Switched and Special Access Services shall be billed in accordance with the applicable Access Service tariff (i.e. the BellSouth Interstate or Intrastate Access Services Tariff).

2. Interconnection Trunking Architectures

2.1 BellSouth and CLEC-1 shall establish interconnecting trunk groups and trunking configurations between networks including the establishment of one-way or two-way trunks in accordance with the following provisions set forth in this Agreement.

2.2 Any CLEC-1 interconnection request that deviates from the standard trunking architectures as described in this Agreement that affects traffic delivered to CLEC-1 from a BellSouth switch that requires special BellSouth switch translations and other network modifications will require CLEC-1 to submit a Bona Fide Request/New Business Request via the Bona Fide Request/New Business Request Process set forth in General Terms and Conditions.

2.3 All terms and conditions, as well as charges, both non-recurring and recurring, associated with interconnecting trunk groups between BellSouth and CLEC-1 not addressed in Exhibit A shall be as set forth in the appropriate BellSouth intrastate or interstate tariff for switched access services. For two-way trunking that carries the Parties' local and intraLATA toll traffic only, excluding trunking that carries Transit Traffic, the Parties shall be compensated for the nonrecurring and recurring charges for trunks and DS1 facilities at 50% of the applicable contractual or tariff rates for the services provided by each Party. CLEC-1 shall be responsible for ordering and paying for any two-way trunks carrying transit traffic. Furthermore, CLEC-1 shall be responsible for the compensation for two-way trunking that it orders for its local and intraLATA toll but utilizes unidirectionally.

2.4 Switched Access traffic will be delivered to and by IXCs based on CLEC-1's NXX Access Tandem homing arrangement as specified by CLEC-1 in the national Local Exchange Routing Guide (LERG).

2.5 All trunk groups will be provisioned as Signaling System 7 (SS7) capable where technically feasible. If SS7 is not technically feasible multi-frequency (MF) protocol signaling shall be used.

2.6 In cases where CLEC-1 is also an IXC, the IXC's Feature Group D (FG D) trunking must remain separate from the local interconnection trunking.

2.7 Two-Way Trunking Requirements:

The following requirements apply to two-way trunking that carries the Parties local and intraLATA toll.

1. CLEC-1 will initiate two-way trunk request. The use of and quantity of two way trunking shall be mutually agreed upon and shall be jointly provisioned.

2. The Point of Interface will be located at a mutually agreed location or point designated by BellSouth. If an agreement cannot be reached on the location of the Point of Interface, each company will establish its own Point of Interface and order one-way trunks.

3. BellSouth and CLEC-1 will jointly review the trunk forecast, as needed, on a periodic basis, or at least every six (6) months.

4. CLEC-1 will order trunks using access service request (ASR) process in place for Local Interconnection after the joint planning meeting takes place between BellSouth and CLEC-1.

5. BellSouth and CLEC-1 must agree on traffic engineering parameters that will be used in the engineering of the trunk groups.

6. BellSouth and CLEC-1 must agree to meet and resolve service-affecting situations in a timely manner. This contact will normally be made through the Account Team.

7. Establishing a two-way trunk group does not preclude BellSouth or CLEC-1 from adding one-way trunk groups within the same Local Calling Area.

8. For technical reasons, two-way trunk groups may not be ordered to a BellSouth DMS100 Local Tandem or DMS100 End Office.

9. BellSouth will be responsible for the installation and maintenance of its trunks and facilities to the mutually agreed Point of Interface, and CLEC-1 will be responsible for the installation and maintenance of its trunks and facilities to the mutually agreed to Point of Interface.

2.8 BellSouth Access Tandem Interconnection Architectures

2.8.1 BellSouth Access Tandem Interconnection provides intratandem access to subtending end offices. BellSouth Multiple Tandem Access (MTA), described later in this Agreement, may be ordered using any of the following access tandem architectures.

2.8.2 Basic Architecture

2.8.2.1 In this architecture, CLEC-1's originating Local and IntraLATA Toll and originating and terminating Transit Traffic is transported on a single two-way trunk group between CLEC-1 and BellSouth access tandem(s) within a LATA.

This group carries intratandem Transit Traffic between CLEC-1 and Independent Companies, Interexchange Carriers, other CLECs and other network providers with which CLEC-1 desires interconnection and has the proper contractual arrangements. This group also carries CLEC-1 originated intertandem traffic transiting a single BellSouth access tandem destined to third party tandems such as an Independent Company tandem or other CLEC tandem. BellSouth originated Local and IntraLATA Toll traffic is transported on a single one-way trunk group terminating to CLEC-1. The Two-way Trunking Requirements described in this Attachment do not apply to this architecture. Other trunk groups for operator services, directory assistance, emergency services and intercept may be established if required. The LERG should be referenced for current routing and tandem serving arrangements. The Basic Architecture is illustrated in Exhibit B.

2.8.3 One-Way Trunking Architecture

2.8.3.1 In this architecture, the Parties interconnect using two one-way trunk groups. One one-way trunk group carries CLEC-1-originated local and intraLATA toll traffic destined for BellSouth end-users. The other one-way trunk group carries BellSouth-originated local and intraLATA toll traffic destined for CLEC-1 end-users. A third two-way trunk group is established for CLEC-1's originating and terminating Transit Traffic. This group carries intratandem Transit Traffic between CLEC-1 and Independent Companies, Interexchange Carriers, other CLECs and other network providers with which CLEC-1 desires interconnection and has the proper contractual arrangements. This group also carries CLEC-1 originated intertandem traffic transiting a single BellSouth access tandem destined to third party tandems such as an Independent Company tandem or other CLEC tandem. Other trunk groups for operator services, directory assistance, emergency services and intercept may be established if required. The LERG should be referenced for current routing and tandem serving arrangements. The One-Way Trunking Architecture is illustrated in Exhibit C.

2.8.4 Two-Way Trunking Architecture

2.8.4.1 The Two-Way Trunking Architecture establishes one two-way trunk group to carry local and intraLATA toll traffic between CLEC-1 and BellSouth. To establish this architecture, CLEC-1 and BellSouth must meet the Two-way Trunking Requirements described in this Attachment. In addition, a two-way transit trunk group must be established for CLEC-1's originating and terminating Transit Traffic. This group carries intratandem Transit Traffic between CLEC-1 and Independent Companies, Interexchange Carriers, other CLECs and other network providers with which CLEC-1 desires interconnection and has the proper contractual arrangements. This group also carries CLEC-1 originated intertandem traffic transiting a single BellSouth access tandem destined to third party tandems such as an Independent Company tandem or other CLEC tandem. Other trunk groups for operator services, directory assistance, emergency services and

intercept may be established if required. The LERG should be referenced for current routing and tandem serving arrangements. The Two-Way Trunking Architecture is illustrated in Exhibit D.

2.8.5 Supergroup Architecture

2.8.5.1 In the Supergroup Architecture, the Parties Local and IntraLATA Toll and CLEC-1's Transit Traffic is exchanged on a single two-way trunk group between CLEC-1 and BellSouth. To establish this architecture, CLEC-1 and BellSouth must meet the Two-way Trunking Requirements described in this Attachment. This group carries intratandem Transit Traffic between CLEC-1 and Independent Companies, Interexchange Carriers, other CLECs and other network providers with which CLEC-1 desires interconnection and has the proper contractual arrangements. This group also carries CLEC-1 originated intertandem traffic transiting a single BellSouth access tandem destined to third party tandems such as an Independent Company tandem or other CLEC tandem. Other trunk groups for operator services, directory assistance, emergency services and intercept may be established if required. The LERG should be referenced for current routing and tandem serving arrangements. The Supergroup Architecture is illustrated in Exhibit E.

2.9 BellSouth **Multiple Tandem Access (MTA)** provides for LATA wide BellSouth transport and termination of CLEC-1-originated intraLATA toll and local traffic, that is transported by BellSouth, by establishing a Point of Interconnection at a BellSouth access tandem with routing through multiple BellSouth access tandems as required. However, CLEC-1 must still establish Points of Interconnection at all BellSouth access tandems where CLEC-1 NXXs are "homed". If CLEC-1 does not have NXXs homed at a BellSouth access tandem within a LATA and elects not to establish Points of Interconnection at such BellSouth access tandem, CLEC-1 can order MTA in each BellSouth access tandem within the LATA where it does have a Point of Interconnection and BellSouth will terminate traffic to end-users served through those BellSouth access tandems where CLEC-1 does not have a Point of Interconnection. MTA shall be provisioned in accordance with BellSouth's Ordering Guidelines.

2.10 MTA does not include switched access traffic that transits the BellSouth network to an Interexchange Carrier (IXC). Switched Access traffic will be delivered to and by IXCs based on CLEC-1's NXX Access Tandem homing arrangement as specified by CLEC-1 in the national Local Exchange Routing Guide (LERG).

2.11 For CLEC-1-originated local and intraLATA toll traffic that BellSouth transports but is destined for termination by a third Party network (transit traffic), BellSouth MTA is required if multiple BellSouth access tandems are necessary to deliver the call to the third Party network.

2.12 The Parties agree that compensation for the BellSouth transport and/or termination of CLEC-1's local and intraLATA toll traffic will be billed on a statewide basis at the applicable rates specified in Exhibit A to this Attachment for local traffic and at the BellSouth intrastate switched access tariff rates for intraLATA toll traffic.

2.13 To the extent CLEC-1 does not purchase MTA in a calling area that has multiple access tandems serving the calling area as defined by BellSouth, CLEC-1 must establish Points of Interconnection to every access tandem in the calling area in order to serve the entire calling area. To the extent CLEC-1 does not purchase MTA and provides intraLATA toll service to its customers, it may be necessary for it to establish a Point of Interconnection to additional BellSouth access tandems that serve end offices outside the local calling area. To the extent CLEC-1 routes its traffic in such a way that utilizes BellSouth's MTA service without properly ordering MTA service, CLEC-1 agrees to pay BellSouth the associated transport and termination charges.

2.14 BellSouth End Office Interconnection

2.14.1 CLEC-1 may establish interconnection at BellSouth end offices for the delivery of CLEC-1 originated local and intralata toll traffic destined for BellSouth end-users served by that end-office.

2.14.2 When end office trunking is ordered by BellSouth to deliver BellSouth originated traffic to CLEC-1, BellSouth will provide overflow routing through BellSouth tandems consistent with how BellSouth overflows it's traffic. The overflow will be based on the homing arrangements CLEC-1 displays in the LERG. Likewise, if CLEC-1 interconnects to a BellSouth end office for delivery of CLEC-1 originated traffic, CLEC-1 will overflow the traffic through the BellSouth tandems based on the BellSouth homing arrangements shown in the LERG.

2.14.3 The Parties shall utilize direct end office trunking under the following conditions:

(1) Tandem Exhaust - If a tandem through which the Parties are interconnected is unable to, or is forecasted to be unable to support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the tandem capacity shortage and ensure completion of traffic between CLEC-1 and BellSouth's subscribers.

(2) Traffic Volume –To the extent either Party has the capability to measure the amount of traffic between a CLEC-1 switching center and a BellSouth end office, either Party shall install and retain direct end office trunking sufficient to handle actual or reasonably forecasted traffic volumes, whichever is greater, between a CLEC-1 switching center and a BellSouth end office where the traffic exceeds or is forecasted to exceed a single DS1 of local traffic per month. Either Party will install additional capacity between such points when overflow traffic between CLEC-1's switching center and BellSouth's end office exceeds or is forecasted to exceed a single DS1 of local traffic per month. In the case of one way trunking, additional trunking shall only be required by the Party whose trunking has achieved the preceding usage threshold.

(3) Mutual Agreement - The Parties may install direct end office trunking upon mutual agreement in the absence of conditions (1) or (2) above and agreement will not unreasonably be withheld.

2.15 Local Tandem Interconnection.

2.15.1 This interconnection arrangement allows CLEC-1 to establish a Point of Interconnection at BellSouth local tandems for: (1) the delivery of CLEC-1-originated local traffic transported and terminated by BellSouth to BellSouth end offices within the local calling area as defined in BellSouth's General Subscriber Services Tariff (GSST), section A3 served by those BellSouth local tandems, and (2) for local transit traffic transported by BellSouth for third party network

providers who have also established Points of Interconnection at those BellSouth local tandems.

2.15.2 When a specified local calling area is served by more than one BellSouth local tandem, CLEC-1 must designate a "home" local tandem for each of its assigned NPA/NXXs and establish trunk connections to such local tandems. Additionally, CLEC-1 may choose to establish a Point of Interconnection at the BellSouth local tandems where it has no codes homing but is not required to do so. CLEC-1 may deliver local traffic to a "home" BellSouth local tandem that is destined for other BellSouth or third party network provider end offices subtending other BellSouth local tandems in the same local calling area where CLEC-1 does not choose to establish a Point of Interconnection. It is CLEC-1's responsibility to enter its own NPA/NXX local tandem homing arrangements into the Local Exchange Routing Guide (LERG) either directly or via a vendor in order for other third party network providers to determine appropriate traffic routing to CLEC-1's codes. Likewise, CLEC-1 shall obtain its routing information from the LERG.

2.15.3 Notwithstanding establishing Points of Interconnection to BellSouth's local tandems, CLEC-1 must also establish Points of Interconnection to BellSouth access tandems within the LATA on which CLEC-1 has NPA/NXXs homed for the delivery of Interexchange Carrier Switched Access (SWA) and toll traffic, and traffic to Type 2A CMRS connections located at the access tandems. BellSouth shall not switch SWA traffic through more than one BellSouth access tandem. SWA, Type 2A CMRS or toll traffic routed to the local tandem in error will not be backhauled to the BellSouth access tandem for completion. (Type 2A CMRS interconnection is defined in BellSouth's A35 General Subscriber Services Tariff.)

2.15.4 BellSouth's provisioning of local tandem interconnection assumes that CLEC-1 has executed the necessary local interconnection agreements with the other third party network providers subtending those local tandems as required by the Act.

3. Network Design And Management For Interconnection

3.1 Network Management and Changes. Both Parties will work cooperatively with each other to install and maintain the most effective and reliable interconnected telecommunications networks, including but not limited to, the exchange of toll-free maintenance contact numbers and escalation procedures. Both Parties agree to provide public notice of changes in the information necessary for the transmission and routing of services using its local exchange facilities or networks, as well as of any other changes that would affect the interoperability of those facilities and networks.

3.2 Interconnection Technical Standards. The interconnection of all networks will be based upon accepted industry/national guidelines for transmission standards and traffic blocking criteria. Interconnecting facilities shall conform, at a minimum, to the telecommunications industry standard of DS-1 pursuant to Bellcore Standard No. TR-NWT-00499. Signal transfer point, Signaling System 7 ("SS7") connectivity is required at each interconnection point. BellSouth will provide out-of-band signaling using Common Channel Signaling Access Capability where technically and economically feasible, in accordance with the technical specifications set forth in the BellSouth Guidelines to Technical Publication, TR-TSV-000905. Facilities of each Party shall provide the necessary on-hook, off-hook answer and disconnect supervision and shall hand off calling number ID (Calling Party Number) when technically feasible.

3.3 Quality of Interconnection. The local interconnection for the transmission and routing of telephone exchange service and exchange access that each Party provides to each other will be at least equal in quality to what it provides to itself and any subsidiary or affiliate, where technically feasible, or to any other Party to which each Party provides local interconnection.

3.4 Network Management Controls. Both Parties will work cooperatively with each other to apply sound network management principles by invoking appropriate network management controls (e.g., call gapping) to alleviate or prevent network congestion.

3.5 Common Channel Signaling. Both Parties will provide LEC-to-LEC Common Channel Signaling ("CCS") to each other, where available, in conjunction with all traffic in order to enable full interoperability of CLASS features and functions except for call return. All CCS signaling parameters will be provided, including automatic number identification ("ANI"), originating line information ("OLI") calling company category, charge number, etc. All privacy indicators will be honored, and each Party will cooperate with each other on the exchange of Transactional Capabilities Application Part ("TCAP") messages to facilitate full interoperability of CCS-based features between the respective networks. Neither Party shall alter the CCS parameters, or be a party to altering such parameters, or knowingly pass CCS parameters that have been altered in order to circumvent appropriate interconnection charges.

3.6 Signaling Call Information. BellSouth and CLEC-1 will send and receive 10 digits for local traffic. Additionally, BellSouth and CLEC-1 will exchange the proper call information, i.e. originated call company number and destination call company number, CIC, and OZZ, including all proper translations for routing between networks and any information necessary for billing.

3.7 Forecasting Requirements. The Parties shall exchange technical descriptions and forecasts of their interconnection and traffic requirements in sufficient detail necessary to establish the interconnections required to assure traffic completion to and from all customers in their respective designated service areas. In order for the Parties to provide as accurate reciprocal trunking forecasts as possible to each other, each Party must timely inform the other Party of any known or anticipated events that may affect reciprocal trunking requirements. If either Party is unable to provide such information, The Parties shall provide reciprocal trunking forecasts based only on existing trunk group growth and annual estimated percentage of subscriber line growth.

3.7.1 Both Parties shall meet every six months or at otherwise mutually agreeable intervals for the purpose of exchanging non-binding forecasts of its traffic and volume requirements for the interconnection and network elements provided under this Agreement, in the form and in such detail as agreed by the Parties. The Parties agree that each forecast provided under this Section shall be deemed "Confidential Information" in the General Terms and Conditions – Part A of this Agreement.

3.7.2 The trunk forecast should include trunk requirements for all of the interconnecting trunk groups for the current year plus the next two future years. The forecast meeting between the two companies may be a face-to-face meeting, video conference or audio conference. It may be held regionally or geographically. Ideally, these forecast meetings should be held at least semi-annually, or more often if the forecast is no longer usable. Updates to a forecast or portions thereof should be made whenever the Party providing the forecast deems that the latest trunk requirements exceed the original quantities by 24 trunks or 10%, whichever is greater. Either Party should notify the other Party if they have measurements indicating that a trunk group is exceeding its designed call carrying capacity and is impacting other trunk groups in the network. Also, either Party should notify the other Party if they know of situations in which the traffic load is expected to increase significantly and thus affect the interconnecting trunk requirements as well as the trunk requirements within the other Party's network. The Parties agree that the forecast information provided under this Section shall be deemed "Confidential Information" as set forth in the General Terms and Conditions of this Agreement.

3.7.3 For a non-binding trunk forecast, agreement between the two Parties on the trunk quantities and the timeframe of those trunks does not imply any liability for failure to perform if the trunks are not available for use at the required time.

4. Local Dialing Parity

4.1 BellSouth and CLEC-1 shall provide local and toll dialing parity to each other with no unreasonable dialing delays. Dialing parity shall be provided for all originating telecommunications services that require dialing to route a call. BellSouth and CLEC-1 shall permit similarly situated telephone exchange service end users to dial the same number of digits to make a local telephone call notwithstanding the identity of the end user's or the called party's telecommunications service provider.

5. Interconnection Compensation

5.1 Compensation for Call Transportation and Termination for Local Traffic

5.1.1 Local Traffic is defined as any telephone call that originates in one exchange and terminates in either the same exchange, or other local calling area associated with the originating exchange as defined and specified in Section A3 of BellSouth's General Subscriber Service Tariff. As clarification of this definition and for reciprocal transport and termination compensation, Local Traffic does not include traffic that originates from or is directed to or through an enhanced service provider or information service provider. As further clarification, Local Traffic does not include calls that do not transmit information of the user's choosing. In any event, neither Party will pay reciprocal compensation to the other if the "traffic" to which such reciprocal compensation would otherwise apply was generated, in whole or in part, for the purpose of creating an obligation on the part of the originating carrier to pay reciprocal compensation for such traffic.

5.1.2 The Parties shall provide for the mutual and reciprocal recovery of the costs for the elemental functions performed in transporting and terminating local traffic on each other's network. The Parties agree that charges for transport and termination of calls on its respective networks are as set forth in Exhibit A to this Attachment.

5.1.3 For the purposes of this Attachment, **Common (Shared) Transport** is defined as the transport of the originating Party's traffic by the terminating Party over the terminating Party's common (shared) facilities between the terminating Party's tandem switch and end office switch and/or between the terminating Party's tandem switches.

5.1.4 For the purposes of this Attachment, **Tandem Switching** is defined as the function that establishes a communications path between two switching offices through a third switching office (the Tandem switch).

5.1.5 For the purposes of this Attachment, **End Office Switching** is defined as the function that establishes a communications path between the trunk side and line side of the End Office switch.

5.1.6 If CLEC-1 utilizes a switch outside the LATA and BellSouth chooses to purchase dedicated or common (shared) transport from CLEC-1 for transport and termination of BellSouth originated traffic, BellSouth will pay CLEC-1 no more than the airline miles between the V & H coordinates of the Point of Interface within the LATA where CLEC-1 receives the BellSouth-originated traffic and the V & H coordinates of the BellSouth Exchange Rate Center Area that the CLEC-1 terminating NPA/NXX is associated in the same LATA. For these situations, BellSouth will compensate CLEC-1 at either dedicated or common (shared) transport rates specified in Exhibit A and based upon the functions provided by CLEC-1 as defined in this Attachment.

5.1.7 Neither Party shall represent access services traffic (e.g. Internet Protocol (IP) Telephony, FGA, FGB, etc.) as Local Traffic for purposes of payment of reciprocal compensation.

5.1.8 The Parties agree that the jurisdiction of a call is determined by its originating and terminating (end-to-end) points. For the purpose of delivery of BellSouth originating traffic to CLEC-1, BellSouth will pay to CLEC-1 reciprocal compensation for Local Traffic terminating to CLEC-1 end users physically located in the BellSouth rate center to which the CLEC-1 end user's NPA/NXX is assigned. If CLEC-1 assigns NPA/NXXs to specific BellSouth rate centers and assigns numbers from those NPA/NXXs to CLEC-1 end users physically located outside of the rate center to which the NPA/NXX is assigned, BellSouth traffic originating from within the BellSouth rate center where the NPA/NXX is assigned and terminating to a CLEC-1 customer physically located outside of such rate center, and at a location toll to the BellSouth originating rate center, shall not be deemed Local Traffic, and no compensation from BellSouth to CLEC-1 shall be due therefor. Further, CLEC-1 agrees to identify such traffic to BellSouth and to compensate BellSouth for originating and transporting such traffic to CLEC-1 at BellSouth's tariffed intrastate switched access rates. In addition, CLEC-1 should not use NPA/NXXs to collect BellSouth originated local or intraLATA toll traffic and for delivery to a point outside the LATA from where the originating NPA/NXX rate center resides.

5.1.9 If CLEC-1 does not identify such traffic to BellSouth, to the best of BellSouth's ability BellSouth will determine which whole CLEC-1 NPA/NXXs on which to charge the applicable rates for originating intrastate network access service as reflected in BellSouth's Intrastate Access Service Tariff. BellSouth shall make appropriate billing adjustments if CLEC-1 can provide sufficient information for BellSouth to determine whether said traffic is local or toll.

5.2 Percent Local Use. Each Party will report to the other a Percentage Local Usage ("PLU"). The application of the PLU will determine the amount of local minutes to be billed to the other Party. For purposes of developing the PLU, each Party shall consider every local call and every long distance call, excluding intermediary traffic. By the first of January, April, July and October of each year, each Party shall provide a positive report updating the PLU. Requirements associated with PLU calculation and reporting shall be as set forth in BellSouth's Percent Local Use Reporting Guidebook, as it is amended from time to time. Notwithstanding the foregoing, where the terminating Party has message recording technology that identifies the jurisdiction of traffic terminated as defined in this Agreement, such information, in lieu of the PLU factor, shall at the terminating Party's option be utilized to determine the appropriate local usage compensation to be paid.

5.3 Percentage Interstate Usage. In the case where CLEC-1 desires to terminate its local traffic over or co-mingled on its switched access Feature Group D trunks, CLEC-1 will be required to provide a projected Percentage Interstate Usage ("PIU") to BellSouth. All jurisdictional report requirements, rules and regulations for Interexchange Carriers specified in BellSouth's Intrastate Access Services Tariff will apply to CLEC-1. After interstate and intrastate traffic percentages have been determined by use of PIU procedures, the PLU factor will be used for application and billing of local interconnection. Notwithstanding the foregoing, where the terminating Party has message recording technology that identifies the jurisdiction of traffic terminated as defined in this Agreement, such information, in lieu of the PIU and PLU factor, shall at the terminating Party's option be utilized to determine the appropriate local usage compensation to be paid.

5.4 Audits. On thirty (30) days written notice, each Party must provide the other the ability and opportunity to conduct an annual audit to ensure the proper billing of traffic. BellSouth and CLEC-1 shall retain records of call detail for a minimum of nine months from which a PLU and/or PIU can be ascertained. The audit shall be accomplished during normal business hours at an office designated by the Party being audited. Audit requests shall not be submitted more frequently than one (1) time per calendar year. Audits shall be performed by a mutually acceptable independent auditory paid for by the Party requesting the audit. The PLU and/or PIU shall be adjusted based upon the audit results and shall apply to the usage for the quarter the audit was completed, to the usage for the quarter prior to the completion of the audit, and to the usage for the two quarters following the completion of the audit. If, as a result of an audit, either Party is found to have overstated the PLU and/or PIU by twenty percentage points (20%) or more, that Party shall reimburse the auditing Party for the cost of the audit.

5.5 Rate True-up

This section applies only to North Carolina and Tennessee and other rates that are interim or expressly subject to true-up under this attachment.

5.5.1 The interim prices for Unbundled Network Elements and Other Services and Local Interconnection shall be subject to true-up according to the following procedures:

5.5.2 The interim prices shall be trued-up, either up or down, based on final prices determined either by further agreement between the Parties, or by a final order (including any appeals) of the Commission which final order meets the criteria of (3) below. The Parties shall implement the true-up by comparing the actual volumes and demand for each item, together with interim prices for each item, with the final prices determined for each item. Each Party shall keep its own records upon which the true-up can be based, and any final payment from one Party to the other shall be in an amount agreed upon by the Parties based on such records. In the event of any disagreement as between the records or the Parties regarding the amount of such true-up, the Parties agree that the body having jurisdiction over the matter shall be called upon to resolve such differences, or the Parties may mutually agree to submit the matter to the Dispute Resolution process in accordance with the provisions of Section 12 of the General Terms and Conditions and Attachment 1 of the Agreement.

5.5.3 The Parties may continue to negotiate toward final prices, but in the event that no such agreement is reached within nine (9) months, either Party may petition the Commission to resolve such disputes and to determine final prices for each item. Alternatively, upon mutual agreement, the Parties may submit the matter to the Dispute Resolution Process set forth in the General Terms and Conditions of the Agreement, so long as they file the resulting Agreement with the Commission as a "negotiated agreement" under Section 252(e) of the Act.

5.5.4 A final order of this Commission that forms the basis of a true-up shall be the final order as to prices based on appropriate cost studies, or potentially may be a final order in any other Commission proceeding which meets the following criteria:

(a) BellSouth and CLEC is entitled to be a full Party to the proceeding;

(b) It shall apply the provisions of the federal Telecommunications Act of 1996, including but not limited to Section 252(d)(1) (which contains pricing standards) and all then-effective implementing rules and regulations; and,

(c) It shall include as an issue the geographic deaveraging of unbundled element prices, which deaveraged prices, if any are required by said final order, shall form the basis of any true-up.

5.6 Compensation for IntraLATA Toll Traffic

5.6.1 IntraLATA Toll Traffic. IntraLATA Toll Traffic is defined as any telephone call that is not local or switched access per this Agreement.

5.6.2 Compensation for intraLATA toll traffic. For terminating its intraLATA toll traffic on the other company's network, the originating Party will pay the terminating Party BellSouth's current intrastate or interstate, whichever is appropriate, terminating switched access tariff rates as set forth in BellSouth's Intrastate or Interstate Access Services Tariff. The appropriate charges will be determined by the routing of the call. If CLEC-1 is the BellSouth end user's presubscribed interexchange carrier or if the BellSouth end user uses CLEC-1 as an interexchange carrier on a 101XXXX basis, BellSouth will charge CLEC-1 the appropriate BellSouth tariff charges for originating switched access services.

5.6.3 Compensation for 8XX Traffic. Each Party shall compensate the other pursuant to the appropriate switched access charges, including the database query charge as set forth in the BellSouth intrastate or interstate switched access tariffs.

5.6.4 Records for 8XX Billing. Each Party will provide to the other the appropriate records necessary for billing intraLATA 8XX customers. The records provided will be in a standard EMI format for a fee of $0.013 per record.

5.6.5 8XX Access Screening. BellSouth's provision of 8XX TFD to CLEC-1 requires interconnection from CLEC-1 to BellSouth 8XX SCP. Such interconnections shall be established pursuant to BellSouth's Common Channel Signaling Interconnection Guidelines and Bellcore's CCS Network Interface Specification document, TR-TSV-000905. CLEC-1 shall establish CCS7 interconnection at the BellSouth Local Signal Transfer Points serving the BellSouth 8XX SCPs that CLEC-1 desires to query. The terms and conditions for 8XX TFD are set out in BellSouth's Intrastate Access Services Tariff as amended.

5.7 Mutual Provision of Switched Access Service

5.7.1 Switched Access Traffic. Switched Access Traffic is as defined in the BellSouth Access Tariff. Additionally, IP Telephony traffic will be considered switched access traffic.

5.7.2 When CLEC-1's end office switch, subtending the BellSouth Access Tandem switch for receipt or delivery of switched access traffic, provides an access service connection to or from an interexchange carrier ("IXC") by either a direct trunk group to the IXC utilizing BellSouth facilities, or via BellSouth's tandem switch, each Party will provide its own access services to the IXC on a multi-bill, multi-tariff meet-point basis. Each Party will bill its own access services rates to the IXC with the exception of the interconnection charge. The interconnection charge

will be billed by the Party providing the end office function. Each party will use the Multiple Exchange Carrier Access Billing (MECAB) system to establish meet point billing for all applicable traffic. Thirty (30)-day billing periods will be employed for these arrangements. The recording Party agrees to provide to the initial billing Party, at no charge, the switched access detailed usage data within no more than sixty (60) days after the recording date. The initial billing Party will provide the switched access summary usage data to all subsequent billing Parties within 10 days of rendering the initial bill to the IXC. Each Party will notify the other when it is not feasible to meet these requirements so that the customers may be notified for any necessary revenue accrual associated with the significantly delayed recording or billing. As business requirements change data reporting requirements may be modified as necessary.

5.7.3 Where either Party has been notified that the other Party has a Billing Guarantee Practice, each Party so notified (the Initial Billing Party or the recording Party) will be held liable for any access revenues which it has caused to be determined unbillable under the guidelines of such Billing Guarantee Practice of the other Party. Each Party will provide complete documentation to the other to substantiate any claim of unbillable access revenues. A negotiated settlement will be agreed upon between the Parties.

5.7.4 Each Party will retain for a minimum period of sixty (60) days, access message detail sufficient to recreate any data which is lost or damaged by their company or any third party involved in processing or transporting data.

5.7.5 Each Party agrees to recreate the lost or damaged data within forty-eight (48) hours of notification by the other or by an authorized third party handling the data.

5.7.6 Each Party also agrees to process the recreated data within forty-eight (48) hours of receipt at its data processing center.

5.7.7 All claims should be filed with the other Party within 120 days of the receipt of the date of the unbillable usage.

5.7.8 The Initial Billing Party shall keep records of its billing activities relating to jointly-provided Intrastate and Interstate access services in sufficient detail to permit the Subsequent Billing Party to, by formal or informal review or audit, to verify the accuracy and reasonableness of the jointly-provided access billing data provided by the Initial billing Party. Each Party agrees to cooperate in such formal or informal reviews or audits and further agrees to jointly review the findings of such reviews or audits in order to resolve any differences concerning the findings thereof.

5.7.9 CLEC-1 agrees not to deliver switched access traffic to BellSouth for termination except over CLEC-1 ordered switched access trunks and facilities.

5.8 Transit Traffic Service. BellSouth shall provide tandem switching and transport services for CLEC-1's transit traffic. Transit traffic is traffic originating on CLEC-1's network that is switched and/or transported by BellSouth and delivered to a third party's network, or traffic originating on a third Party's network that is switched and/or transported by BellSouth and delivered to CLEC-1's network . Rates for local transit traffic shall be the applicable call transport and termination charges as set forth in Exhibit A to this Attachment. Rates for intraLATA toll and Switched Access transit traffic shall be the applicable call transport and termination charges as set forth in BellSouth Interstate or Intrastate Switched Access tariffs. Switched Access transit traffic presumes that CLEC-1's end office is subtending the BellSouth Access Tandem for switched access traffic to and from CLEC-1's end users utilizing BellSouth facilities, either by direct trunks with the IXC, or via the BellSouth Access Tandem. Billing associated with all transit traffic shall be pursuant to Multiple Exchange Carrier Access Billing (MECAB) procedures. Wireless Type 1 traffic shall not be treated as transit traffic from a routing or billing perspective. Wireless Type 2A traffic shall not be treated as transit traffic from a routing or billing perspective until BellSouth and the Wireless carrier have the capability to properly meet-point-bill in accordance with MECAB guidelines.

5.8.1 The delivery of traffic which transits the BellSouth network and is transported to another carrier's network is excluded from any BellSouth billing guarantees and will be delivered at the rates stipulated in this Agreement to a terminating carrier. BellSouth agrees to deliver this traffic to the terminating carrier; provided, however, that CLEC-1 is solely responsible for negotiating and executing any appropriate contractual agreements with the terminating carrier for the receipt of this traffic through the BellSouth network. BellSouth will not be liable for any compensation to the terminating carrier or to CLEC-1. CLEC-1 agrees to compensate BellSouth for any charges or costs for the delivery of transit traffic to a connecting carrier on behalf of CLEC-1. Additionally, the Parties agree that any billing to a third party or other telecommunications carrier under this section shall be pursuant to MECAB procedures.

5.9 Interconnection with Enhanced Service Providers (ESPs)/Information Service Providers (ISPs). ESP/ISP traffic shall not be included in the interconnection compensation arrangements of this Agreement.

6. Frame Relay Service

6.1 In addition to the Local Interconnection services set forth above, BellSouth will offer a network to network Interconnection arrangement between BellSouth's and CLEC-1's frame relay switches as set forth below. The following provisions will

apply only to Frame Relay Service and Exchange Access Frame Relay Service in those states in which CLEC-1 is certified and providing Frame Relay Service as a Local Exchange Carrier and where traffic is being exchanged between CLEC-1 and BellSouth Frame Relay Switches in the same LATA.

6.2 The Parties agree to establish two-way Frame Relay facilities between their respective Frame Relay Switches to the mutually agreed upon Frame Relay Service point(s) of interconnection ("POI(s)") within the LATA. All POIs shall be within the same Frame Relay Network Serving Areas as defined in Section A40 of BellSouth's General Subscriber Service Tariff except as set forth in this Attachment.

6.3 Upon the request of either Party, such interconnection will be established where BellSouth and CLEC-1 have Frame Relay Switches in the same LATA. Where there are multiple Frame Relay switches in one central office, an interconnection with any one of the switches will be considered an interconnection with all of the switches at that central office for purposes of routing packet traffic.

6.4 The Parties agree to provision local and IntraLATA Frame Relay Service and Exchange Access Frame Relay Service (both intrastate and interstate) over Frame Relay interconnection facilities between the respective Frame Relay switches and the POIs.

6.5 The Parties agree to assess each other reciprocal charges for the facilities that each provides to the other according to the Percent Local Circuit Use Factor (PLCU), determined as follows:

6.5.1 If the data packets originate and terminate in locations in the same LATA, and consistent with the local definitions of the Agreement, the traffic is considered local. Frame Relay framed packet data is transported within Virtual Circuits (VC). For the purposes of this Agreement, if all the data packets transported within a VC remain within the LATA, then consistent with the local definitions in this Agreement, the traffic on that VC is local ("Local VC").

6.5.2 If the originating and terminating locations of the two way packet data traffic are not in the same LATA, the traffic on that VC is interLATA ("InterLATA VC").

6.5.3 The PLCU is determined by dividing the total number of Local VCs, by the total number of VCs on each Frame Relay facility. To facilitate implementation, CLEC-1 may determine its PLCU in aggregate, by dividing the total number of Local VCs in a given LATA by the total number VCs in that LATA. The Parties agree to renegotiate the method for determining PLCU, at BellSouth's request, and within 90 days, if BellSouth notifies CLEC-1 that it has found that this method does not adequately represent the PLCU.

6.5.4 If there are no VCs on a facility when it is billed, the PLCU will be zero.

6.5.5 BellSouth will provide the circuit between the Parties' respective Frame Relay Switches. The Parties will be compensated as follows: BellSouth will invoice, and CLEC-1 will pay, the total non-recurring and recurring charges for the circuit based upon the rates set forth in BellSouth's Interstate Access Tariff, FCC No. 1. CLEC-1 will then invoice, and BellSouth will pay, an amount calculated by multiplying the BellSouth billed charges for the circuit by one-half of CLEC-1's PLCU.

6.6 The Parties agree to compensate each other for Frame Relay network-to-network interface (NNI) ports based upon the NNI rates set forth in BellSouth's Interstate Access Tariff, FCC No. 1. Compensation for each pair of NNI ports will be calculated as follows: BellSouth will invoice, and CLEC-1 will pay, the total non-recurring and recurring charges for the NNI port. CLEC-1 will then invoice, and BellSouth will pay, an amount calculated by multiplying the BellSouth billed non-recurring and recurring charges for the NNI port by CLEC-1's PLCU.

6.7 Each Party agrees that there will be no charges to the other Party for its own subscriber's Permanent Virtual Circuit (PVC) rate elements for the local PVC segment from its Frame Relay switch to its own subscriber's premises. PVC rate elements include the Data Link Connection Identifier (DLCI) and Committed Information Rate (CIR).

6.8 For the PVC segment between the CLEC-1 and BellSouth Frame Relay switches, compensation for the PVC charges is based upon the rates in BellSouth's Interstate Access Tariff, FCC No. 1.

6.9 Compensation for PVC rate elements will be calculated as follows:

6.9.1 If CLEC-1 orders a VC connection between a BellSouth subscriber's PVC segment and a PVC segment from the BellSouth Frame Relay switch to the CLEC-1 Frame Relay switch, BellSouth will invoice, and CLEC-1 will pay, the total non-recurring and recurring PVC charges for the PVC segment between the BellSouth and CLEC-1 Frame Relay switches. If the VC is a Local VC, CLEC-1 will then invoice and BellSouth will pay, the total nonrecurring and recurring PVC charges billed for that segment. If the VC is not local, no compensation will be paid to CLEC-1 for the PVC segment.

6.9.2 If BellSouth orders a Local VC connection between a CLEC-1 subscriber's PVC segment and a PVC segment from the CLEC-1 Frame Relay switch to the BellSouth Frame Relay switch, BellSouth will invoice, and CLEC-1 will pay, the total non-recurring and recurring PVC and CIR charges for the PVC segment between the BellSouth and CLEC-1 Frame Relay switches. If the VC is a Local VC, CLEC-1 will then invoice and BellSouth will pay the total non-recurring and

recurring PVC and CIR charges billed for that segment. If the VC is not local, no compensation will be paid to CLEC-1 for the PVC segment.

6.9.3 The Parties agree to compensate each other for requests to change a PVC segment or PVC service order record, according to the Feature Change charge as set forth in the BellSouth access tariff BellSouth Tariff FCC No, 1.

6.9.4 If CLEC-1 requests a change, BellSouth will invoice and CLEC-1 will pay a Feature Change charge for each affected PVC segment.

6.9.4.1 If BellSouth requests a change to a Local VC, CLEC-1 will invoice and BellSouth will pay a Feature Change charge for each affected PVC segment.

6.9.5 The Parties agree to limit the sum of the CIR for the VCs on a DS1 NNI port to not more than three times the port speed, or not more than six times the port speed on a DS3 NNI port.

6.9.6 Except as expressly provided herein, this Agreement does not address or alter in any way either Party's provision of Exchange Access Frame Relay Service or interLATA Frame Relay Service. All charges by each Party to the other for carriage of Exchange Access Frame Relay Service or interLATA Frame Relay Service are included in the BellSouth access tariff BellSouth Tariff FCC No, 1.

6.10 CLEC-1 will identify and report quarterly to BellSouth the PLCU of the Frame Relay facilities it uses, per section 8.5.3 above.

6.11 Either Party may request a review or audit of the various service components, consistent with the provisions of section E2 of the BellSouth State Access Services tariffs or Section 2 of the BellSouth FCC No.1 Tariff.

6.12 If during the term of this Agreement, BellSouth obtains authority to provide interLATA Frame Relay in any State, the Parties agree to renegotiate this arrangement for the exchange of Frame Relay Service Traffic within one hundred eighty (180) days of the date BellSouth receives interLATA authority. In the event the Parties fail to renegotiate this Section 8 within the one hundred eighty day period, they will submit this matter to the appropriate State commission(s) for resolution.

7. Remote Access Server (RAS) Network Interconnection

7.1 The Parties agree that the Remote Access Server (RAS) is a specialized internet traffic concentration device designed to concentrate traffic to specific Internet Service Providers (ISPs), and as such is telecommunications equipment, but is not

an end office switch or equivalent facility, and thus is not subject to call transport and termination requirements under FCC Rule 51.711.

7.2 The Parties further agree that the purpose of the CLEC-1 RAS service offering is to move Internet traffic off the Public Switched Telephone Network (PSTN) terminating end office switch.

7.3 CLEC-1 shall configure CLEC-1's RAS device in such a manner as to eliminate the provisioning of enhanced services as defined by the Federal Communications Commission, such as but not limited to, user authentication, security, usage measurement, billing control and protocol conversion.

7.4 BellSouth agrees to deliver BellSouth originated and transit traffic intended for CLEC-1's end users to CLEC-1's RAS device pursuant to the terms and conditions of this Agreement.

7.5 NPA/NXX Code Assignment and Homing

7.5.1 CLEC-1 shall assign unique NPA/NXXs to CLEC-1's RAS specifically for Internet traffic routing purposes.

7.5.2 CLEC-1 shall home its NPA/NXX(s) on the BellSouth Tandem serving the Exchange Rate Center to which CLEC-1assigns CLEC-1's RAS NPA/NXX(s). The specified association between BellSouth Tandems and Exchange Rate Center Areas is defined in the LERG.

7.6 Direct Trunks Between CLEC-1's RAS And BellSouth End Offices

7.6.1 The Parties shall utilize direct end office to RAS trunks pursuant to the following conditions:

7.6.1.1 Tandem Exhaust - If a BellSouth tandem through which CLEC-1 is interconnected is unable to, or is forecasted to be unable to support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the BellSouth tandem capacity shortage and ensure completion of traffic between CLEC-1's and BellSouth's subscribers.

7.6.1.2 CLEC-1 agrees to order, install and retain direct end office to RAS trunks sufficient to handle actual and reasonably forecasted traffic exceeding a single DS1 of traffic per month.

7.6.1.3 CLEC-1 also agrees to order direct end office to RAS trunks within 30 days of a request by BellSouth if the end office traffic is exceeding or is forecasted to exceed a DS1 of traffic. If CLEC-1 does not order direct trunks within those 30 days, CLEC-1 agrees to pay to BellSouth, beginning the following month, the

common transport, tandem switching and tandem shared trunk port per minute of use rates reflected in Exhibit A of this Agreement for traffic delivered to CLEC-1's RAS via BellSouth's tandem switch until such direct trunks are activated.

7.6.1.4 CLEC-1 shall install additional capacity between BellSouth end offices and CLEC-1's RAS devices when overflow traffic between end offices and a RAS device exceeds or is reasonably forecasted to exceed a single DS1 of traffic per month.

7.6.1.5 The Parties may install direct end office to RAS trunks upon mutual agreement.

7.7 Trunks Between a RAS and Tandem Switches

7.7.1 Pursuant to the preceding paragraphs regarding direct trunks between a RAS and the originating end offices, the CLEC-1 agrees to order, install and retain trunking to the BellSouth tandem switch sufficient to handle actual and forecasted traffic volumes routed to CLEC-1's RAS via the BellSouth tandem.

7.7.2 CLEC-1 shall order and establish the necessary trunk groups to each BellSouth tandem switch on which CLEC-1 has homed CLEC-1 NPA/NXXs for transit traffic and traffic between CLEC-1 and BellSouth and as defined in the LERG.

7.7.3 A **RAS Point of Interface** is the physical telecommunications interface between BellSouth and CLEC-1's interconnection functions. It establishes the technical interface and point of operational responsibility. The primary function of the RAS Point of Interface is to serve as the terminus for the interconnection service.

7.7.3.1 At a minimum, CLEC-1 must establish a RAS Point Of Interface at each BellSouth access tandem serving an Exchange Rate Center to which CLEC-1 has assigned a RAS NPA/NXX in the LATA.

7.7.3.2 CLEC-1 agrees to establish, within four months of a request of BellSouth, a Point Of Interface at a BellSouth end office or tandem switch location where the traffic to CLEC-1's RAS has reached or is forecasted to reach one DS3 or more within six months.

7.7.3.3 The RAS Point of Interface has the following main characteristics:

7.7.3.3.1 It is a cross-connect point to allow connection, disconnection, transfer or restoration of service.

7.7.3.3.2 It is a point where BellSouth and CLEC-1 can verify and maintain specific performance objectives.

7.7.3.3.3 It is specified according to the interface offered in the tariff or interconnection Agreement (for example: for DS1 service, the FCC # 1 tariff specifies that the interface meets the technical specifications detailed in Generic Requirements GR-342-CORE, Issue 1, December 1995.)

7.7.3.3.4 The Parties provide their own equipment (CPE) to interface with the DS0, DS1, DS3, STS1 and/or OCn circuits on the customer premises.

7.7.4 The **RAS Point of Interconnection** is the trunk group termination location at which BellSouth delivers BellSouth originated traffic to the CLEC-1's RAS on CLEC-1's network. CLEC-1's requested Point of Interconnection shall also be used for the receipt of transit trunk groups for transit traffic at BellSouth Access and/or Local Tandems pursuant to the terms and conditions of this Agreement. Points of Interconnection established at the BellSouth Local Tandem apply only to local traffic and local originating transit traffic as defined by BellSouth.

7.7.5 Pursuant to the terms and conditions in this Agreement, BellSouth agrees to deliver BellSouth originating traffic to CLEC-1's RAS Points of Interface as established by CLEC-1. A Point of Interface may not necessarily be established at a Point of Interconnection.

7.7.6 CLEC-1 agrees to compensate BellSouth for transport and switching functions performed by BellSouth at the rates reflected in Exhibit A to this Agreement, including third party transit traffic, delivered to CLEC-1's RAS Point Of Interface.

7.7.7 Exhibit A Switching and Transport rates will apply when the BellSouth Rate Center with which CLEC-1 has associated its RAS NPA/NXX is not local, pursuant to BellSouth's flat rated Extended Area Service (EAS) A3 tariffs, to the BellSouth Rate Center in which CLEC-1 has placed CLEC-1's RAS device.

7.7.8 CLEC-1 shall not deliver switched access traffic to BellSouth via CLEC-1's RAS interconnection with BellSouth.

7.7.9 BellSouth shall not pay reciprocal compensation to CLEC-1 for traffic delivered to CLEC-1's RAS.

7.7.10 Compensation for Switched Access transit traffic shall be pursuant to the **Mutual Provision of Switched Access Service** section of this Agreement. Internet Protocol (IP) Telephony traffic shall be considered and treated as switched access traffic by both parties.

8. Operational Support Systems (OSS) Rates

8.1 BellSouth has developed and made available the following mechanized systems by which CLEC-1 may submit LSRs electronically.

LENS	Local Exchange Navigation System
EDI	Electronic Data Interface
TAG	Telecommunications Access Gateway

8.2 LSRs submitted by means of one of these interactive interfaces will incur an OSS electronic ordering charge as specified in the table below. An individual LSR will be identified for billing purposes by its Purchase Order Number (PON). LSRs submitted by means other than one of these interactive interfaces (mail, fax, courier, etc.) will incur a manual order charge as specified in the table below:

OPERATIONAL SUPPORT SYSTEMS	**AL, GA, LA, MS, SC**	**FL, KY, NC, TN**
OSS **LSR** charge, per LSR received from the CLEC by one of the OSS interactive interfaces	$3.50 SOMEC	$3.50 SOMEC
Incremental charge per LSR received from the CLEC by means other than one of the OSS interactive interfaces	See applicable rate element	$19.99 SOMAN

Note: In addition to the OSS charges, applicable discounted service order and related discounted charges apply per the tariff.

8.3 Denial/Restoral OSS Charge

In the event CLEC-1 provides a list of customers to be denied and restored, rather than an LSR, each location on the list will require a separate PON and, therefore will be billed as one LSR per location.

8.4 Cancellation OSS Charge

CLEC-1 will incur an OSS charge for an accepted LSR that is later canceled by CLEC-1.

Note: Supplements or clarifications to a previously billed LSR will not incur another OSS charge.

8.5 Network Elements and Other Services Manual Additive

The Commissions in Alabama, Georgia, Louisiana, Mississippi and South Carolina have ordered incremental manual non-recurring charges (NRC) for Network Elements and Other Services ordered by means other than one of the

interactive interfaces. These ordered Network Elements and Other Services manual additive NRCs will apply in these states, rather than the charge per LSR.

8.6 Threshold Billing Plan

8.6.1 The Parties agree that CLEC-1 will incur the mechanized rate for all LSRs, both mechanized and manual, if the percentage of mechanized LSRs to total LSRs **meets or** exceeds the threshold percentages shown below:

Year	Ratio: Mechanized/Total LSRs
2000	80%
2001	90%

The threshold plan will be discontinued in 2002.

8.6.2 BellSouth will track the total LSR volume for each CLEC for each quarter. At the end of that time period, a Percent Electronic LSR calculation will be made for that quarter based on the LSR data tracked in the LCSC. If this percentage exceeds the threshold volume, all of that CLECs' future manual LSRs will be billed at the mechanized LSR rate. To allow time for obtaining and analyzing the data and updating the billing system, this billing change will take place on the first day of the second month following the end of the quarter (e.g. May 1 for 1Q, Aug 1 for 2Q, etc.). There will be no adjustments to the amount billed for previously billed LSRs.

Basic Architecture

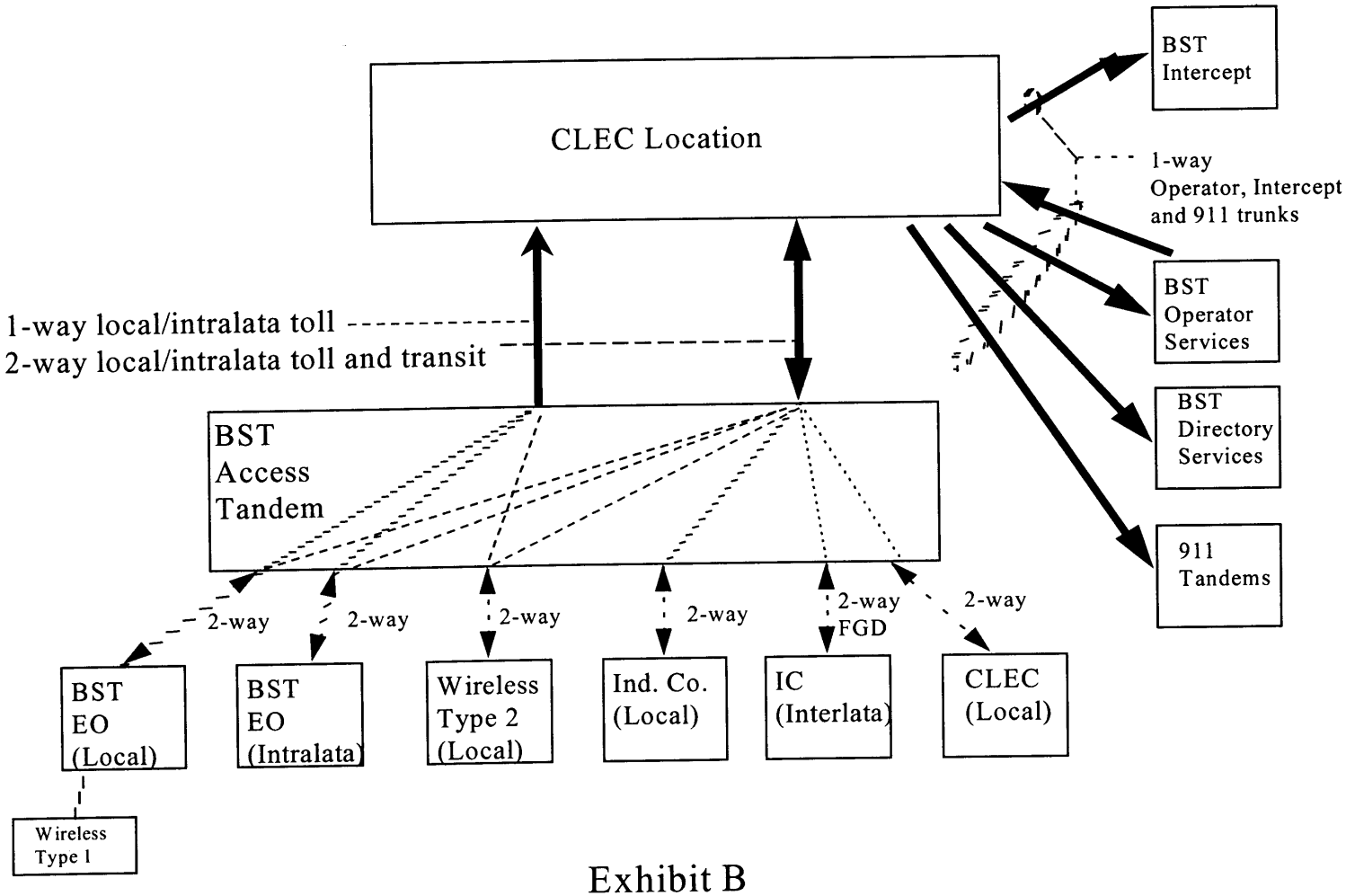


Exhibit B

One-Way Trunking Architecture

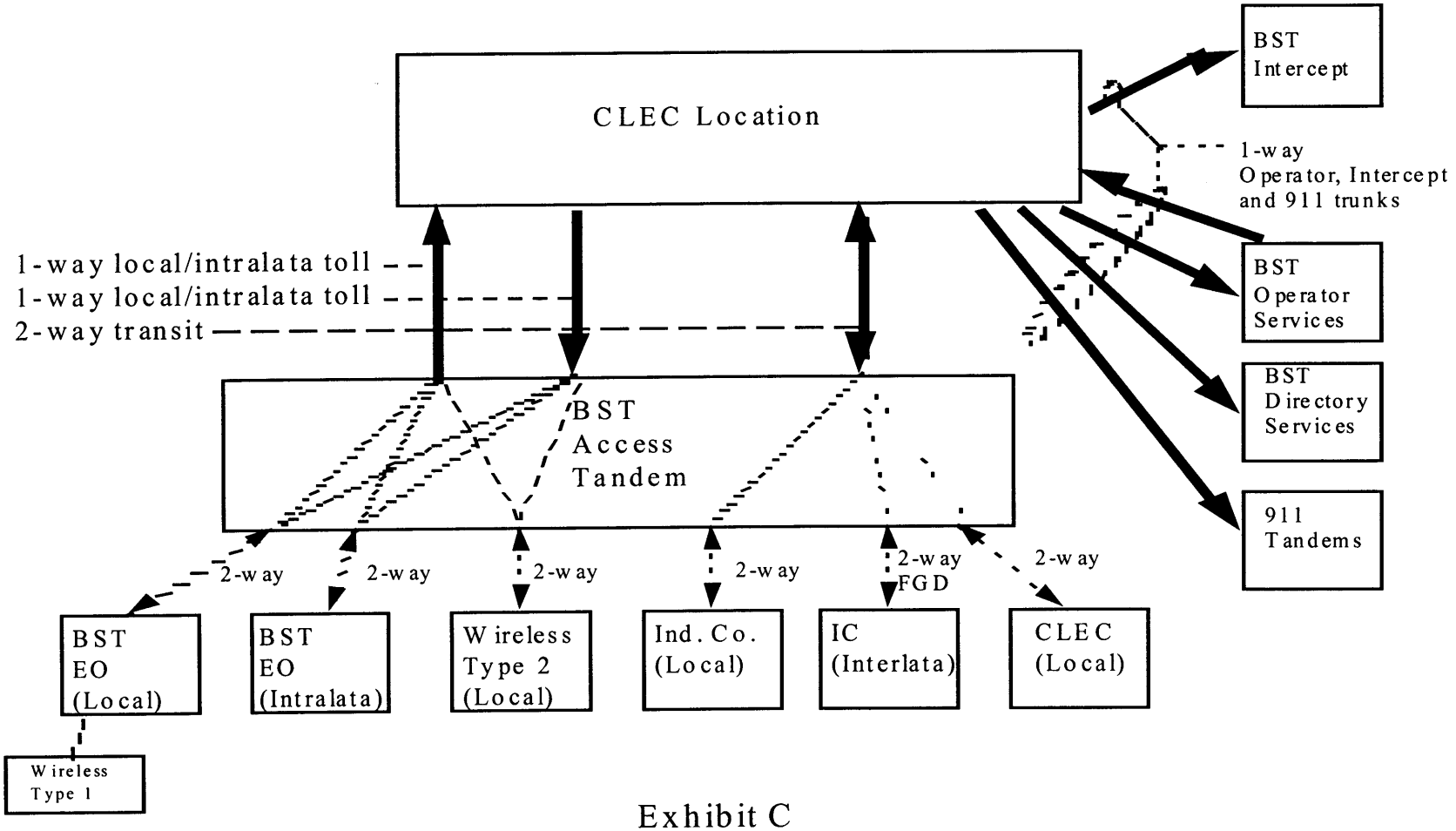


Exhibit C

Two-Way Trunking Architecture

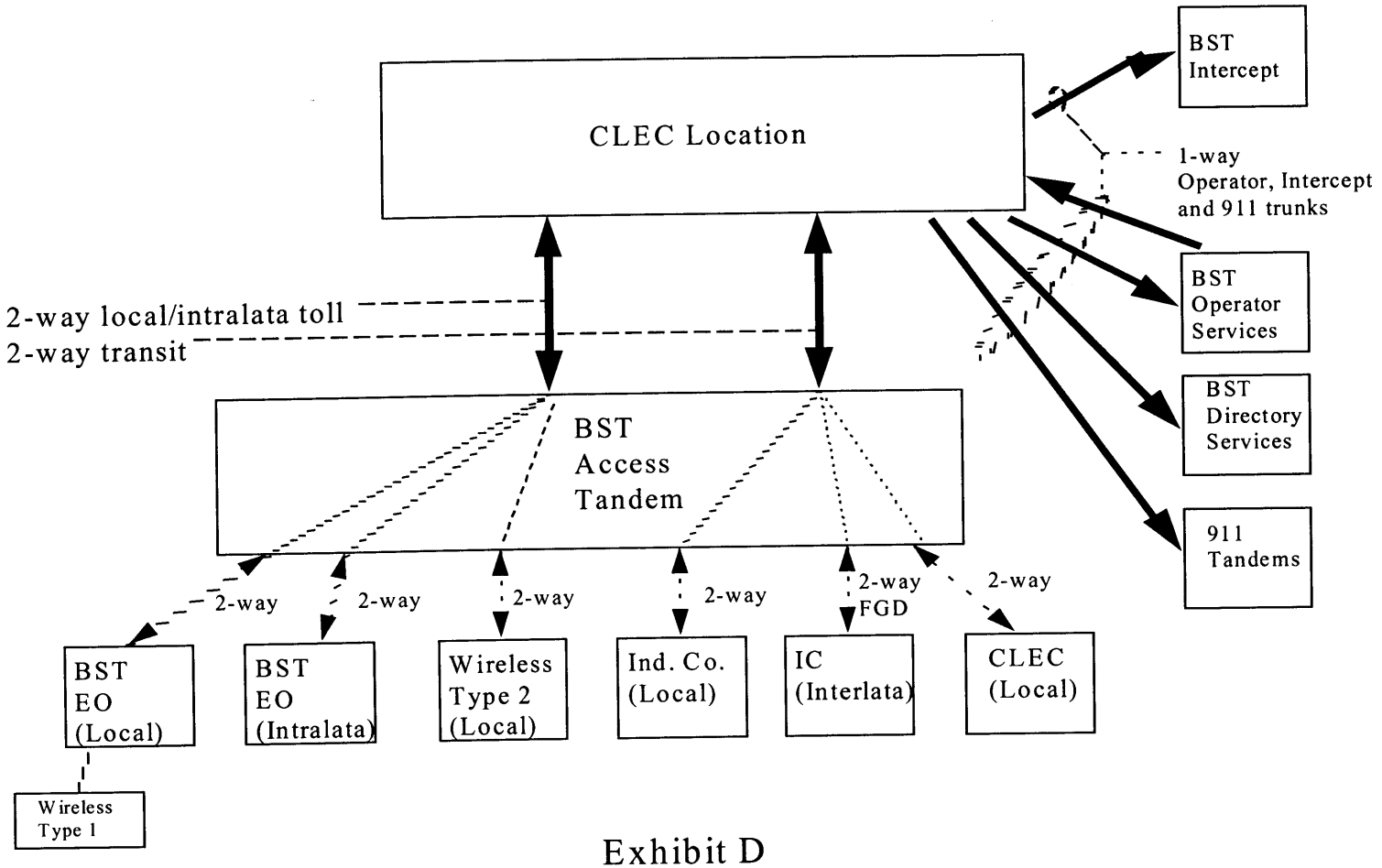


Exhibit D

SuperGroup Architecture

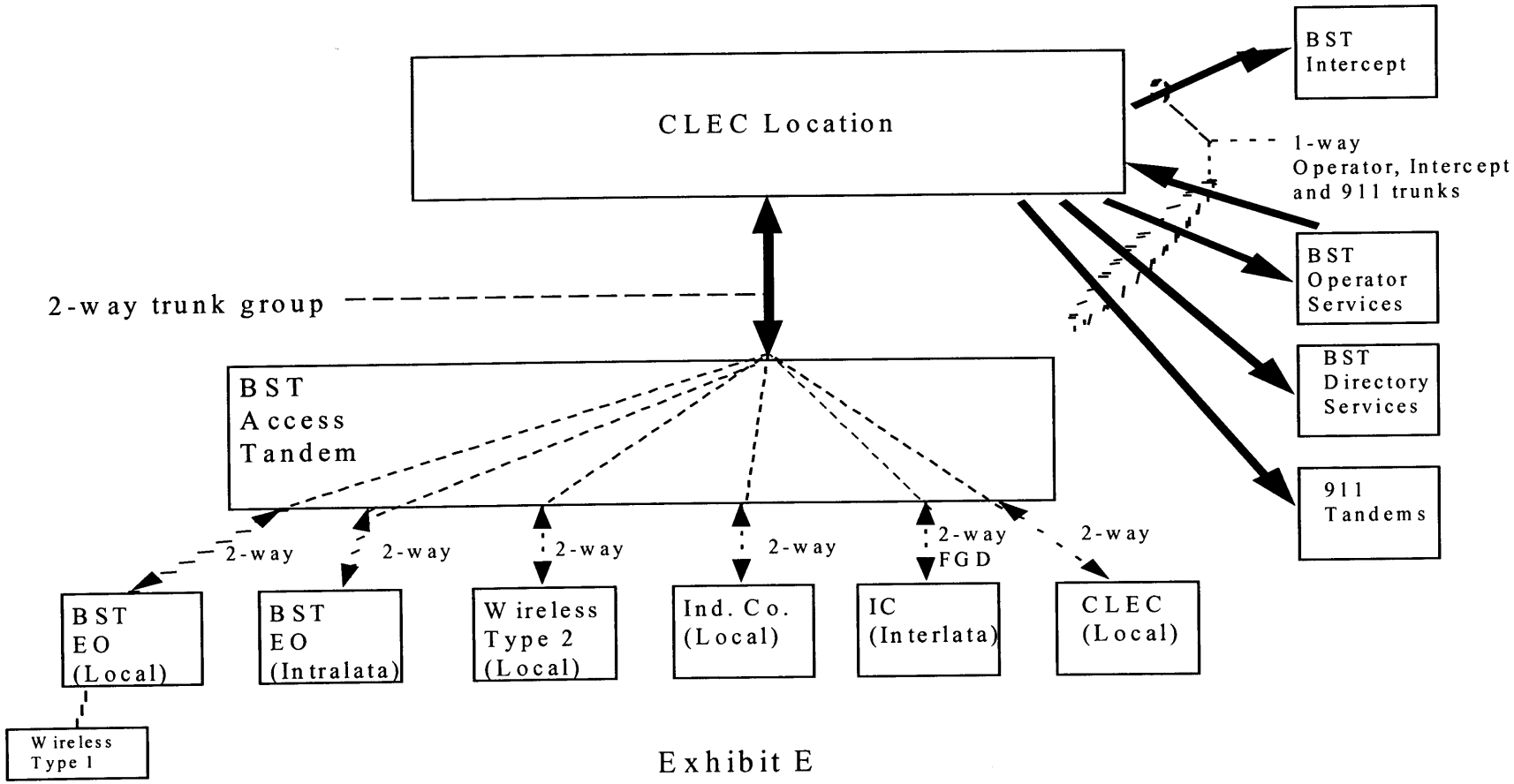


Exhibit E

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation for the use of BellSouth's circuit between the parties' frame relay switches.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation for the parties' use of frame relay NNI ports.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation for the PVC segment between the parties' frame relay switches.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation between the parties for local PVCs.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation between the parties for interLATA PVCs.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's proposed compensation between the parties for requests to change a PVC segment or PVC service order record.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all cost studies underlying BellSouth's charges for Frame Relay interconnection.

RESPONSE: BellSouth does not have any documents that are responsive to this request.

REQUEST: Produce any and all documents filed by BellSouth with the FCC, a state commission, or a court in which BellSouth challenges the requirement to provide access to the UNEs, including combinations of UNEs, identified by the FCC in the *UNE Remand Order*.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, BellSouth identifies the following list of Tennessee dockets as being responsive to this request.

TRA Docket No.	Title
98-00123	NextLink Arbitration
99-00377	ICG Arbitration
99-00430	DeltaCom Arbitration
99-00945	BlueStar Arbitration

REQUEST: Produce any and all documents filed by BellSouth with the FCC, a state commission, or a court in which BellSouth challenges the requirement to provide collocation as required by the FCC in the *Advanced Services Order*.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all documents filed by BellSouth with the FCC, a state commission, or a court challenging the ability of telecommunications carriers to assign NPA/NXX as they see fit.

RESPONSE: BellSouth does not have any documents responsive to this request.

REQUEST: Produce any and all documents filed by BellSouth with the FCC, a state commission, or a court challenging a telecommunications carrier's request for Frame Relay interconnection.

RESPONSE: BellSouth has no documents responsive to this request.

REQUEST: Produce copies of all arbitration decisions under Section 252 involving BellSouth in Tennessee.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive.

REQUEST: Produce any and all documents that refer or relate to BellSouth's provisioning of adjacent collocation.

RESPONSE: BellSouth objects to this request for production on the grounds that it seeks the production of documents that are on file with the Tennessee Regulatory Authority, are publicly available and therefore are obtainable from another source that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, see attached representative responsive documents.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 62

ATTACHMENT

ADJACENT COLLOCATION

SPECIFICATIONS

General Requirements:

1. The collocator is subject to and responsible for obtaining and conforming to all zoning or other permits that may be required by local governing authorities.
2. The area requested by the collocator must include sufficient space for maintenance access and emergency power.
3. The collocator is responsible for placing a structure to house their equipment within the designated space.
4. The collocator is responsible for placing cable and conduit to connect that equipment to the BST network. This is site specific and specifications will be designated by BST with the Application Response.
5. The collocator must also provide an additional conduit and AC power cable from their adjacent structure to the BST designated point at the Central Office building. . This is site specific and specifications will be designated by BST with the Application Response.
6. A cable splice is required at the Central Office vault unless Dielectric Fiber Cable is used.
7. Each collocator must have a separate duct entrance into the vault and the duct is leased to the collocator as part of the cable installation charges.
8. The entrance and riser cables, along with vault splices will be maintained by BST.
9. If unique splicing tools or testing equipment are required by the collocator, the collocator is responsible for providing the desired tools and equipment.
10. The interconnection point for smaller offices that do not have vaults will be determined at the sole discretion of the BST Outside Plant Engineer.
11. The collocator is solely responsible for providing the fiber optic facilities to the point of interconnection. (see # 1 above)
12. The collocator is not allowed to create physical entry points into manholes, such as, drilling holes in the manhole wall to place cable knockouts, lateral ducts, etc.
13. Collocators may request to rent pole or conduit space to facilitate placement of their facilities.
14. The collocator must provide BST with pre-terminated, dielectric, fire retardant cable to be placed from the vault splice to the designated central office bay.
15. The method of providing power to the collocator shall be at the discretion of BST as allowed by the local authority having jurisdiction and all applicable laws, codes, and standards apply. This is site specific and specifications will be designated by BST with the Application Response.
16. BST does not warrant or imply the availability of the standby power system.
17. The Adjacent structure may not interfere with access to existing or planned structures or facilities on the Central Office property.
18. All installation will be preformed by BellSouth approved venders. All construction will be performed in accordance with local, state, and national building codes.

19. Collocator's BellSouth Certified contractor shall bill collocator directly for all work performed for collocator pursuant to the Adjacent Arrangement and BellSouth shall have no liability for nor responsibility to pay such charges imposed by the Certified Contractor.
20. The collocator must have plans and specifications prepared by an Architect/Engineer registered in the state where work is to be performed.
21. Above ground structures must be pre-manufactured concrete huts that comply with Telcordia's Generic Requirements for Telecommunications Huts (GR 43-CORE).
22. Below ground structures must be controlled environment Vaults (CEVs) that comply with Telecordia's Generic Requirementz for Controlled Environmental Huts (GR 26-CORE).
23. Collocator shall provide a concrete pad, the structure housing the arrangement, HVAC, lighting, and all facilities that connect the structure (i.e. racking, conduits, etc.) to the BellSouth point of interconnection.
24. The materials added on all new construction shall be free of asbestos.
25. Collocator's Adjacent Arrangement design and construction must include all requirements bu local building officials, including but not limited to, additional parking, landscaping and fencing.
26. Collocator's Certified Contractor must restore the grounds to their original condition.
27. BellSouth maintains the right to review collocator's plans and specifications prior to construction of an Adjacent Arrangement.

ADJACENT COLOCATION

DESIGN AND CONSTRUCTION SPECIFICATIONS

Part 1 GENERAL REQUIREMENTS

1.1 GENERAL

This document provides the guidelines for the installation of Adjacent Arrangements to be utilized for collocation enclosures.

1. BellSouth will allow adjacent collocation arrangements ("Adjacent Arrangement") only where space within the Central Office is legitimately exhausted.
2. Adjacent Arrangements will be subject to technical feasibility.
3. The Adjacent Arrangement may not interfere with access to existing or planned structures or facilities on the Central Office property, egress from existing structures, or access to Central Office equipment access doors.
4. The collocator is responsible for determining if an Adjacent Arrangement is permitted by zoning and other applicable state and local regulations.
5. The Adjacent Arrangement shall be designed, procured and constructed by collocator in conformance with BellSouth's design and construction specifications and applicable regulation and code provisions of the jurisdiction having authority at that location.

1.2 Approved Contractors

All installation work will be performed by BellSouth approved vendors.

1.3 MOP

No work shall begin prior to the preparation and approval of a Method of Procedure (MOP). The MOP form is attached as Exhibit 1. The Collocator's contractors shall abide by all procedures and precautions listed on the MOP. BellSouth approved vendors are familiar with this document.

1.4 Welding Permit

No open flame shall be permitted on BellSouth property without first obtaining an approved Welding Permit. The Welding Permit form is attached as Exhibit 2. No welding will be permitted inside an equipment building.

1.5 Building Permit

The Collocator is responsible for obtaining all building permits required by local building departments. All Collocator Adjacent Arrangement construction will be performed in accordance with local, state, and national building codes.

ADJACENT COLOCATION
Design and Construction Specifications

1.6 Smoking
Smoking is not allowed in BellSouth facilities.

1.7 Field Conditions
Collocator is responsible for the field verification of all Adjacent Arrangement construction and for locating all underground utilities prior to starting construction.

1.9 Signage
Collocator shall install engraved plastic signage on the Adjacent Arrangement that lists name of the collocator, the emergency contact person (or persons), and the emergency contact number. Mount bottom of sign at 48" above finished floor.

1.10 Electrical standards
Collocator must comply with Adjacent Collocation - Electrical Standards. This document is attached as Exhibit 3.

2.1 DESIGN REQUIREMENTS

1. The collocator must have plans and specification prepared by an Architect/Engineer registered in the state where work is to be performed.
2. Above ground structures must be premanufactured concrete huts that comply with Telcordia's Generic Requirements for Telecommunications Huts (GR 43-CORE).
3. Below ground structures must be controlled environmental Vaults (CEVs) that comply with Telcordia's Generic Requirements for Controlled Environmental Huts (GR 26-CORE).
4. Where local building codes require enclosure specifications more stringent than BellSouth's standard specification, collocator and colloator's architect must comply with local building code requirements.
5. Collocator shall provide a concrete pad, the structure housing the arrangement, HVAC, lighting, and all facilities that connect the structure (i.e. racking, conduits, etc.) to the BellSouth point of interconnection.

6. Collocator's Adjacent Arrangement design and construction must include all requirements by local building officials, including but not limited to, additional parking, landscaping and fencing.
7. Any parking spaces taken away from BellSouth's use by the construction of the Adjacent Arrangement must be reinstalled at another location on the property unless specifically agreed to by the BST Facility Planner.

8. BellSouth maintains the right to review collocator's plans and specifications prior to construction of an Adjacent Arrangement(s).

3.1 CONSTRUCTION

1. Collocator must arrange with a BellSouth certified contractor to construct an Adjacent Arrangement structure in accordance with BellSouth's guidelines and specifications.
2. Where local building codes require enclosure specifications more stringent than BellSouth's standard specification, collocator and collocator's contractor must comply with local building code requirements.
3. Collocator's contractor shall be responsible for filing and receiving any and all necessary zoning, permits and/or licenses for such construction.
4. Collocator's BellSouth Certified contractor shall bill collocator directly for all work performed for collocator pursuant to this Agreement and BellSouth shall have no liability for nor responsibility to pay such charges imposed by the Certified Vendor.
5. The materials added on all new construction shall be free of asbestos.
6. Collocator's BellSouth certified contractor must restore the grounds to their original condition.

4.1 OPERATIONAL ISSUES

1. BellSouth may inspect the Adjacent Arrangement(s) following construction and prior to commencement to ensure the design and construction comply with BellSouth's guidelines and specifications.
2. BellSouth may require collocator, at collocator's sole cost, to correct any deviations from BellSouth's guidelines and specifications found during such inspection(s), up to and including removal of the Adjacent Arrangement, within five (5) business days of BellSouth's inspection, unless the Parties mutually agree to an alternative time frame.
3. Collocator must provide the local BellSouth building contact with two cards, keys or other access device used to enter the locked enclosure. Except in

cases of emergency, BellSouth shall not access collocator's locked enclosure prior to notifying collocator.

4. BellSouth shall allow Shared (Subleased) Caged Collocation within an Adjacent Arrangement pursuant to the terms and conditions set forth in Section 3.3 of the Collocation Agreement.

MOP Number 01

Method of Procedure (MOP)
For
BellSouth Telecommunications, Inc. (BST)

BST Order No:		Installation Supplier Order No:
Job Start Date:	Work Start Date:	Job Completion Date:
Installation Supplier Company/Phone:		
Subcontractor Company/Phone:		

Office CLLI code and address where job is performed:					
General description of work:					
MOP prepared by:		Title:		Date:	
Related MOP Numbers:					

Responsibility for supervision of this job is assigned to: (Type or Print)

		Job Supervisor	Work Phone	Pager	Emergency Number
	Installation Supplier				
	BellSouth Representative				

The undersigned authorize and approve the requirements stipulated in this MOP.

Installation Supplier:

(Name)	(Title)	(Date)
(Name)	(Title)	(Date)

BST Representative:

(Name)	(Title)	(Date)
(Name)	(Title)	(Date)

Circulation and Display of MOP

This job has been reviewed and agreement has been reached on the items included in this MOP. No changes may be made in this MOP without the approval of the Network Manager. **A copy of this MOP must be provided to the Network Manager (C.O. Supervisor) and be posted on the central office bulletin board or near main entrance of the central office.**

MOP Number 01

BellSouth Telecommunications Personnel

BellSouth management/non-management personnel connected with this job:

Name	Title	Responsibility	Telephone Work/Emergency

Related organizations phone numbers:

Network Reliability Center (NRC):	
(AL,LA,MS) Charlotte	557-2074
(FL) Charlotte	780-2074
(TN,KY) Nashville	557-2225
(NC, SC,GA except Atlanta) Nashville	780-2225
(ATLANTA) Nashville	(404) 780-2225

BellSouth Building Service Center (BSC) and Environmental Management:

(FL,GA,NC,SC)	780-2740
(AL,KY,LA,MS,TN)	557-6194

BellSouth Quality Assurance:	(404) 927-7318
Fax	(404) 876-3514

Emergency (if other than 911)

Police:	Fire:	Ambulance:

Installation Supplier/Subcontractor

Company Name	Address	Telephone

Installation Supplier Management/non-management personnel connected with this job:

Name	Title	Responsibility	Telephone Work/Emergency

MOP Number 01

A. Work Schedules, Conditions, and Approvals:

1. Shift start times are: day ____, evening _____, and night ____, unless arranged otherwise due to job conditions. Length of a shift is _____ hours including meals and breaks.
2. Power systems/equipment and other critical work activities that could jeopardize service shall be performed during the hours of _____ and _____.
3. Any additional work efforts that will be billed to BST must receive prior approval from the Capacity Manager.
4. If evening or night shift work activity is to be started or stopped, Network Operations must be notified 72 hours in advance.
5. Supplier must notify the NRC upon entry and exiting building when performing any work activity that has the possibility of affecting equipment or customer service. (See Page 2)

B. Summary of Major Work

What will be added, removed or modified and when will installation/acceptance tests and job verification start. Check mark denotes detailed MOP or step-by-step procedures required.

	Date		Work Operation and Equipment		Detail Req'd
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

Other existing equipment/circuits/services that may be impacted by this job are:

_____ _____
_____ _____
_____ _____

Hazardous materials associated with this job are:

_____ _____
_____ _____
_____ _____

Handbooks, technical documents, practices, and bulletins related to this MOP are:

_____ _____
_____ _____
_____ _____

C. Installation Supplier Assurance

1. All work will be completed in accordance with BellSouth requirements and workmanship standards published in TR 73503, 73508, 73519, and 73564.

D. Service Interruption

1. An Emergency Restoration Plan for all equipment/systems shall be submitted to and approved by Network Operations prior to beginning any work activity on equipment in the central office.

2. Each Plan shall provide information sufficient to restore service within a prescribed time frame. Information that shall be included in the Plan is identified below.

Emergency Restoration Plan

If any service degradation, equipment failure or outage occurs, the supplier must immediately notify the local Electronic Technician, Network Reliability Center, Network Manager and Area Manager in that order. (See page 2)

Sequence for escalating problem if service cannot be restored within _____.

Who	Title	Work/Emergency No.

Major services/systems/equipment/circuits that can be impacted and who can help.

Services/Systems/Equipment/Circuits	Qualified Personnel	Work/Emergency No.

Sequence of actions to be taken to eliminate the problem within the restoral time frame.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

MOP Number 01

3. If a service interruption occurs, immediate restoration of service is the joint responsibility of BST and installation supplier. Each shall immediately notify the other of the problem and proceed to implementing the Emergency Restoral Plan.

4. BST may suspend job until a service interruption or degradation condition is corrected.

5. All service interruption and degradation problems encountered must be reported by Installation Supplier to the BST Quality Assurance organization in writing within 24 hours after occurrence.

6. The written report shall include:
   a) Central Office Location
   b) Time and duration of occurrence
   c) Description of the equipment affected
   d) Nature of the occurrence
   e) Your name, company and contact number

E. Delivery, Storage and Staging of Equipment

1. All equipment shall be uncrated or opened by the installation supplier in a protected storage area designed by BST. A storage area key, if required, can be obtained from Network Operations. Any shortage shall be reported to _____.

2. Disposal of packing materials, and all plans/tools/materials for hoisting, hauling, and protecting equipment in the central office shall be approved by Network Operations.

3. Special requirements related to storing, staging, and/or moving equipment are:
   _____
   _____
   _____
   _____

F. Testing, Observations and Job Verification

1. All persons performing work in connection with this MOP must be aware of its location and content.

2. Installation supplier must notify Network Operations at least 72 hours prior to starting any testing.

3. On a daily basis, installation supervisor must notify Network Reliability Center on telephone number _____ when entering and leaving an unattended central office.

4. Monitoring and reacting to alarm indications related to equipment and circuits removed from service shall be performed jointly by the supplier and Network Operations and coordinated with the NRC.

5. The installation supplier shall test prior to and upon completion of this job all alarms related to equipment added/removed/modified/impacted by this MOP.

6. All fusing and fuse records for equipment added/removed/modified by this MOP shall be verified/updated upon completion of this job by installation supplier.

7. Fuses and jumpers shall be removed by Network Operations.

8. Before disconnecting or cutting any cables or wires associated with equipment, the installation supplier shall verify that they are not active, and obtain concurrence from Network Operations that the associated equipment has been made spare.

9. Special testing, observation and/or verification requirements for this job are:

_____
_____
_____

G. Safety, Security Requirements and BellSouth Rules

1. The following requirements and rules have been discussed with and concurred by the installation supplier as initialed. Refer to appropriate notes that follow for clarification.

Initial			Note
_____	a.	wearing safety glasses/goggles, protective/clothing/hard hats	_____
_____	b.	sign-in logs/wearing badges/securing area	_____
_____	c.	location of fighting equipment and fire exits	_____
_____	d.	use of flame retardant and static free material	_____
_____	e.	existing hazards/specific warnings (from walk through)	_____
_____	f.	condition/type/size of mechanical tools	_____
_____	g.	grounding/protection/calibration for electrical tools	_____
_____	h.	identification/storage/handling/disposal of hazardous materials	_____
_____	i.	special requirements protecting equipment/facilities	_____
_____	j.	location/use of employee conveniences (rest/lunch rooms, parking)	_____
_____	k.	housekeeping requirements, rules of conduct, use of phones	_____
_____	l.	location of power plants, distributing systems, and select circuits	_____
_____	m.	Use of insulated tools and protective covers	_____

Note	Clarification
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

MOP Number 01

The installation supplier shall maintain a log of the cable holes opened/closed, where, and on what dates/times. **At the end of each shift, the installation supplier must secure the cable holes per TR73503**. A Cable Hole List form is provided below for that purpose.

Cable Hole List

Cable Hole and Location	Date/Time Opened	Date/Time Closed

(Attach additional sheets if required)

H. Detailed Steps

When detailed procedural information or instruction is required for this MOP, the Detailed Steps form on the next page shall be used. The form shall be reproduced and completed in sufficient quantity to provide all detail needed to do the work completely and accurately.

The Detailed Steps shall be completed as specified in the order listed. No deviations are allowed unless prior authorization is received from Network Operations.

The Detailed Steps must include the following information:

1. Installation supplier shall insure that workers are aware of and follow the safety, security and telephone company rules identified above and defined on the following note pages.
2. Indication if step is a critical work activity. Information items 5, 6, 7, and 8 are mandatory for critical work activities.
3. Who is accountable for the completion of each step -- installation supplier, BST, or both.
4. What work action is to be performed? Work action must be a verb such as add, remove, apply, route, wire, connect, operate, adjust, test, observe, verify, etc.
5. Detailed step-by-step procedures (either listed or referenced), special test equipment or tools, input materials or resource needed to complete the work activity.
6. Name of person who will perform the step(s) and on what dates and times.
7. Special standards and expected output results.
8. At what steps, or where in the detailed procedure can work be safely stopped.
9. Date when a step or work activity is actually completed.
10. Initial of installation supplier and/or BST person who completed the step or work activity.

MOP Number 01

2	3 Resp		Detailed Steps		8	9	10 Initials	
			4	Work Action and Specific Equipment Involved				
Critical	Supplier	BST	5 6 7	Detailed Step -by-Step Procedures Who Will Perform and When Expected Standards and Results	Safe Stop	Date Compl	Supplier	BST
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MOP Number 01

I. Job Closure:

1. Upon job completion, installation supplier shall complete a Confirmation of Job Completion form and send it to _____.
2. If job is rescheduled or extended, a Notification of Revised Completion Date form shall be prepared by the Installation Supplier.
3. All work left outstanding by the installation supplier and all workmanship quality defects identified by BST, must be completed or corrected by the installation supplier within _____ days of the job completion date.
4. The installation supplier shall prepare a new MOP to complete all outstanding work and correct all defects in workmanship quality if requested by BST.
5. BST shall withhold final payment to the installation supplier until authorized by _____.
6. At job completion, the installation supplier shall remove all trash and excess material from BST premises.
7. At job completion, all documentation/materials due to BST shall be turned over to _____ by the installation supplier.
8. The installation supplier shall inform Network Operations 72 hours in advance as to when a final job completion walk through is desired.

The confirmation of Job Completion form must be forwarded no later than Monday following the completion date to the following personnel:

Capacity Manager:
Network Manager (C.O. Supervisor):

CONTRACTOR/VENDOR RESPONSIBILITIES REQUIRED BY P&SM

The following precautions must be taken when performing construction of service work around BellSouth facilities.

1. Call the BellSouth Network Reliability Center (NRC) and identify yourself, your company and the work you are to perform. Notification should be made immediately upon entering and exiting the building. Any contractor/vendor who does not make proper notification will be asked to leave the building.

2. Under no circumstances should a contractor/vendor let anyone into a telephone equipment area or telephone building unless he is working directly with the person or that person shows a proper telephone company identification badge.

3. Each contracted employee will carry a photo I.D. card with them. If necessary, a photo driver's license will work with a contractor/vendor provided list of workers.

4. Do not use electrical receptacles which are located on telephone equipment. Use only wall or column receptacles.

5. The use of Powder Actuated fasteners in Central Office buildings or occupied administrative buildings is forbidden.

6. When performing work in a Central Office where dust may be created, an anti-static, fire retardant plastic dust barrier should be used to isolate the dust from all telephone equipment. BST, pre-approved plastic sheeting shall be used. If the situation requires a full dust partition around the switch, be sure that the telephone equipment is properly ventilated, filtered and cooled.

7. The work area should be cleaned up at the end of each day. Under no circumstances should any combustible material be left in the work area overnight or when the need for that material is not part of that days work.

8. No welding or cutting operations, which use oxy-fuel gas or electric arc welding and cutting equipment, shall be allowed without a Welding or Cutting Permit from the Project Manager. The contractor shall prove knowledge of, and follow all procedures outlined in BellSouth Building Construction & Fire Safety Standards Section 18230, paragraph 2.11.B.8. Open flame operations such as soldering and brazing do not require a Welding or Cutting Permit. Proper supervision and portable fire extinguishment shall be in place while conducting operations involving open flame.

9. No photography is allowed in telephone equipment rooms.

10. Contractors should enforce all necessary safety precautions for their employees and subcontractors. contractors/vendors shall abide by all OSHA requirements, including but not limited to the use of personnel trained and qualified for the work to be performed.

11. Notify _____ and any affected personnel when any equipment is to be shut down or repaired/ replaced. This would include breakers, lights, heating, air conditioning, etc., except on normal routine maintenance. A separate MOP is required for the shut down of each piece of equipment.

12. Never touch or set anything against the power bus bars.

13. When working on the fire safety equipment, _____ is to be notified of exactly when the work begins and ends. Under no circumstances should the fire safety equipment be left in anything less than perfect working order. Notify the Company's Job Project Manager if standpipe system is to be shut down. The Project Manager will notify M&MPC and local jurisdiction as required. If working on the EWFDS, before leaving the building at the end of the workday, verify with NRC that they are not receiving any alarm or trouble signals from the EWFDS.

14. No smoking is allowed in any BellSouth Telecommunications facility.

15. No doors to telephone equipment rooms are to be propped open.

16. No door alarms are to be silenced except by the NRC. Contractor/vendor may ask the NRC to silence any audible alarms.

17. All flammable/combustible paints and oils should be sealed in original cans and stored in metal lockers in rooms with one-hour rated fire walls and good ventilation away from all heat sources. No paint or oil should ever be stored in a telephone equipment room or air handler room.

18. Do not bump, touch or lean anything against the telephone equipment. If the equipment is bumped, it should be reported immediately to the Project Manager. The Project Manager will notify the Network Representative.

19. When cleaning floors in telephone equipment rooms, precautions should be taken so that no dust is spread around the room.

20. No water or liquid of any type is to be splattered on the telephone equipment.

21. When working above the telephone equipment, the following precautions should be taken:

    a. Verify with Building Manager if allowable to leave membrane and plywood (as described below) overnight.

    b. A fire retardant/anti-static membrane must be used to cover the top of the telephone equipment located below where the work is to be performed. The ventilation of the telephone equipment should not be blocked.

    c. Carefully place 4'x8' plywood sheets of 1/2" minimum thickness on top of the equipment in such a manner as to ascertain that the cable supports and other structural members are supporting the weight entirely free of cabling.

    d. When using an electric hammer drill to drill the concrete slab above the telephone equipment, use the rubber cup provided by the tool manufacturer which seals off the drill to the slab thus picking up most of the dust. Use a HEPA vacuum at all times while the hammer is being used to pick up any dust that may escape.

    e. When using a standard electric drill to drill the concrete slab above the telephone equipment use a HEPA vacuum at all times at the point of slab penetration to pick up all dust that may be created.

22. All contracted employees should be properly instructed on these Methods of Procedure before working in the telephone buildings. If in doubt of any procedure, please ask the Building Manager or Project Manager.

23. Promptly inform the NRC and Project Manager of any alarms (fire alarm, etc.) generated by the work performed.

24. Make sure floor finish meets anti-slip requirements.

25. No spray painting is to be performed in telephone equipment rooms.

26. All contractors/vendors will be responsible for their subcontractors for following these Methods of Procedure.

27. When bidding work in telephone equipment areas, notify the proper Building Manager to make arrangements for building access to review the project work.

28. Any variations to these guidelines will be noted on the Job Notification Form.

29. Upon the completion of all work associated with components of the HVAC system or breakers protecting the HVAC system, the contractor/vendor shall verify HVAC operation. Also, the contractor/vendor will contact the BFMS Control Center at to check if any HVAC alarms are standing in once the work is completed. If any alarm is still standing in or if any part of the HVAC system is not operating, call the Building Service Center to report the problem.

30. BellSouth Network Reliability Center, Building Service Center (BSC) and Environmental Management, and BFMS ROC contact numbers by location:

Location	NRC	BSC	BFMS ROC
AL	557-2074 Option 1	557-6194	205-521-6539
FL	780-2074 Option 1	780-2740	205-521-6539
GA except Atlanta	780-2225 Option 1	780-2740	205-521-6539
Atlanta, GA	404-780-2225 Option 1	780-2740	205-521-6539
KY	557-2225 Option 1	557-6194	205-521-6539
LA	557-2074 Option 1	557-6194	205-521-6539
MS	557-2074 Option 1	557-6194	205-521-6539
NC	780-2225 Option 1	780-2740	205-521-6539
SC	780-2225 Option 1	780-2740	205-521-6539
TN	557-2225 Option 1	557-6194	205-521-6539

31. Paragraph F.7 on Page 6 of 9 applies to telecommunications equipment only.

SIGNED _____ **COMPANY** _____

DATE _____

PROPERTY & SERVICES MANAGEMENT
METHOD OF PROCEDURE
FOR WORKING IN TELEPHONE EQUIPMENT AREAS

5.07.01 GENERAL

The Method Of Procedure (MOP) should be completed when Property & Services Management work has the potential of disrupting Network Service of administrative office operations, or whenever the power, HVAC of fire and life safety systems need to be turned off.

The MOP should be completed and concurred upon by the Contractor/personnel actually performing the work. The MOP should be concurred upon by the Project Leader responsible for the work and by the appropriate Client associate and/or clients possibly being impacted by the work.

This Method Of Procedure (MOP) is adapted from the Network Method of Procedure described in BSP Section 790-100-421BT & in TR 73503 Section 19.

The Attached form shall be used to construct the MOP. Any references to the MOP in this document will be considered the same as references to Exhibit A.

Attachment 1 to the standard TR73503 form is a list of the responsibilities of the contractor when working in BST facilities. These responsibilities should be reviewed with the contractor and a copy of Attachment 1 should be signed by the Contractor prior to the Contractor beginning work. The procedures should be covered with the contractor at the Pre Construction Meeting of any construction projects.

5.07.02 Typical Work Requiring a MOP

The following work shall require preparation of a MOP and completion of the MOP form:

5.07.02.01

AC power activities that will require a power interruption or that could cause a power interruption to the following equipment:

a) Breakers or circuits that serve AC powered telecommunications equipment
b) DC power plant rectifiers and/or inventors
c) UPS plants
d) Cable Dehydrators
e) Air conditioning serving telephone equipment areas
f) Tower lights
g) Client computers
h) Client personnel
i) Occupant areas during occupied hours
j) Any system serving occupied areas during occupied hours
k) Any of the above equipment during an electrical system test and/or inspection

5.07.02.02

Air conditioning activities that will require operational interruptions or that could cause an operational interruption associated with:

a) Major repairs or equipment replacement during cooling season

b) Ductwork rearrangements and removals
c) Piping changes
d) Any Air Conditioning service interruptions to telephone equipment
e) Any A/C interruption to occupied area during occupied hours
f) Any A/C interruptions to client equipment rooms
g) Major repairs or changes to the Building Automation System

5.07.02.03

Miscellaneous Work:

a) Removal of contaminants/asbestos
b) Working above telephone equipment
c) Cutting/welding in telephone equipment room or occupied areas
d) Wet coring of holes in telephone equipment areas
e) Demolition work with potential for contamination of telephone equipment
f) Work affecting security and fire alarm and protection of the building

5.07.03 Typical Definitions of Network Terms

BST Order Number: Specific or Routine (Job Order) Number
Installation Supplier Order Number: Work Order
Installation Supplier: P&SM Contractor or Vendor or Vendor – Project Leader. Note that for Programs, the Program contractor would be the Installation Supplier and their subcontractors would have to be identified as necessary.
CLLI: Common Language Location Identifier used by Network. Each central office has one or more CLLI codes. The use of a GLC will be adequate unless otherwise required by Network; if so, politely request Network to provide the appropriate CLLI for the given GLC if the CLLI is unknown.

WELDING OR CUTTING PERMIT

Contractor:_____ Valid From: _____

Work Location: _____ To: _____

CONDITIONS TO BE FOLLOWED

1. Work area shall be kept free of all combustible material.
2. Fire-retardant tarpaulins are acceptable and shall be used.
3. All welding and cutting equipment shall be kept outdoors whenever possible.
4. If acetylene and oxygen tanks are required indoors, they shall be kept as far from the actual work location as possible.
5. All welding and cutting equipment shall, wherever practical, be removed from the building daily.
6. All equipment such as cables, hoses, regulators, etc., shall be in good condition.
7. A fire watch furnished by the contractor, consisting of at least one man with no other assigned duties, shall be posted at all times to stand by and observe area for any potential hazards while welding or cutting is being done.
8. The fire watch shall be equipped with suitable personal eye protection and fire extinguishers furnished by the contractor as follows:

Work Area	Type of Extinguisher	Quantity Required
Telecommunication Equipment, Power & Computer Spaces	CO_2 (10B:C) or Halon/Clean Agent (1A:10B:C)	2 2
Other Spaces	Water (2A) & CO_2 (10B:C)	1 1

9. Two inspections of the work area shall be made upon completion of the welding/cutting operation. The first shall be made ½ hour after completion of work followed by another inspection ½ hour later.

I hereby agree to perform the necessary welding or cutting operations as outlined in this permit.

_____ _____

Contractor's Signature Date

The work area involved has been inspected by a Company representative, and all requirements outlined have been explained.

_____ _____

Approved by Date

Copy to:
1 Local File
1 Contractor

16262

ELECTRICAL STANDARDS – ADJACENT COLOCATION AC POWER AND GROUNDING

CONTENTS

16262

ELECTRICAL STANDARDS – ADJACENT COLOCATION AC POWER AND GROUNDING

PART 1 GENERAL

1.01 SCOPE

A. This standard describes in general terms the methods to be used to provide ac power to a CLEC's adjacent enclosure and provide associated grounding.

1. The grounding materials apply to ground rods, external and/or buried grounding conductors, connections to ground rods, and connections to BellSouth Telecommunications grounding electrode systems where applicable. This document does not address grounding requirements inside the CLEC's enclosure. Also, this document does not address grounding of the telecommunications equipment and network. Furthermore, grounding requirements for the ac power service or feeder or branch circuit are not covered in this document but are covered by other BellSouth documents used by BellSouth's commissioned design firm and contractors.
2. This standard is based upon BellSouth Telecommunications as well as the engineering design firms and contractors working on its behalf designing and constructing ac power feeds to the CLEC's adjacent enclosure.
3. A general rule of thumb is that feeding ac power to a CLEC's adjacent enclosure involves many of the same principals as feeding ac power to a condensing unit or other externally located infrastructure equipment. As such, this standard will not address conduit, wire and cable, boxes, grounding, supporting devices, or other requirements associated with providing the necessary ac power feed. Therefore, the ac power service or feeder or branch circuit are covered only in general terms in this document but detailed component design and construction details are covered by other BellSouth documents used by BellSouth's commissioned design firm and contractors.

B. All adjacent colocation CLEC's engineering, installation, and operations shall comply with or exceed the minimum conditions of this standard along with the requirements and recommendations of the manufacturers' specifications and all applicable laws, codes, and standards.

C. All BellSouth Telecommunications' engineering, installation, and operations shall comply with or exceed the minimum conditions of these standards along with the requirements and recommendations of the manufacturers and all applicable laws, codes, and standards.

D. Where the CLEC must bond their grounding electrode to the central office grounding electrode such as the ring ground, the local Manager – Electrical Systems in P&SM and Transmission Engineering Manager in Network shall be notified as early as possible.

E. Fine Print Notes (FPN) may be included either for recommendations that are not required or for additional explanation.

1.02 RELATED SECTIONS

A. The design engineer shall reference or specify other necessary sections and any modifications necessary.

B. For work done by BellSouth Telecommunications P&SM or its contractors or commissioned design firm, the latest issue of applicable Master Construction Specifications and Building

Construction and Fire Safety Standards shall apply. Where there is a discrepancy, the document with the latest issue date shall supercede.

1.03 REFERENCES

A. IEEE 837 - IEEE Standard for Qualifying Permanent Connections Used in Substation Grounding.

B. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (International Electrical Testing Association).

C. NFPA 70 - National Electrical Code.

D. NFPA 30 – Flammable and Combustible Liquids Code

E. NFPA 37 – Installation and Use of Stationary Combustion Engines and Gas Turbines

F. NFPA 54 – National Fuel Gas Code

G. UL 1008 - Automatic Transfer Switches

H. UL 1449 – Transient Voltage Surge Suppressors

I. In addition to the latest edition and addenda of the above, applicable requirements of all OSHA, FCC, EPA and any legally required standards, codes, and regulations are adopted as part of this standard. Where BellSouth standards differ from any of these References and adopted standards, the more stringent of the two shall be followed within legal requirements.

1.04 SUBMITTALS FOR CLOSEOUT

A. Project Record Documents: Record actual locations of enclosures and associated structures or enclosures, external grounding components, buried conduit, and grounding electrodes. Submit diagrams with locations and dimensions of all buried systems. Submit photographs taken before earth coverage of buried systems. Photographs shall include all buried connections, including the bonding conductors to the central office ring ground and connections to buried pipes, conduits, and rod electrodes. Submit one photograph per new rod electrode showing connections to the new rod electrodes.

B. BellSouth Telecommunications Manager - Electrical Systems and Transmission Engineering written approval where CLEC's grounding electrode system, if any, is bonded to BellSouth Telecommunications central office grounding electrode system. Do not cover buried systems prior to inspection by BellSouth or its representative. Contact local Manager - Electrical Systems three weeks prior to desired inspection to coordinate time of inspection.

C. The submittal requirements apply to the CLEC or its contractor or design firm for components installed by the CLEC or its contractor or design firm. The submittal requirements apply to BellSouth Telecommunications or its contractor for components installed by BellSouth Telecommunications or its contractor.

1.05 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

1.06 REGULATORY REQUIREMENTS

A. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated for grounding materials covered by this standard. Listed and classified by a nationally recognized testing laboratory acceptable to the authority having jurisdiction as suitable for the purpose specified and indicated for all materials except grounding materials covered by this standard.

1.07 POWER SERVICE

A. The method of providing power to the CLEC shall be at the discretion of BellSouth Telecommunications as allowed by the local authority having jurisdiction and all applicable laws, codes, and standards.

B. The choice of commercial power supplier, including but not limited to generation, transmission, distribution, meter reading, billing, or other associated products and services is BellSouth's. BellSouth should exercise caution so that in no case should any arrangement jeopardize this choice where such choice exists or jeopardize such choice in the future or jeopardize BellSouth's position to negotiate or contract for such products and services.

C. BellSouth should make the CLEC aware of the nominal system voltage class of the feeder or branch circuit that will be provided.

D. The preferred method is to provide an ac power branch circuit or feeder to the CLEC's enclosure from BellSouth Telecommunications central office distribution system.

1. The preferred central office distribution method is to provide the feed from an essential source if it is available, i.e., a source that has generator or other standby power.

   a. This essential source typically would be served from it's commercial power source.
   b. In times of loss of commercial power, maintenance, or other business reason of BellSouth, the essential source may be fed from BellSouth Telecommunications' standby power source or by both commercial power and the standby power source operating in parallel.

2. Where standby power and associated distribution is not available, the feeder or branch circuit would be supplied from a non-essential source, i.e., a source served by only one supply, typically commercial power.

3. Where BellSouth Telecommunications is providing a feeder or branch circuit to serve the CLEC's enclosure, the CLEC shall **not** bond the neutral to the ground conductors.

4. BellSouth Telecommunications may interrupt ac power for inspection and testing of the electrical distribution system, construction or repairs to the electrical distribution system, or for other business reasons. Typically, BellSouth Telecommunications relies upon its battery reserve during such events to power telecommunications equipment. The CLEC should be aware of this and may desire to provision battery reserve capabilities similar or equivalent to those of BellSouth Telecommunications.

F. The preferred alternate method for supplying ac power to the CLEC's enclosure is to permit the commercial power supplier to serve the CLEC's enclosure from a drop or lateral downstream of the power utility's meter for BellSouth.

1. In this case, the CLEC's enclosure will have a distinct Service as defined by the 1999 National Electrical Code. As such, any neutral must be properly bonded to ground in accordance with the National Electrical Code at the service entrance equipment.

2. This power source will not have standby power from BellSouth Telecommunications.

3. The location of the CLEC's Service Point and Service Conductors and the power suppliers Service Drop or Service Lateral or other Service means shall be at the discretion of BellSouth Telecommunications.

4. The choice of a Service Drop, Service Lateral, or other service means shall be at the discretion of BellSouth Telecommunications.

5. If a transformer is required, BellSouth Telecommunications shall approve the location of the transformer. BellSouth Telecommunications shall be compensated for the property for the transformer. BellSouth Telecommunications may, if it desires, purchase the transformer.

G. The second alternative method for supplying ac power to the CLEC's enclosure is to have the commercial power supplier serve the enclosure directly.

1. In this case, the CLEC's enclosure will have a distinct Service as defined by the 1999 National Electrical Code. As such, any neutral must be properly bonded to ground in accordance with the National Electrical Code at the service entrance equipment.

2. This power source will not have standby power from BellSouth Telecommunications.

3. The location of the CLEC's Service Point and Service Conductors and the power suppliers Service Drop or Service Lateral or other Service means shall be at the discretion of BellSouth Telecommunications.

4. The choice of a Service Drop, Service Lateral, or other service means shall be at the discretion of BellSouth Telecommunications.

5. Where BellSouth Telecommunications must provide ac power and this method is chosen by BellSouth, BellSouth should pursue terms with the power supplier that are favorable. This may or may not include unmetered service for smaller loads or predictable loads.

6. Where BellSouth Telecommunications must provide ac power and this method is chosen by BellSouth and a transformer is required, BellSouth Telecommunications shall approve the location of the transformer. BellSouth Telecommunications shall be compensated for the property for the transformer. BellSouth Telecommunications may, if it desires, purchase the transformer.

H. It is not the intent of this document to imply or state that the CLEC may get their own power service from a commercial power supplier. However, if future contracts or regulations permit or require such, the following shall apply:

1. The CLEC's enclosure will have a distinct Service as defined by the 1999 National Electrical Code. As such, any neutral must be properly bonded to ground in accordance with the National Electrical Code at the service entrance equipment.

2. This power source will not have standby power from BellSouth Telecommunications.

3. The location of the CLEC's Service Point and Service Conductors and the power suppliers Service Drop or Service Lateral or other Service means shall be at the discretion of BellSouth Telecommunications.

4. The choice of a Service Drop, Service Lateral, or other service means shall be at the discretion of BellSouth Telecommunications.

5. Such service shall in no way jeopardize BellSouth's choice or future choice of power suppliers and suppliers of associated products and services.

6. If laws or directives or contracts permit the CLEC to get their own power from the commercial power supplier and a transformer is required, BellSouth Telecommunications shall approve the location of the transformer. BellSouth Telecommunications shall be compensated for the property for the transformer.

I. BellSouth will not be responsible for any use made by the CLEC, its contractors, vendors, or assigns, of the ac power service or feed and the CLEC will indemnify and hold BellSouth and its employees, contractors, vendors, and assigns harmless from any and all claims of personal injuries, fatalities, or property loss and alleged liability of any kind arising directly or indirectly, in whole or part, from the operation or maintenance of the consumer's equipment or facilities or from the failure or poor power quality of such service or feed including standby capabilities. BellSouth may terminate or modify this service or electrical feed at any time as required by law.

J. The CLEC will not test or maintain any portions of the service or feed on the BellSouth or power supplier side of their Service Point.

1.08 POWER EQUIPMENT

A. All of the CLEC's power and distribution equipment shall comply with the requirements and references of this standard.

B. The CLEC may install a UL1449 listed Transient Voltage Surge Suppressor (TVSS). If their power is from a feeder or branch circuit and not the commercial power supplier, this TVSS shall not bond neutral and ground. If their power is from the commercial power supplier, whether from BellSouth or directly with the power supplier, the TVSS may bond neutral and ground.

FPN: It is advisable that a registered professional engineer specify the TVSS for the CLEC.

FPN: If the CLEC has ac service from a commercial power supplier whether in BellSouth's name or not instead of from a feeder or branch circuit of BellSouth Telecommunications central office distribution system, it is advisable that the CLEC have a UL 1449 listed Transient Voltage Surge Suppressor.

C. The CLEC's enclosure shall have a service disconnecting means requiring no more than six operations of the hand for the CLEC's employees or contractors to disconnect power. This requirement shall apply even if BellSouth Telecommunications is providing a feeder or branch circuit from its central office distribution system.

1.09 STANDBY POWER

A. Where BellSouth Telecommunications provides a feeder or branch circuit from an essential source, BellSouth does not warrant or imply the availability of the standby system.

B. It is not the purpose or intent of this standard to determine if the CLEC can provide their own stationary standby generator for their enclosure. Should the CLEC be permitted to do so, BellSouth standards must be followed.

1. All BellSouth environmental practices must be followed. It is not the intent of this document to address details of environmental practices.

2. All BellSouth Fire Safety standards must be followed. It is not the intent of this document to address details of fire safety practices. General requirements follow:

a. NFPA 37 – Installation and Use of Stationary Combustion Engines and Gas Turbines

b. NFPA 30 – Flammable and Combustible Liquids Code

c. NFPA 54 – National Fuel Gas Code

d. Local jurisdiction approval and permits shall be obtained to assure that the local Fire Inspector or Fire Marshall has reviewed plans prior to construction.

e. BellSouth Telecommunications shall dictate the location of any generator sets and associated fuel tanks and piping systems due to our exposure to vapors or exhaust from unprotected openings.

f. Gasoline tanks and engines are highly discouraged and must be protected within a two hour fire rated compartment.

g. No LPG fuel shall be stored inside the central office.

3. Either a manual transfer switch or a UL 1008 listed Automatic Transfer Switch shall be used for transfer between normal and standby generator sources. The transfer switch shall have a positive mechanical interlock to prevent to connection of both sources together.

C. It is not the purpose or intent of this standard to determine if the CLEC can provide their own portable standby generator for their enclosure. Should the CLEC be permitted to do so, BellSouth standards must be followed.

1. All BellSouth environmental practices must be followed. It is not the intent of this document to address details of environmental practices.

2. All BellSouth Fire Safety standards must be followed. It is not the intent of this document to address details of fire safety practices. General requirements follow:

a. NFPA 37 – Installation and Use of Stationary Combustion Engines and Gas Turbines

b. NFPA 30 – Flammable and Combustible Liquids Code

c. NFPA 54 – National Fuel Gas Code

d. Local jurisdiction approval and permits shall be obtained to assure that the local Fire Inspector or Fire Marshall has reviewed plans prior to construction.

e. BellSouth Telecommunications shall dictate the location of any generator sets and associated fuel tanks and piping systems due to our exposure to vapors or exhaust from unprotected openings.

f. Gasoline tanks and engines are highly discouraged and must be protected within a two hour fire rated compartment. Exception: Engines and their engine mounted tanks that do not exceed the capacity limits as specified in the latest issue or addendum NFPA 37 (25 gallons in the 1998 issue).

g. No LPG fuel shall be stored inside the central office.

3. A power transfer switch shall be provided for use of the portable standby generator.

a. The transfer switch shall be located exterior to the CLEC's enclosure unless otherwise directed in writing by BellSouth Telecommunications.

b. The transfer switch shall have positive external and conspicuous indication of its position. Position labeling shall be clearly understood. Labeling should basically indicate if the switch is in the normal, alternate, or off position.

c. The transfer switch shall meet local commercial power supplier requirements.

FPN: Often, power utility personnel will not attempt to restore service where they may be exposed to a backfeed from a portable generator.

d. The transfer switch shall have a pin and sleeve type portable generator connector.

e. FPN: As of the original issue date of this standard, BellSouth Telecommunications uses power transfer switches from RELTEC.

1.10 AC POWER GROUNDING AND ENCLOSURE GROUNDING

A. Whether BellSouth Telecommunications is providing a feeder or branch circuit or if the CLEC's ac power is coming from a commercial power supplier provided by BellSouth and not the CLEC, BellSouth's commissioned deign engineer shall assure that all ac power grounding to the CLEC's enclosure or Service Point is in accordance with BellSouth Telecommunications' latest standards and Master Construction Specifications.

B. If the ac power is from a BellSouth Telecommunications central office distribution system feeder or branch circuit, then the CLEC's ac power is not a Service as defined by the National Electrical Code. The neutral and ground shall not be bonded. However, if a transformer is installed in the CLEC's enclosure or outside prior to the CLEC's enclosure, a main bonding jumper between neutral and ground shall be installed per National Electrical Code requirements for derived services.

C. If the ac power is from the commercial power supplier, then the CLEC's ac power is a Service as defined buy the National Electrical Code. The neutral and ground shall be bonded with a Main Bonding Jumper.

D. If there is a transfer switch and it does not switch the neutral, then the standby generator neutral and ground shall not be bonded.

E. If there is a transfer switch and it does switch the neutral, then the standby generator neutral and ground shall be bonded with a main bonding jumper.

F. If the ac power is from the commercial power supplier, then the CLEC's ac power is a Service as defined buy the National Electrical Code. The CLEC shall install a grounding electrode.

G. If the CLEC's enclosure has a grounding electrode, whether required or installed at the CLEC's discretion, additional grounding requirements may exist. If that grounding electrode is within six horizontal feet of the central office grounding electrode system, including the ring ground where it exists, the enclosure grounding electrode and the grounding electrode system shall be bonded together with a buried conductor.

H. See Part 2 for Grounding Material and Connection Requirements external to the CLEC's enclosure.

PART 2 GROUNDING MATERIAL AND CONNECTION REQUIREMENTS

FPN: These grounding materials apply to ground rods, external and/or buried grounding conductors, connections to ground rods, and connections to BellSouth Telecommunications grounding electrode systems. This document does not address grounding requirements inside the CLEC's enclosure. Also, this document does not address grounding of the telecommunications equipment and network. Furthermore, grounding requirements for the ac power service or feeder or branch circuit are not covered in this document but are covered by other BellSouth documents used by BellSouth's commissioned design firm and contractors.

2.01 ROD ELECTRODES

A. Material: Copper-clad steel.

B. Diameter: 5/8 inch minimum.

C. Length: 8 feet standard continuous and longer. Sectional rods shall have an uppermost section of at least 8 feet in length and sections shall be connected by high strength bronze couplers.

2.02 BURIED COMPRESSION CONNECTORS - IN EARTH OR CONCRETE

A. Manufacturers:

1. Thomas & Betts.
2. Burndy.
3. Substitutions: As permitted.

B. Material: high conductivity wrought copper.

Note: the use of aluminum compression connectors is prohibited.

C. Description: Compression connectors approved by Underwriters Laboratories for direct buried applications. The connectors shall conform to IEEE 837 and be suitable for the materials to be connected; connectors suitable for stranded conductors only shall not be used on solid conductors or ground rods. Dual element connectors may have an integral intermediate bonding conductor as with Burndy YGL-C or YGLR-C or similar connectors. The intermediate bonding conductor shall be have a minimum cross sectional area equivalent to 2 AWG bare copper (minimum 0.258" diameter) and a minimum bending radius of 0.3".

D. Pre-crimp dies: When connecting compression connectors to rod electrodes, pre-crimps are required even if not required by the manufacturer. Pre-crimp dies shall be by the same manufacturer as the connector and shall be designed for pre-crimping rod electrodes to prevent rotation.

2.03 BURIED, ABOVE GRADE, OR INDOOR EXOTHERMIC CONNECTIONS

A. Manufacturers:

1. CADWELD by ERICO Products.
2. Substitutions: As permitted.

B. Material: copper oxide and aluminum (reducer) or other powdered metal as recommended by the manufacturer.

C. Molds: Exothermic welding molds shall be sized and configured for the specific welding application. Molds which have been field modified for application other than their original purpose will not be utilized under any circumstance. Exothermic "one shot" connections are permissible.

2.04 GROUNDING CONDUCTORS

A. Material: copper, tinned if uninsulated

B. Buried Conductors

1. 2 AWG bare tinned solid copper, either soft (annealed) or semi-hard drawn commercial grade

2.05 BURIED IDENTIFICATION TAGS

A. Material: brass, minimum 19 gauge.

B. Description: minimum 1 inch oval, round, octagonal, or square tag with minimum 1/8" characters identifying the object that is bonded. Characters shall be stamped (indented).

C. Method of Securing: Nylon cable tie.

D. Use: for buried use only.

PART 3 EXECUTION

FPN: This execution applies to ground rods, external and/or buried grounding conductors, connections to ground rods, and connections to BellSouth Telecommunications grounding electrode systems. This document does not address grounding requirements inside the CLEC's enclosure. Also, this document does not address grounding of the telecommunications equipment and network. Furthermore, grounding requirements for the ac power service or feeder or branch circuit are not covered in this document but are covered by other BellSouth documents used by BellSouth's commissioned design firm and contractors. Also, this execution addresses in general buried cable and conduit for the ac power feeder, branch circuit, or service. However, detailed requirements for the ac power feeds are addressed in other documents used by BellSouth Telecommunications' commissioned design firms and contractors.

3.01 EXAMINATION

A. Verify location of all buried utilities prior to trenching, burying cable or conduit, and driving rod electrodes and take necessary precautions to avoid damage.

B. Verify that final backfill and compaction has been completed before driving rod electrodes.

3.02 COORDINATION

A. Coordinate work with other trades and contractors, including Network Certified Vendors where applicable.

3.03 INSTALLATION

A. Rod Electrodes

1. Install rod electrodes at locations indicated on design drawings.
2. Driving Requirements: Drive rods vertically to where the depth of the top of the rod is the same as the depth of the ring ground conductor but at least 18 inches below grade. Where a rod cannot be driven vertically due to soil conditions, it may be driven at a 45 degree angle. The top of the rod shall be free from damage after driving. "Mushrooming" of the top of the rod shall not be acceptable.

B. Connections

1. No slotted head bolt connections will be allowed.
2. Grounding conductor connections to conduit terminations shall be made with approved ground bushings.
3. Connections of the materials identified in Part 2 shall be made with either the exothermic process or compression connectors.
4. Contact surfaces shall be cleaned to a bare, bright finish and free of moisture when making connections.

a. Silver or tin plated connectors or connecting surfaces shall be cleaned only with a cloth moistened with petroleum spirits.
b. Unplated contact surfaces of all connections shall be cleaned with abrasive paper or a wire brush to a bare, bright finish. Remove all non-conductive coating such as paint, lacquer, oxidation, and enamel from both the surfaces and threads of bolts. After making connections to previously painted or enamel surfaces, cover exposed material with matching paint or matching enamel paint or spray paint.

Exception: Connectors with factory applied corrosion resistant compound and individually packaged in a sealed bag do not have to be cleaned or have additional corrosion resistant compound applied.

c. Remove galvanic material before making connections. After making connections, cover any exposed steel with Field Galvanizing Material.

5. Apply a thin coating of NO-OX-ID "A" to all contact surfaces and the entire connector.
Exception: exothermic welds
Exception: Connectors with factory applied corrosion resistant compound and individually packaged in a sealed bag do not have to be cleaned or have additional corrosion resistant compound applied.
6. Connections shall be made so that the conductors are dressed in the direction of the main ground reference (earth) where practicable.
7. Compression Connections:
   a. Cable installation and compression shall be done in accordance with compression manufacturer's instructions.
   b. Use appropriate connector size.
   c. Insert uninsulated end of conductor the full length of the barrel unless manufacturer states otherwise.
   d. Use appropriate compression tool and die.
   e. A single full compression cycle shall be used to make the compression.
   f. Compression shall be made where indicated on the barrel by manufacturer's instructions.
   g. Compression shall not extend beyond the barrel of the connector.
   h. Sharp edges or ridges resulting from the compression cycle shall be removed.
   i. Fractured, perforated, or majorly distorted connectors are not permitted.
   j. If the compression is not properly made, then the connector shall be discarded and a new connector used.
   k. Tools required to make compression connection should develop forces equal to or in excess of 12 tons.
   l. For insulated wire, the maximum amount of exposed wire between the connector body and the wire insulation is 1/16 inch. Exposures greater than 1/16 inch shall be covered with either friction tape or heat shrink tubing; flame retardant with an oxygen index of 28 or greater; and only cover ¼ inch of the barrel so that the crimp can be inspected. Transparent heat shrink is acceptable along the entire length of the crimp but in no case shall it extend beyond the barrel to the tongue area.
   m. Grounding conductor connections to building ground bars, if applicable, shall be made with two hole compression lugs.
8. Exothermic Welds
   a. Exothermic welds made inside the central office require an approved Method of Procedure.
   b. Exothermic welding shall be performed in strict accordance with the manufacturer's instructions.
   c. All personnel performing exothermic welding shall have been trained by a factory certified representative.

d. Exothermic welding shall not be performed during conditions of high humidity which inhibit the process from proper bonding. Consult the manufacturer's instructions for acceptable conditions and do not attempt any exothermic welding during such times as these conditions do not exist.

e. A maximum of twenty exothermic welds may be made from a single mold but in no circumstances will worn out or loose molds be utilized. Molds which experience "blow out" during the welding process shall be replaced immediately and any welds made which exhibit evidence on incomplete welding shall be cut off and rewelded.

C. Conductors - General Requirements

1. Grounding conductor paths shall be as straight as practicable. Conductor paths should not be routed away from earth unless such routing cannot be avoided. Conductor paths should be routed toward earth wherever practicable and horizontal otherwise.
2. Changes in direction of grounding conductors shall have minimum bending radii of 12 inches and no inclusive angles less than 90 degrees.
3. Support grounding conductors in accordance with drawing details. Where not indicated on the drawings, exterior above grade grounding conductors shall be supported with cable holders where not in PVC conduit installed.
4. Buried conductors shall be buried to a minimum depth of 18 inches below grade.
5. Do not use AC conduit or raceways for support of grounding conductors.
6. If for any reason the Network Transmission Engineering group or P&SM Manager – Electrical Systems requires the CLEC's bonding conductor to penetrate the central office and terminate in the central office, PVC sleeves will be required when routing through walls or between floors. PVC sleeves through exterior walls shall have waterproof plugs. PVC through walls and floors shall have approved firestopping. The BellSouth Telecommunications contractor shall install PVC sleeves per Section 16111.
7. Metallic supports which totally encircle grounding conductors or their PVC raceways are prohibited. Exception: The AC Equipment Grounding Conductor associated with a power circuit may be run in metallic raceway.

D. Inspection Well

1. The CLEC may install an inspection well(s) for their rod electrode(s) if desired.
2. Install well pipe top flush with finished grade.

3.04 FIELD QUALITY CONTROL

A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.

END OF SECTION

RL: 99-xx-xxxBT

PRIVATE

PROPRIETARY

CONTAINS PRIVATE AND/OR PROPRIETARY INFORMATION. MAY NOT BE USED OR DISCLOSED OUTSIDE THE BELLSOUTH COMPANIES EXCEPT PURSUANT TO A WRITTEN AGREEMENT.

file code:	010.0701
subject:	Guidelines for Virtual, Physical and Adjacent Collocation Arrangements
type:	Information Letter
date:	September 1, 1999
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other:	None
to:	Network Vice Presidents - Network Operations General Managers/Directors - Network Operations
entities:	BellSouth Telecommunications
from:	Network Vice President - Network Planning and Provisioning Support
description:	OSPE Guidelines to Implement Virtual, Physical and Adjacent Collocation

* * *

This letter is being issued to replace RL97-04-033BT in order to add a third type of collocation arrangement to be offered by BellSouth and to address the use of Dielectric Fiber Cable by a Collocator. In addition to existing Physical and Virtual Collocation directives, FCC First Report and Order Docket 98-147 mandates that upon application for space by a customer (Collocator) and determination that building space inside the Central Office is legitimately exhausted, BST must permit collocation in an adjacent structure to the extent technically feasible. BellSouth must provide power and physical collocation services and facilities subject to the same non-discriminatory requirements as traditional collocation arrangements. The customer is subject to and responsible for obtaining and conforming to all zoning or other permits that may be required by local governing authorities. This document provides information relative to BellSouth's Collocation offerings and describes OSPE's responsibilities when Collocation is ordered by any customer (Collocator). The Collocation order requires BST to provide these 3 space options for the purpose of interconnecting a Collocator's facilities to BST's switched and special access services and/or unbundled network services.

The procedures in this letter are required by order of the FCC. These procedures do not significantly impact OSPE, in that standard practices are used to implement collocation, and that each customer request will require a minor work effort. The actual impact of the additional work should be equivalent to the work load associated with DS1 requests, LightGate(r), and similar services. Collocation requests are expected to be more numerous for districts in metropolitan areas than for those in a rural environment.

Questions regarding Outside Plant Engineering responsibilities for Virtual, Physical or Adjacent Collocation should be directed to Steve Sanders at 704-536-0613.

Steve Market

Assistant Vice President

Network Planning and Provisioning Support

Attachment 1

1. GENERAL DESCRIPTION

1.1 There are three types of Collocation arrangements: Virtual, Physical and Adjacent. With Virtual Collocation, BST places Collocator-owned equipment in a designated bay area of a specified central office. In providing Physical Collocation, the Collocator is assigned floor space in a designated central office for the purpose of installing their transmission equipment. In the case of Adjacent Collocation, BST provides space exterior to the Central Office for a Collocator to place a structure to house their transmission equipment.

1.2 Two varieties of Physical Collocation arrangements are permitted in BST: (1) Expanded Interconnect Service (EIS), and (2) Service Interconnection. In an EIS arrangement, a Collocator places privately-owned fiber facilities from their outside plant network into a BST central office, which terminates at the equipment in their designated central office floor space area. With service interconnection arrangements, the Collocator only places equipment in their designated central office floor space; no privately-owned network fiber is placed. The Collocator purchases cross-connects to other BellSouth transport services from this arrangement.

1.3 Virtual Collocation can only be ordered as Virtual Expanded Interconnect Service (VEIS). This is essentially the same service as EIS with the exception that the network fiber is terminated at the Collocator's designated bay space.

1.4 Adjacent Collocation is conceptually the same as Physical. The difference is in the physical placement of the Collocator's equipment. In an Adjacent arrangement, BST provides an area exterior to the Central Office and on BST property deemed adequate by Property Services Management to accommodate a structure dimension requested by the Collocator. The area must include sufficient space for maintenance access and emergency power. The Collocator is responsible for 1) placing a structure to house their equipment within the designated space and 2) placing cable and conduit to connect that equipment to the BST network.

In an adjacent collocation arrangement, the Collocator is required to place the following conduit structures from the adjacent structure to the BST-designated interconnection point to accommodate the following:

1) Cable from the Collocator's adjacent structure to BST's designated interconnection point.

2) If Collocator not utilizing BST's outside network, cable from the Collocator's outside network to the Collocator's equipment in the adjacent structure.

The designated interconnection point will typically be the last manhole prior to entry into the Central Office vault. To minimize underground congestion around the Central Office and provide a common entry point for all customers, any cabling required to connect a Collocator's outside network to the Collocator's adjacent structure must be routed through the BST-designated interconnection point. The VEIS/EIS standards and procedures for Collocator demarcation and cable placement responsibilities listed in item (2) COLLOCATOR CABLE ENTRY – OSP-to-vault (listed below) shall also apply to an Adjacent Collocation application. The Collocator is responsible for placing all cabling from the interconnection point to their structure.

The Collocator must also provide an additional conduit and AC power cable from their adjacent structure to a BST-designated point at the Central Office building. The Property Services Management Group will provide specifics on AC power.

2. COLLOCATOR CABLE ENTRY - OSP-to-vault

2.1 BST will provide bay or floor space in the central office for installation of the Collocator's transmission equipment. VEIS/EIS requires that the Collocator place cable up to a BST-designated interconnection point, usually the last manhole prior to entering the CO vault (optionally, the Collocator may use alternate facilities, such as Dark Fiber, as entrance fiber). BST will provide innerduct to facilitate placement of fiber cable, if desired by the Collocator. BST will install cable provided by the Collocator from the interconnection point to the central office bay and will make the cable splice at the vault. The splicing methodology (i.e. mechanical, fusion, etc.) will be determined at the sole discretion of BST. Each fiber splice made by BST (i.e the vault splice) will have a maximum of 0.4 dB of loss. Additionally, all splicing peripherals, such as splice cases and splicing tools are also the responsibility of BST unless unique tools or testing equipment are required by the Collocator. In this event the Collocator is responsible for providing the desired tools and equipment.

2.2 No splice is allowed at the interconnection point, however, a splice is required at the CO vault unless Dielectric Fiber Cable is used.(see 2.2a below). Therefore, the Collocator is required to leave enough cable slack to allow for placement from the interconnection point to the CO vault. For interconnection points at manholes, the Collocator must contact BST before entering the manhole for instructions regarding safety and security regulations for manhole entry. The entrance and riser cables, along with the vault splice, will be maintained by BST. Figure A illustrates a typical VEIS/EIS arrangement.

2.2a RL 99-05-019BT introduced the availability of Dielectric Fiber Cable. Since this type of fiber sheath contains no metallic components, it is electrically non-conductive. If the Collocator opts to use Dielectric Fiber Cable up to the interconnection point there will be no requirement for a splice in the C.O. vault. In such a case, the Collocator must place the fiber to the interconnection point and leave enough cable slack for BST to continue the placement into the C.O. vault and up to the central office bay.

2.3 For the purpose of interconnection, the duct facilities extended from the interconnect manhole to the central office vault are leased to the Collocator as part of the cable installation charges. Therefore, no other Collocator's cable, or BST cable is allowed in the same physical duct occupied by a Collocator. If multiple Collocator's are present in a central office, each must have a separate duct entrance into the vault.

2.4 For smaller central offices that do not have vaults, the interconnection point should be determined at the discretion of the Outside Plant Engineer for buried applications, or should be the top of the last pole entering the CO for aerial applications. No physical structure, such as a handhole, should be placed to distinguish the interconnection point for buried applications. The buried interconnection point should be identified by placing an electronic marker and an above ground cable marker at the specified point. Fire retardant cable, meeting the appropriate standards, must be placed within 50 feet of the cable entrance point in all buildings.

2.5 The Collocator is solely responsible for providing the fiber optic facilities to the point of interconnection, including such duties as acquiring city, county, or state permits, inspections, complying with environmental regulations, etc. The Collocator must work closely with the BST Outside Plant Engineer to ensure that the fiber optic cable entrance facilities are of the proper length and type (i.e. fire retardant cable from the vault splice to the bay termination point). All fiber optic cable placed from the interconnection point to the CO vault or cable entrance facility should comply with the specifications outlined in Bellcore GR-20-CORE.

2.6 The Collocator is not allowed to create physical entry points into manholes such as drilling holes in the manhole wall to place cable knockouts, lateral duct, etc. In the event that facilities are not available for manhole entry, BST or its designated contractor will perform the necessary make-ready work ahead of the Collocator's planned manhole entry. The cost associated with this work is averaged into the cable installation fee charged to the Collocator. In general, all expenditures for standard Collocator make-ready work and fiber cable installation/splicing are recovered via the cable installation fee. Therefore, unless special circumstances are present, the OSP work required for Collocation should be classified as routine, steady-state operations.

2.7 Collocators may request to rent pole or conduit space to facilitate the placement of their facilities. All requests for facility rental should be coordinated through local joint-use/right-of-way Specialists. If the Collocator desires multiple entry points into the CO, facilities will be provided, where they exist. Facilities for multiple entrances will not be constructed under any special arrangement by order of the FCC.

3. COLLOCATOR CABLE ENTRY - Vault-to-equipment bay

3.1 The Collocator must provide BST with pre-terminated, dielectric, fire retardant cable to be placed from the vault splice to the designated central office bay. The riser cable should be pre-terminated on a fiber optic splicing shelf utilizing SC connectors. All riser cable must meet the specifications outlined in Bellcore GR-409-CORE. BST is responsible for the placement and maintenance of this cable which will be leased from the Collocator.

3.2 Pre-terminated cable is the preferred riser cable type in order to eliminate the need for a central office fiber splice at the terminating equipment. In the event that the Collocator cannot provide pre-terminated cable, the central office bay splice will be made by BST under an hourly-cost arrangement. Should the Collocator desire that the splice be made by the installation vendor, the Collocator must ensure that the installation vendor is certified to perform fiber optic splicing.

3.3 BST's Outside Plant Construction forces will also perform a fiber optic OTDR test, as indicated on the EWO, at the central office bay splice. The purpose of the OTDR is to test for fiber continuity and integrity from the central office bay splice to the point of interconnection. The OSPE is responsible for providing the Collocator with the information ascertained from the OTDR test to aid in the Collocator's overall fiber optic route design.

3.4 The Collocator is responsible for purchasing all network transmission and terminating equipment. The Collocator is also responsible for training BST employees in the event that the installed equipment is not currently in use at that BST location. The equipment will be installed in the designated bay or area by a BST approved vendor and subsequently leased to BST. BST will provide maintenance and repair for the leased equipment on an ongoing basis at the discretion of the Collocator. The equipment will not be PICS administered, thus, the Collocator is responsible for providing BST with maintenance spares for their equipment, if desired. Note: The above statements in paragraph 3.4 are applicable to VEIS, only.

3.5 VEIS/EIS CO interconnections may be at the DS0, DS1, or DS3 electrical level and must be supported by fiber optic transmission in the loop. Microwave transmission may be used instead of fiber where it can be economically provided.

4. CAPACITY ACTIVATION

4.1 When VEIS/EIS is desired in a CO, the Collocator will complete a BellSouth Expanded Interconnection Application and Firm Order Document (see Attachment 2) which will be submitted to the Collocation Coordination Center (CCC). The CCC will, subsequently, initiate a BellSouth Expanded Interconnection Inquiry and Firm Order Tracking Form (see Attachment 3) to be routed to the appropriate BST departments along with the application form. The Outside Plant Engineer uses the information contained on these forms to determine the interconnection point, the availability of entrance facilities, and to provide local construction contacts and associated information. This data should be transmitted to the Interconnection Network Access Coordinator (INAC) within five days.

4.2 An EWO should not be issued until a firm order is received. Firm order notification will be accomplished via the same form as the initial inquiry. The Outside Plant Engineer is responsible for contacting the Collocator to arrange for placement of the entrance fiber upon notification of the firm order.

4.3 The EWO should indicate the Collocator's cable on the work prints as: "Collocator Cable"
Collocator's name
Collocator's cable count
Leased and maintained by BST

BST's Outside Plant Construction forces should tag the Collocator's cable with the above information at the CO vault and at the point of interconnection, where applicable.

4.4 In instances where the Collocator provides DLE equipment in preparation for DS0, unbundled network access, OSPE must establish an inventory of the DS0 tie cables between the Collocator's facilities and the BST-designated main frame (see Figure A - drawing #2) for service order assignment control. The Collocation Tie Cable Input Form (Exhibit 2) should be forwarded to COSMOS, LMOS, and LFACS in order to build the facilities.

4.5 For DS0 unbundling, OSPE will receive a partially completed Collocation Tie Cable Input Form from CCM (see Exhibit 1), detailing the amount of DS0 pairs needed (i.e., pair range). Each DS0 tie cable should be established with the following naming convention:

[v/p][ccna designation][nnn][pair range]

example: vmci5,1-1200

where: v/p "v" for virtual collocator, or "p" for physical collocator

mci is the CCNA designation for MCI

5 is the cable number (cables mci1 - mci4 have already previously been est.)

1-1200 is the DS0 pair range

4.6 The following summarizes departmental and individual responsibility for the EIS process:

OSPE

Answer SI within five days

Verify conduit space
Review Collocator's cable placement plan for approval
Issue EWO to place and splice cable
Provide OTDR results to Collocator
Build inventory of DS0 tie cable

CIRCUIT CAPACITY MGR.

Issue EWO to place Collocator's equip. and associated cabling
Identify space requirements for Collocator
Issue EWO to place DSXs and multiplexers needed to provide service

OPCC

Inspect and verify that Collocator's plant construction meets BST standards.
Place and splice cable provided by Collocator
Perform OTDR test

COLLOCATOR

Provide technical information and placement plans to BST.
Place cable up to interconnection point.
Provide equip., including mtce. spares, and cable To circuit capacity mgt. Equip. installed by a BST Certified vendor.

Figure A - drawing #1

Figure A - drawing #2

Exhibit 1

page 1

Exhibit 1

page 2

Exhibit 1

page 3

Exhibit 2

REQUEST: Produce any and all documents relating to BellSouth's proposed performance metrics in Tennessee.

RESPONSE: See documents attached to BellSouth's Response to Intermedia's First Interrogatories, Item No. 115.

REQUEST: Produce copies of BellSouth's responses to CLECs' requests for collocation reports, as required under the *Advanced Services Order*.

RESPONSE: Pursuant to the FCC's 706 rule, requestors must complete request forms and submit payments for each CO where information is requested. Thus, BellSouth is not obligated to produce such reports in this context.

REQUEST: Produce any and all documents relating to BellSouth's payment or nonpayment of reciprocal compensation to CLECs for the transport and termination of traffic to ISPs.

RESPONSE: BellSouth objects to this request for production on the grounds that it is (1) vague, overly broad and unduly burdensome and (2) that it is not relevant to the issues in this docket. BellSouth further objects to the extent that this request seeks the production of confidential settlement documents that cannot be disclosed by BellSouth. BellSouth further objects to the extent this request seeks documents that are publicly available.

REQUEST: Produce any and all documents relating to BellSouth's proposed collocation intervals.

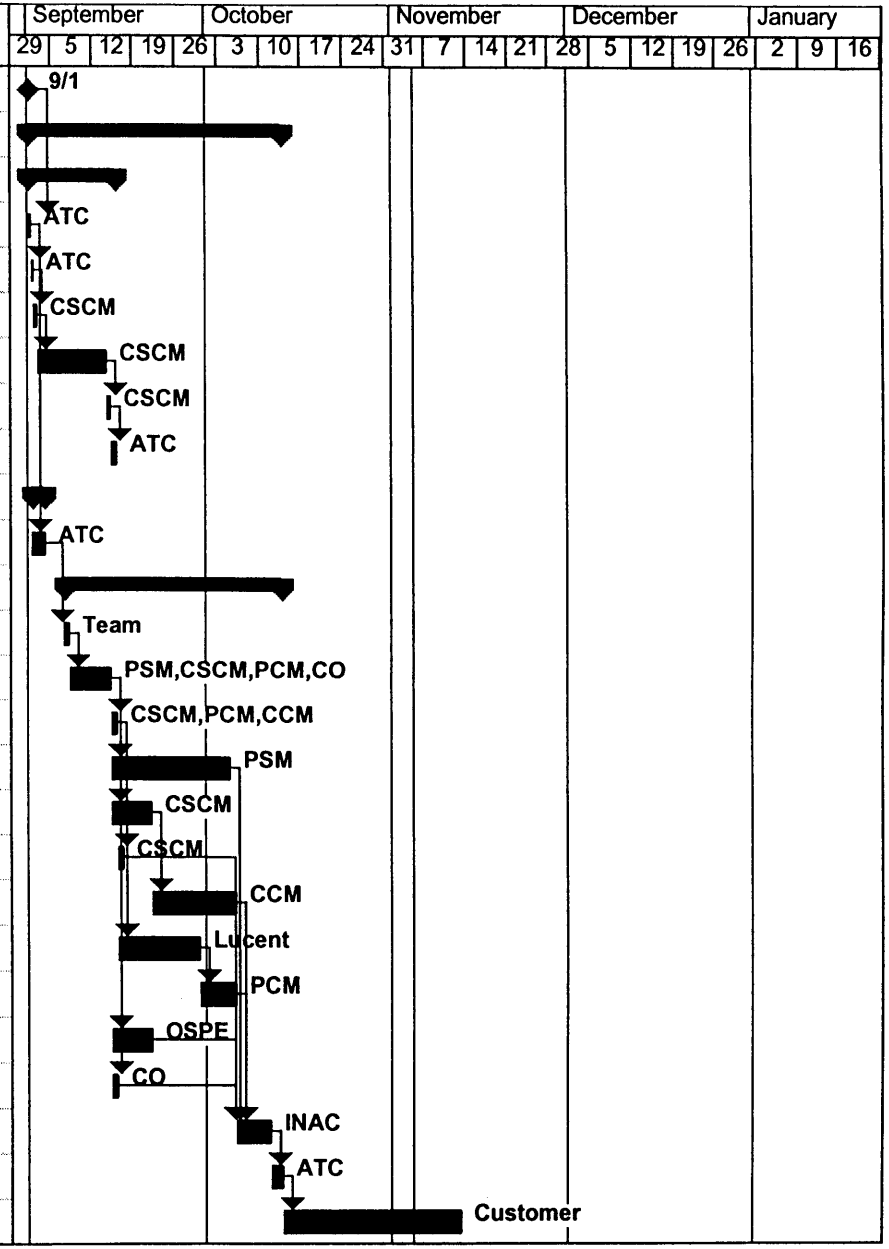
RESPONSE: BellSouth objects to this request for production on the grounds that it is overly broad, unduly burdensome and oppressive. Subject to and without waiving the foregoing objection, see attached.

BellSouth Telecommunications, Inc.
TRA Docket No. 99-00948
Intermedia's First Request for Production
June 19, 2000
Item No. 65

ATTACHMENT

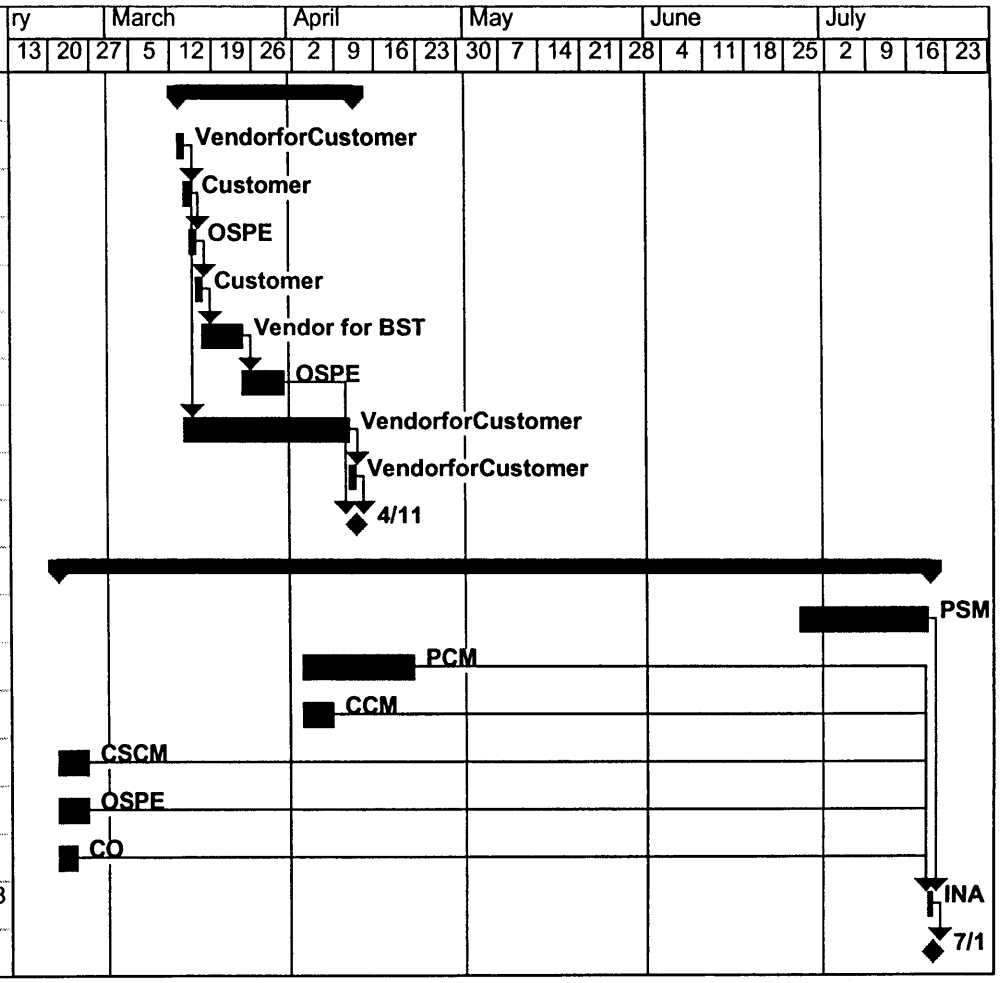
BST COLLOCATION TIMELINE

ID	Task Name	Duration	Predecessors
1	Project Start	0 days	
2	**App/Inquiry Phase**	**30 days**	
3	**10 Day Space review**	**10 days**	
4	ATC receive inquiry	0.5 days	1
5	ATC sends inquiry to CSCM, copy to INAC, P&SM	0.5 days	4
6	CSCM review application for space requirements	0.5 days	5
7	CSCM determines space availability within CO	7 days	6
8	CSCM completes response form and sends to ATC	0.5 days	7
9	ATC response to customer	1 day	8
10	**ATC review and process inquiry**	**2.5 days**	
11	ATC establish bona fide status,distribute inquiry	2.5 days	4
12	**Area Team Review**	**27 days**	
13	Area Team receive and review Inquiry	1 day	11
14	Team - Review space, select location, determine spa	5 days	13
15	CSCM, PCM, CCM - Determine CO infrastructure re	1 day	14
16	P&SM - Prepare Cost Estimate, Inquiry response	14 days	14
17	CSCM - Provide infrastructure rqmts and floor space	5 days	14
18	CSCM - Prepare Inquiry response	1 day	15
19	CCM - Prepare cost estimate, Inquiry response	10 days	17
20	Lucent - Prepare cost estimate, Inquiry response	10 days	15
21	PCM - Inquiry response	4 days	20
22	OSPE - Research OSP, Inquiry response	5 days	14
23	CO - Estimate Add'l eng,Inquiry response	1 day	14
24	INAC Review Data, prepare & send Inquiry response	4 days	16,19,21,22,23,18
25	ATC prepare & send inquiry response to customer	2 days	24
26	Customer Review & Submit firm order	30 edays	25



BST COLLOCATION TIMELINE

ID	Task Name	Duration	Predecessors
72	**Collocator Implementation**	**22 days**	
73	Provide MOP to CO	1 day	71
74	Collocator fiber to manhole	1 day	73
75	Pull fiber from manhole to vault	1 day	74
76	Deliver riser cable	1 day	75
77	Place riser cable	5 days	76
78	Splice outside fiber and riser	5 days	77
79	Collocator Equipment Installation	20 days	73
80	Testing	1 day	79
81	Collocator Installation complete	0 days	80,78
82	**Preparation of Actuals**	**105.5 days**	
83	P&SM - Receive invoices, prepare Actuals	15 days	63FS+90 days
84	PCM, Lucent - Receive invoices, prepare Actu	15 days	63FS+30 days
85	CCM - Receive invoices, prepare Actuals	5 days	63FS+30 days
86	CSCM - Prepare FO Response	5 days	63
87	OSPE - Prepare FO Response	5 days	63
88	CO - Prepare FO Response	3 days	63
89	INAC review data & prepare & sendFO respon	0.5 days	83,84,85,86,87,88
90	Project Complete	0 days	89



BellSouth Physical Collocation Offering
Application and Provisioning Process Intervals

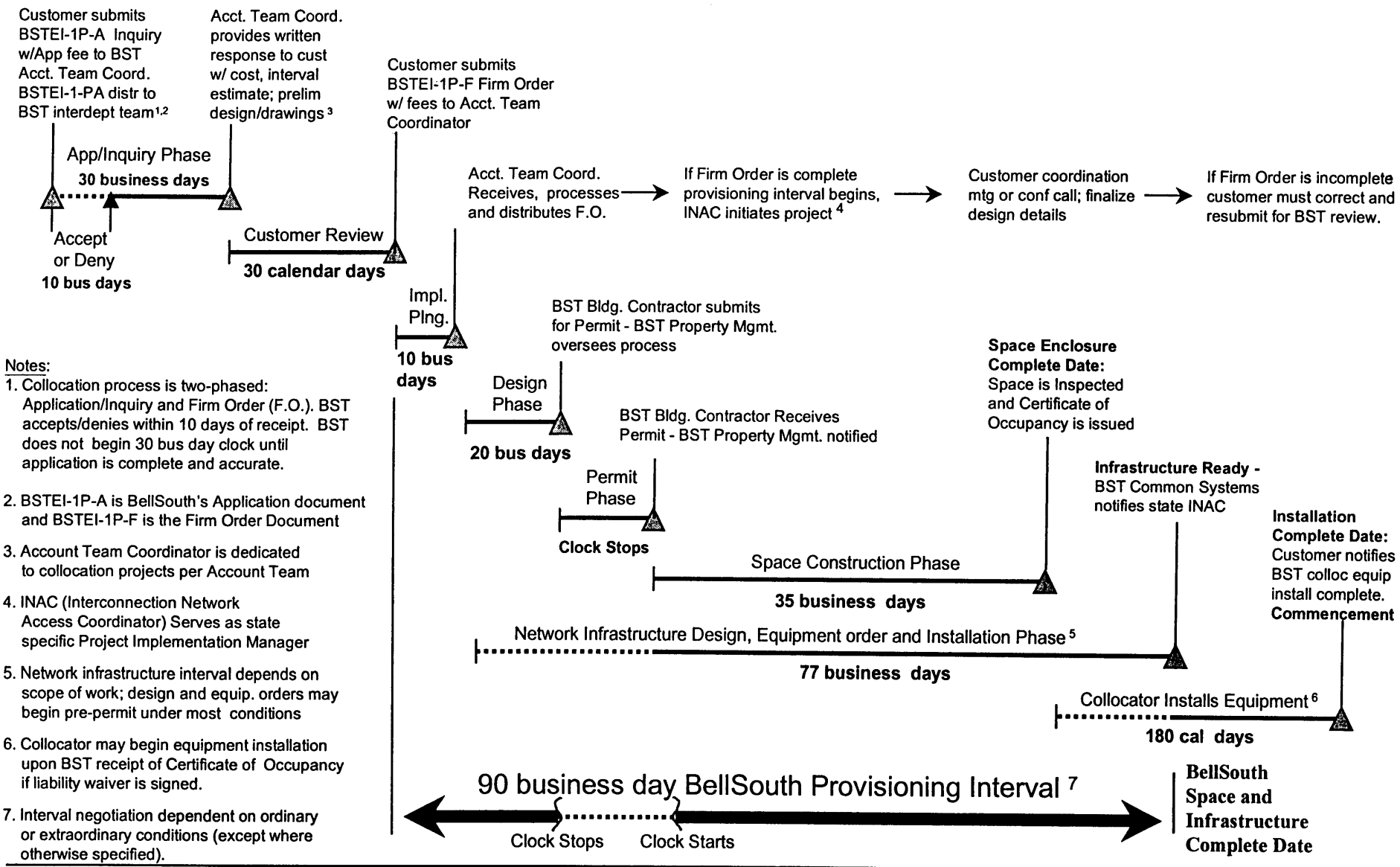
This document is for discussion purposes only.

Collocation Provisioning Process Interval & Outputs

BELLSOUTH

Physical Collocation - Business Day interval
Process assumes ordinary conditions

DRAFT*



Notes:

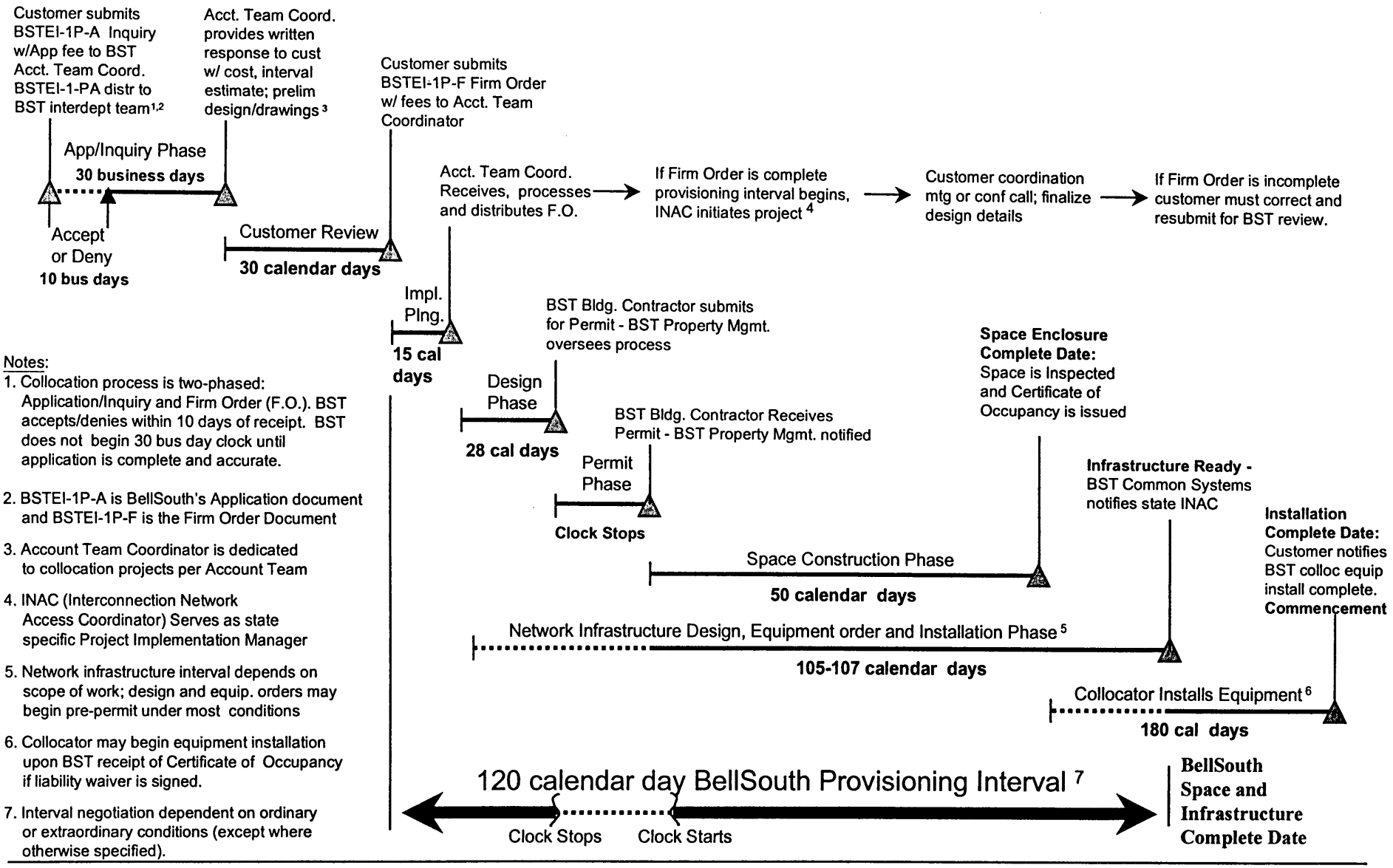
1. Collocation process is two-phased: Application/Inquiry and Firm Order (F.O.). BST accepts/denies within 10 days of receipt. BST does not begin 30 bus day clock until application is complete and accurate.
2. BSTEI-1P-A is BellSouth's Application document and BSTEI-1P-F is the Firm Order Document
3. Account Team Coordinator is dedicated to collocation projects per Account Team
4. INAC (Interconnection Network Access Coordinator) Serves as state specific Project Implementation Manager
5. Network infrastructure interval depends on scope of work; design and equip. orders may begin pre-permit under most conditions
6. Collocator may begin equipment installation upon BST receipt of Certificate of Occupancy if liability waiver is signed.
7. Interval negotiation dependent on ordinary or extraordinary conditions (except where otherwise specified).

Collocation Provisioning Process Interval & Outputs

BELLSOUTH

Physical Collocation - Calendar Day interval
Process assumes ordinary conditions

DRAFT*



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BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
1	Customer Review & Submit firm order	30 edays		**30 Days**	
2	**Preliminary Planning - Takes place during 30 day customer decision interval**	**20 days**			Application Review/Space Availability. Network Program Manager (NPM) reviews application for accuracy and forwards to Process Engineers (Power/Switch Engineer, Transmission Engineer, Land & Buildings Engineer, and Outside Plant Engineer) for determination of Space. Site visits are scheduled if required, to determine availability of space and building infrastructure. The following procedures are completed with in 9 days to provide availability of space to Carrier Markets. At the same time Process Engineers determine cost/pricing and provides that information by day 25 of 30 day space availability window.
3	**P&SM - Develop Preliminary Design** Commissioning of design consultants. Develop scope of work for Collocation project. Site visit to determine building infrastructure work required to provision collocation space. Meet with CSCM, Facility Manager and Central Office Supervisor to determine access route and requirements for Collocator. Preliminary mechanical and electrical reviews of existing systems.	**15 days**		**9 Days**	**Building Engineer** Building Engineer consults with the Regional Network Planner(RNP) to assure that current plans are known to the team or, when available, a current reserve-layer drawing is provided to the team for use in determining what can or cannot be offered to the applicant. The Building Engineer compares available space against the applicant's request, and provides assessment to the team: a). application can be honored as received; b) application can be honored but must be modified; or c) suitable space remains unavailable to honor applicant's modified request. This step must be completed and notification provided to the NPM by day 8, following receipt of the application
4	**PCM, Lucent - Power Construction Planning**	**5 days**		**9 Days**	**Switch/Power Engineer**

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
	The power planning process is an iterative process consisting of: Data collection, Data analysis, Timing and sizing decision, Development of power plan and Manage plan implementation, repeated for each power capacity element for each office in the assigned area of responsibility. **Data Collection:** Data is required to carefully plan a power installation. Examples of data collection include: Busy hour drain readings obtained from remote power monitors; Incremental drains from switching system or circuit equipment additions or removals, Essential AC building loads; Knowledge of office long term plans, such as a switch replacement, new service offering, or implementation of an operator services center; and Plant replacement, modernization, low utilization, or maintenance needs.				Switch Power Engineer will consider the following in determination of collocation application: determines quantity, types and location of interface equipment needed. Calculates AC/DC power requirements for specified equipment, power grounding, and fuse requirements. Considers requested diversity options. Completes power connectivity lists.
	Data Analysis: The data collected should be thoroughly reviewed and analyzed for accuracy. Examples of data analysis include: Engineering review of "autopoll" busy hour drain readings in AMPERES; Validating remote power monitor programming; and Verifying accuracy of AMPERES inventory database. **Timing and Sizing Decision** Timing of the power capacity activity is dictated by the need. The sizing is dictated by the BST power reliability standards. Development of Power Plan The current plan is associated with power capacity requirements required within a rolling 24 month period, when office plans are sufficiently firm to allow equipment selection and tentative scheduling. Current plans specify timing and sizing of power capacity activities for projects that satisfy capacity requirements identified via forecast, pending, in effect, or critical flags.				
5	**CSCM - Preliminary Planning** CSCM assesses CO equipment infrastructure issues related to application such as cable rack requirements; cable lengths and routes; fiber entrance arrangements and routes; POT bay locations; DF, DSX and LGX terminations.	**15 days**		**9 Days**	**Transmission Engineer Planning** Transmission Engineer determines interface requirements from application (i.e. DSX, LGX, Etc.), and determines cable/fiber types, sizes, and lengths of runs. Engineer will also confer with Switch/Power Engineer to determine cable rack requirements.
6	**OSPE - Construction Planning**	15 days			Outside Plant Engineer

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
	Survey location and determine construction methods to be used, potential rearrangements in manhole - availability of spare ducts			9 Days	Determine the location of point(s) of ingress and/or egress at the Sprint facility, per application. Prepare a detailed stick map to identify the proposed facilities by direction, type of facility, size, gauge, and length of facility by type.

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
7	**BST Implementation**	**81 days**		**90 Days**	**Collocation Build Out**
8	Area Team receive firm order	1 day		**1 day**	Same
9	**Implementation meeting/conference call w/customer** BST, CLEC and often CLEC vendor participate to address location and infrastructure questions. Questions concerning the location of the collocation space, cable racks/ducts, terminating equipment and power sources, cable holes, and ceiling inserts are addressed.	1 day	8	**1 day**	Same Same
10	**P&SM - Property & Services Management**	**50 days**		**50 Days**	**Building Engineer**
11	**Design Phase** Finalize scope of work. Detailed architectural, mechanical, and electrical engineering design. Determination of local code requirements. Preparation of architectural/engineering drawings and specifications. Detailed estimate of project cost. Procurement of contractor. Printing and delivery of drawings to contractor	15 days	3,8	**25 Days**	**Design Phase** Work activities are approved by Land and Buildings. Construction drawings are prepared. Drawings are submitted to construction for pricing. Contractor prepares cost proposal and submits back to Building Engineer for approval. Sprint sends response to proposal.
12	**Permit Phase** Contractor files for building permits. Contractors expedite building permits. Delays in receiving permits from municipalities over 5 days will not be included in construction interval since this is beyond BST's control.	5 days	11	**14 Days**	**Permit Phase** Contractor files for building permits. Estimating an average of 14 days for turn around time. This time is figured into Sprint's time interval. Extraordinary conditions for permits will be discussed with CLEC as need arises.
13	**Construction** Contractors prepare shop drawings, order materials, receive materials on-site. Construction work may include the rearrangement of mechanical ductwork, mechanical rebalancing, ground bar installation, card access/security system installation, electrical lights, outlets, panels, additional cable holes or ceiling inserts, and enclosure. Construction interval also includes periodic inspections by the architect, engineers and local building officials, final inspections and receipt of Certificate of Occupancy from local building department.	30 days	12	**11 Days**	**Construction Phase** enclosure.
14	Construction Complete - Milestone	0 days	13		

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
15	**Network Infrastructure**	**80 days**		**90 Days**	**Network Infrastructure**
16	**CSCM - Common Systems Capacity Management**	10 days		**73 Days**	Transmission Engineering
17	Consult with PCM, CCM on infrastructure requirements	10 days	5,8	**73 Days**	

CSCM provides floor space information, cable rack requirements, cable lengths and routes; fiber entrance arrangements and routes; POT bay locations; DF, DSX and LGX terminations to CCM. Any changes which could affect power or infrastructure requirements are shared with PCM and CCM prior to implementation start.

Design Phase: All work activities prepared & Approved. Materials ordered and specifications are issued. 10 days. Transmission Engineer will deliver the required detailed drawings to the NPM. These drawings depict the exact location, type and cable termination requirements (i.e., connector type, number and type of pairs and naming conventions) for Sprint point of termination locations (i.e., MDF assignments and drawings, DSX assignments and drawings, cable rack drawings, power connectivity lists, etc.) Ensures all EF&I of metal work is completed. Completes Transmission/Signal Cabling, Builds CLLI request, DSX, and Time Cable Records in CIRAS. >>CIRAS is equivalent to TIRKS << (2 days)

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
18	**PCM - Power Capacity Management, Lucent**	**55 days**		**60 Days**	**Switch and Power Engineer**
19	**Engineer, determine material, design, order** Determine all components (major items of equipment, cabling, framework, cable rack, and associated hardware) required for installation, Determine required cable sizing, routing, and termination hardware, Determine appropriate equipment grounding, Request associated building work from Property Management, if required, Order all required components from manufacturer(s), Mark affected office record drawings, Obtain fuse / circuit breaker assignments, Obtain alarm assignments, Obtain circuit interconnection assignments, if necessary, and Issue installation specification(s).	10 days	4,8	**10 Days**	Design Phase - Work activities prepared & approved. Materials ordered and specifications issued.
20	**Manufacturing and Shipping** Manufacture of power components, Obtain required components from OEM suppliers, and Shipment of required components to job site.	25 days	19	**45 Days**	Material Received On-site
21	**Installation** The installation process includes: Hauling and hoisting of power components to the point of installation. Inventory to ensure all required components are on site. Installation of cable rack / superstructure. Installation of framework / battery stand. Installation of rectifiers / batteries. Installation of cable runs. Battery charging. Power turn-up / transition work. Alarm testing. Power monitor programming. Job acceptance.	20 days	20	**5 Days**	Materials ordered are received on-site at day 65 of collocation completion. Place power cable after enclosure completion.
22	Power work complete - Milestone	0 days	21		Same

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
23	**CCM - Circuit Capacity Management**	**80 days**			
24	**TEO Preparation - Cable Support, Frame**	10 days	5,8		
	Review application requirements and assess current CO DF, DSX and LGX termination capacity for equipment requirements. Contact vendor to discuss job loads in district and set preliminary schedule. Prepare detailed construction authorization documentation and records. Investigate budget to ensure funding availability. Prepare and submit TEO (Telephone Equipment Order) (basic description of work to be performed and equipment to be installed) to Eng. and Inst. vendor. Manage BST - Vendor Engineering issues.				
25	**Vendor Engineer and Furnish**	40 days	24		
	Determine all components (major items of equipment, cabling, framework, cable rack, and associated hardware) required for installation, Determine required cable sizing, routing, and termination hardware, Determine appropriate equipment grounding, Request associated building work (new cable holes, ceiling inserts, etc.) from Property Management, if required, Order all required components from manufacturer(s), Mark affected office record drawings, Develop cable termination assignments Issue installation specification(s). Shipment of required components to job site.				

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
26	**Vendor Installation** The installation process includes: Method of Procedure development and approval Inventory to ensure all required components are on site. Hauling and hoisting of components to the point of installation. Installation of superstructure, cable rack, fiber duct, frame and aisle lighting, ground conductors Installation of telecom framework & equipment (POT Bays, DSX, LGX, DF equipment) Installation of cable runs. Equipment stenciling. Engineering record changes	30 days	25		
27	**Installation Complete - Milestone**	0 days	26		
28	**Vendor provided wiring data** Contact vendor, request data, receive and review vendor wiring data forms.	1 day	27		
29	**Build TIRKS & LFACS records** Prepare cable/pair form based on vendor wiring data. Forward form to OSPE. OSPE, COSMOS, and LFACS populate data on the cable/pair form. Receive completed form from OSPE. Initiate TIRKS TIE record. Verify vendor data with TIRKS records. Build TIEs. Request CPG to complete records. CPG completes records and issues WORD document.	10 days	28	**2 days**	too.
30	**Assignment data prepared & sent to customer** Review completed cable/pair form to insure completeness. Prepare customer document and mail to customer. Often, mail T1TIE/T3TIE replacement forms to customer.	5 days	29	**2 days**	DS0 assignment data prepared & sent to Carrier Markets for delivery to CLEC and CLFI Records created in CIRAS and provided to ASP.

BellSouth
Virtual and Physical Collocation
Firm Order Implementation Intervals
Ordinary Conditions

Task ID	Task Description	Business Days	Predecessors	Sprint Days	Sprint Descriptions
31	**OSPE - Outside Plant Engineering**	**30 days**		**50 Days**	**Outside Plant Engineer**
32	**Prepare work order** Research records - make field visit for sketch - Design job in mechanized system - schedule work	10 days	6,8	**10 Days**	Design Phase - Work activities prepared and approved. Materials ordered and specifications issued.
33	**Build manhole knockouts, innerduct** Open ducts in manhole - order, receive and place innerduct	20 days	32	**40 Days**	knockouts, and innerduct work. - 25 days. Review completed work with NPM - 1 Day.
34	**OSPE work complete - Milestone**	0 days	33		
35	**CO Operations - Central Office Operations**	6 days		**30 Days**	Carrier Markets process paperwork for keys and access cards to Physical Security.
36	Process paperwork for keys, access cards	5 days	8	**20 Days**	Carrier Markets process and receives keys and/or access cards.
37	Key, access cards received from Access Management	1 day	36	**10 Days**	Acknowledgement of keys/access cards from CLEC.
38	**Space and Infrastructure Complete - Milestone**	0 days	14,22,27,30,34,37		Project Complete for collocation build out