

Figure 3. DS1 End-User Access To UPS

In both Figure 3. and 4. the UPS UNEs provide the port on the Fast Packet Switch. Transport elements, Special Access or UNEs are required to interface with the port.

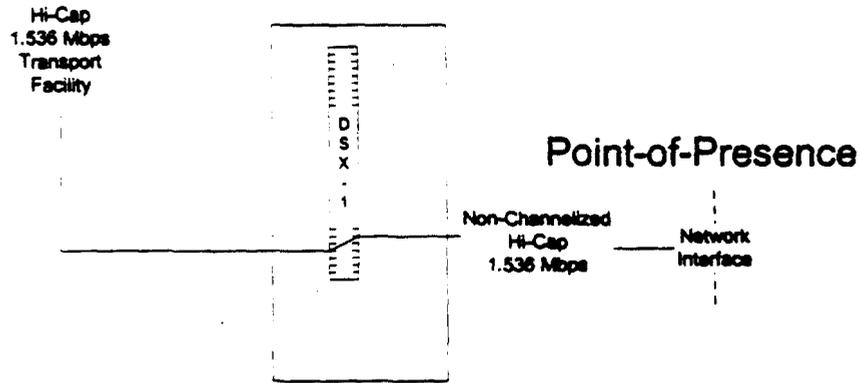
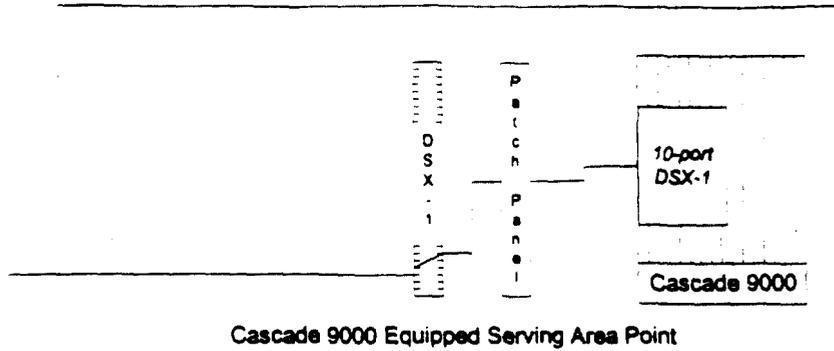


Figure 4. DS1 OLEC Access to UPS

The UPS - FRS DS3 is provided via the 2 Port High Speed Serial Interface Card. The connection to the transport service is at the DSX-3 cross-connect panel nearest to the Cascade BSTD-X 9000 (see Figure 5.) The physical connection depicted in Figure 5. provides for the following UNEs: DS3 FRS UNI, DS3 FRS NNI, DS3 CDS SNI, DS3 CDS SSI.

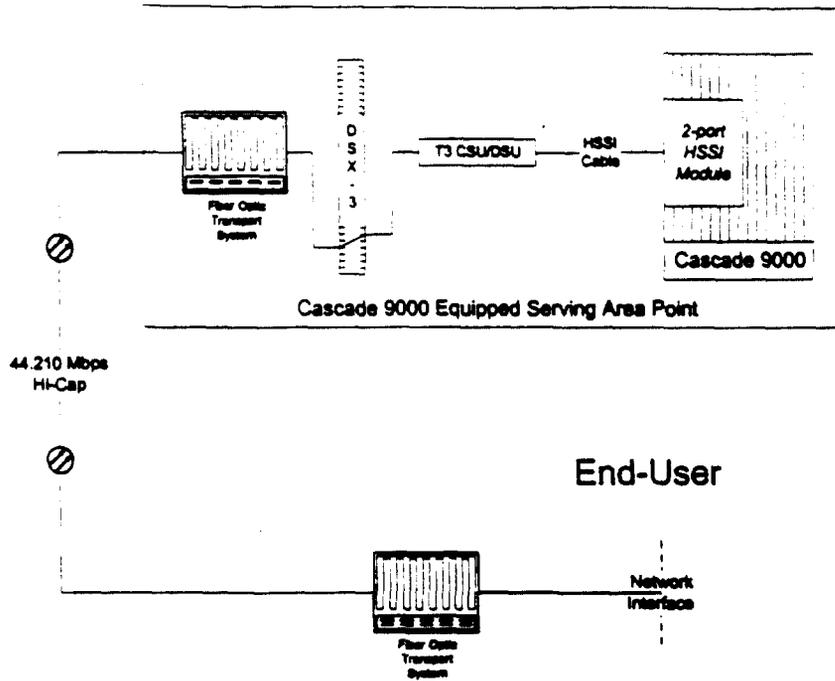


Figure 5. DS3 End-User Access to UPS

In both Figure 5. and 6. the UPS UNEs provide the port on the Fast Packet Switch. Transport elements, Special Access or UNEs are required to interface with the port.

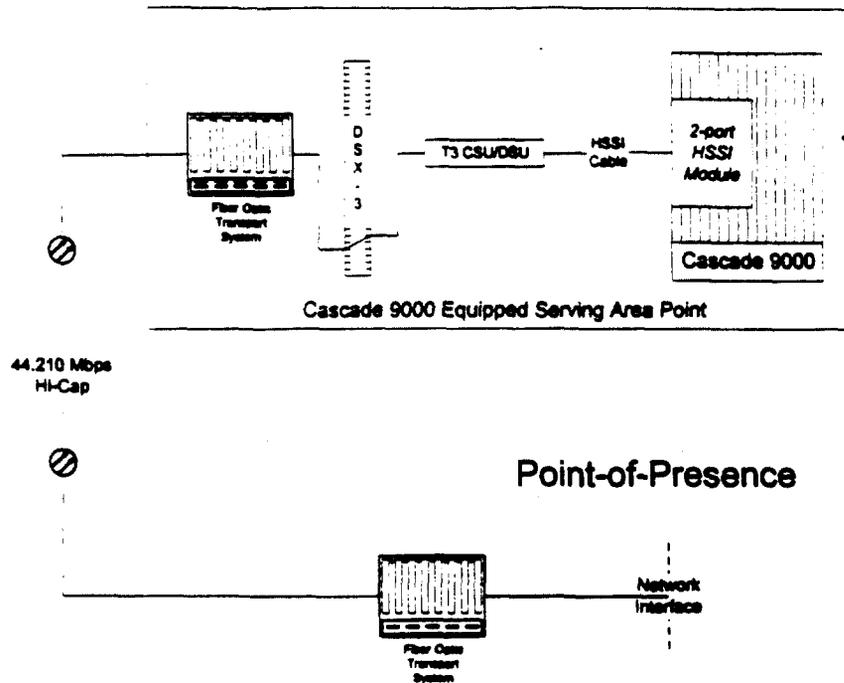


Figure 6. DS3 OLEC Access to UPS

2.2 Operational Support System Requirements

UPS UNEs are provided via the Cascade B-STDx 9000. The switches are provisioned via Cascade View software which is provided by Cascade Corp. Cascade View requires a UNIX operating environment and is built on Hewlett-Packard Open View. The Cascade switches have native Simple Network Management Protocol (SNMP) agents supporting the Cascade Enterprise Management Information Base (MIB).

In addition to the Cascade View software required to manage the switches, the multi-port cards on the switches are inventoried and assigned in TIRKS. The Operations personnel required to perform the physical work in the Central Offices to provision the UPS services are dispatched via the Work Force Analysis (WFA) system.

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3. Performance Standards and Reliability

3.1 General Description of Performance Standards

The UPS UNEs are in compliance with various industry standards as follows:

3.1.1 UPS FRS UNI

ANSI T1.617-1991, "Integrated Services Digital Network (ISDN) - Digital Subscriber Signaling System No. 1 (DSS1) - Signaling Specification for Frame Relay Service", American National Standards Institute, and ANSI T1.618-1991, "Integrated Services Digital Network (ISDN) - Core Aspects of Frame Relay Bearer Service", American National Standards Institute.

Document No. 001-208966, "Frame Relay Specification with Extension Based on Proposed T1S1 Standards", Digital Equipment Corporation, Northern Telecom, Inc., and StrataCom, Inc.

3.1.2 UPS FRS NNI

Frame Relay Forum Document FRF.2, Frame Relay Network-to-Network Phase I Implementation Agreement.

All UNI access facilities must be in conformance with ANSI standards T1.617-1991, T1.618-1991.

All NNI access facilities must be in conformance with ANSI standards and Bellcore Technical Reference TR-TSV-001370.

Performance specifications for BellSouth FRS are contained in:

BellSouth Technical Reference 73587, Frame Relay Service Interface and Performance Specifications.

3.1.3 UPS CDS

CDS access utilizes Inter-Carrier Interface Protocol (ICIP) Level 3 as defined in Bellcore TR-TSV-001060, and DXI Data Link (Level 2) protocol as defined in Bellcore TR-TSV001239. Detailed BellSouth conformance to the requirements in these documents is contained in Cascade documents 80011 and 80012, respectively. DS3 physical level specifications conform to the Asynchronous c-bit Parity structure defined in ANSI T1.107a-1990.

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3.2 Diversity / Redundancy Requirements

There are no diversity or redundancy options planned for the BellSouth UPS services at this time.

3.3 Performance Monitoring

BellSouth provisions and maintains Fast Packet service from the Data Customer Support Center (DCSC) in Tucker, Ga. Within the DCSC, there is a Network Surveillance group responsible for proactively monitoring the health of the BellSouth Fast Packet Services Network.

4. Ordering, Administration, Maintenance and Provisioning (OAM&P)

4.1 Interval for Installation

Installation interval for DS0 and DS1 UPS UNE are as follows:

Service Inquiry to Application Date - 2 Days

Application Date to Service Order Issue Date - 1 Day

Service Order Issue Date to Loop Assignment Make-up - 1 Day

Loop Assignment Make-up to Records Issue Date - 2 Days

Records Issue Date to Design Verified Date - 1 Day

Design Verified Date to Wired and Office Tested - 2 Days

Wired and Office Tested to Frame Continuity Date - 0 Days

Frame Continuity Date to Plant Test Date - 1 Day

Plant Test Date to Due Date - 2 days

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The combined dates listed above result in a total installation interval of 10 business days from Application Date to Due Date. DS3 and OC3 installation intervals are set in response to Service Inquiries due to the limited availability of fiber facilities.

Repair of UPS services should be within 3.5 hours. Escalation procedures are established and provided to the customers when service is turned-up.

4.2 Description of Centers Affected

4.2.1 DCSC

The DCSC in Tucker, Ga. is responsible for provisioning and maintaining BellSouth UPS. Each switch in BellSouth is connected to the DCSC via at least two network management links to ensure the ability to reach the switch for maintenance.

4.2.2 Access Customer Advocacy Center

The Access Customer Advocacy Center (ACAC) is consider the Overall Control Office and Maintenance Control Office for all circuits ordered by Carriers. In this role, the ACAC would be responsible for receiving the initial call from a customer with a maintenance problem.

4.2.3 Local Carrier Service Center

The Local Carrier Service Center (LCSC) will be responsible for receiving requests for service from customers for the UPS UNEs and issue the resulting orders.

Attachment 1

Force Requirements for UPS-UNE

Product	Team	RJ	RC	M/Non-M	PGWS	Status	Comments
ASTP	ASTP	HQ	T0G	M		58 RF	Becky Combs 404-529-6112 & Jack T
ASTP	ASTP	HQ	A0R	M		59 RF	Joe Gallagher 205-321-4460
ASTP	ASTP	HQ	A0R	N		18 RF	CRIS Billing
ASTP	ASTP	HQ	A0R	N		14 RF	Comptrollers Billing Svcs.
ASTP	ASTP	HQ	P0J	M		59 RF	David Rutland 404-529-7780
ASTP	ASTP	HQ	P0J	M		61 RF	Ken Hawkins 205-444-0595
ASTP	ASTP	HQ	P0J	M		59 RF	Bob Fulghum 205-444-0512
ASTP	ASTP	HQ	P0J	M		59 RF	Thad June 404-529-0583
ASTP	ASTP	HQ	P0J	M		59 RF	Tim Tuggle 205-444-0515
ASTP	ASTP	HQ	P0J	M		59 RF	Alan White 205-444-0552
ASTP	ASTP	HQ	NPD	M		59 RF	Network Operations
ASTP	ASTP	HQ	NPD	M		58 RF	Network Operations
ASTP	ASTP	HQ	NPE	M		59 RF	Network Planning & Engineering
ASTP	ASTP	HQ	NPE	M		58 RF	Network Planning & Engineering
ASTP	ASTP	HQ	P0J	M		59 RF	Henry Atchley 205-444-0536
ASTP	ASTP	HQ	P0J	M		59 RF	Pam Kruse 205-444-0532
ASTP	ASTP	HQ	P0J	M		59 RF	Ken Smith 205-444-0531
ASTP	ASTP	HQ	P0J	M		61 RF	Hank Dorsey 404-330-0169
ASTP	ASTP	HQ	P0J	M		59 RF	Diana Gash 770-496-2851
ASTP	ASTP	HQ	A05	M		58 RF	Andrea Hopkins 404-529-7295
ASTP	ASTP	HQ	P0J	M		58 RF	John Garrett 205-444-0578
ASTP	ASTP	HQ	P0J	M		61 RF	Jim Johnson 404-529-8393
ASTP	ASTP	HQ	P0J	M		59 RF	Lu-Ann Dehaney 205-444-0596
ASTP	ASTP	HQ	P0J	M		59 RF	Linda Quarles 205-444-0543
ASTP	ASTP	HQ	NPE	M		59 RF	Gil Delara 404-529-6122
ASTP	ASTP	HQ	A0R	M		58 RF	Dottie Harris 205-321-4403
ASTP	ASTP	HQ	A0R	N		18 RF	CABS Billing
ASTP	ASTP	HQ	K07	M		58 RF	Cindy Kendrick ICSC 205-977-1257
ASTP	ASTP	HQ	K01	M		58 RF	Gary Barlow 205-321-2930 Industry F
ASTP	ASTP	HQ	K01	M		59 RF	Bob Williamson 205-977-1117 Intercc
ASTP	ASTP	HQ	P0J	M		61 RF	Chris Noll 205-444-0587
ASTP	ASTP	HQ	P0J	M		59 RF	Jim Rainwater 205-444-0566
ASTP	ASTP	HQ	P0J	M		59 RF	Bob Crenshaw 205-444-0558

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ASTP	ASTP	HQ	P0J	M	59 RF	Ron Stanton 205-444-0570
ASTP	ASTP	HQ	P0K	M	59 RF	Mike Gafford 205-444-0520

Attachment 2

BellSouth Regional Forecast

"PORT" FORECAST

TYPE	EOY 1997	EOY 1998	EOY 1999
FR 56/64	1618	4046	12137
UNI	1529	3823	11469
NNI	89	223	668
FR 1.536	400	1000	3000
UNI	392	980	2940
NNI	8	20	60
FR 44+	6	22	84
UNI	6	22	82
NNI	0	0	2
CDS 56/64	241	542	1506
SNI	236	531	1476
SSI	5	11	30
CDS 1.536	80	180	500
SNI	78	176	490
SSI	2	4	10
CDS 44+	1	4	14
SNI	1	4	14
SSI	0	0	0

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Fast Packet Services - Resale CLEC Information Package

(This information is provided solely as a convenient reference for BellSouth's customers. While BellSouth believes information contained herein to be consistent with applicable tariffs, the tariffs shall prevail in any instance in which an inconsistency may exist.)

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1. Marketing Service Description

1.1. Serving Area Concept

Certain BellSouth Central Offices are designated by the Company as Serving Area Points for Fast Packet Services. The Serving Area Points surrounding a given metropolitan area are declared to be a Serving Area. Fast Packet service end-user customers within the Serving Area are required to buy a Fast Packet Service Customer Connection, either Frame Relay Service (FRS) or Connectionless Data Service (CDS), and a Broadband Exchange Line (BBEL). Service to locations not within a prescribed Serving Area are served by the Broadband Exchange Line - Extension (BBEL-E) in addition to the Customer Connection and BBEL.

The Broadband Exchange Line is currently offered at speeds of 56/64 Kbps, 128 Kbps, 1.536 Mbps, fractional T-1 speeds (e.g. 256 Kbps) and at DS-3 (44.210 Mbps). The Fast Packet Customer Connections are offered at the same speeds via tariffs filed in all nine states of BellSouth.

1.2. Description of Service

1.2.1. Frame Relay Service

Frame Relay Service is connection oriented packet mode service based on the X.25 LAP-D standards. Frame Relay provides the user access links with speeds from 56/64 Kbps to 44.210 Mbps. With Frame Relay technology, data is taken from the end-device terminal, packaged into variable length frames, and transported through the network on predefined logical channels. The frame's format consists of an opening flag followed by a two octet address field, a user data field, a frame check sequence, and a closing flag. Improved performance over existing packet switching is achieved with Frame Relay by elimination of link-by-link error monitoring.

Frame Relay offers one version of service, at present, Permanent Virtual Circuits (PVC). The PVC Frame Relay service allows the user to set up a series of point-to-point virtual circuits through the network. A PVC is provisioned via a service order when service is established and taken down when service is discontinued.

From a technical perspective, the greatest strength of Frame Relay is that much of the error correction and control information overhead of the X.25 protocol is eliminated. Since PVC Frame Relay establishes a "nailed-up" connection between two locations in the network, large variable length frames can be sent back and forth without as much control information and validation at intermediate nodes. Traditional X.25 packet traffic consists of small fixed length packets which require a great deal of checking and validation at every intermediate node to ensure that all elements are delivered and re-compiled in the correct sequence. Frame Relay should provide greater network throughput and reduced delay by reducing overhead and link level processing at intermediate nodes.

Almost any protocol can be carried transparently by Frame Relay service. If protocol conversion is required, the conversion is performed by the customer's end-device terminal.

1.2.2. Connectionless Data Service

Connectionless Data Service (CDS) is a low to medium speed (56 Kbps to 45 Mbps) public packet switched service which is used to extend Local Area Network (LAN) characteristics over a wide area.. The term "connectionless" means that each packet is addressed and routed separately without first establishing a network connection. The customer's equipment must support the Level 3 functions of SMDS using the Data Exchange Interface (DXI) protocol to communicate with the CDS switch. An SMDS-equipped DTE will provide the SMDS Level 3 functions and support the DXI protocol. To support DXI, most DTE (e.g. routers) only require a software upgrade. For transport via CDS, user data is encapsulated in packets called SMDS Interface Protocol (SIP) Level Three Protocol Data Units. (L3_PDU). Each L3_PDU is addressed and switched independently, without a previous establishment of a network connection or a virtual call. Each L3_PDU may contain up to 9,188 octets of information. This allows CDS packets to encapsulate entire packets from most LANs (e.g. Ethernet, Token Ring, FDDI). To be viable, CDS must appear "transparent" to the end-user.

The DXI protocol's overhead is 4 bytes per data frame, whereas the overhead on SMDS 802.6 links is 9 bytes for every 44 bytes of data, which provides approximately 20% savings in overhead.

Initially, CDS is expected to be largely used for LAN-to-LAN interconnection. Therefore, it must satisfy the applications already supported on LANs. Some example applications which could be supported are: Desktop Publishing and Computer-Aided Design, Engineering and Manufacturing (CAD/CAE/CAM). The end-users of these applications should experience communications fast enough and with small enough delay that they do not perceive performance degradation for functions performed remotely rather than within the LAN environment.

1.2.3 Broadband Exchange Line Service

Broadband Exchange Line Service provides the customer with a connection from the customer's Serving Wire Center to the Network Serving Area for a high speed switched service - e.g., the CDS Network Serving Area. As stated earlier in this Pricing Plan/Strategy, the Network Serving Area is designated by the Company and is comprised of Wire Centers called Serving Area Points. The Broadband Exchange Line is the element which connects the customer premises with the customer's Serving Wire Center. If the customer's Serving Wire Center is not a Serving Area Point, the Broadband Exchange Line Extension is needed to connect the Serving Wire Center with the closest Serving area Point.

The Fast Packet Option of Broadband Exchange Line Service is currently only available for use with either Frame Relay Service, CDS, or BVCS (BellSouth Video Conferencing Service). The Fast Packet option may only be used to connect a customer premises with the Frame Relay, CDS, or BVCS Network Serving area. The Fast Packet Option transmits digital data signals at either 56 Kbps, 64 Kbps, 128 Kbps (2B1Q), 1.536 Mbps, or 44.210 Mbps..

There are basically two rate elements available - the Broadband Exchange Line-Fast Packet Option and the Broadband Exchange Line Extension-Fast Packet Option. The Extension element is also available at different mileage bands by state, offered on a flat rate basis. With the 128 Kbps (2B1Q) Broadband Exchange Line, the 1.536 Mbps Broadband Exchange Line Extension must be used if an Extension is required.

The Broadband Exchange Line-Fast Packet Option may be used in association with MegaLink® channel service. As a result, a feature activation rate element for Broadband Exchange Line Service has been added to MegaLink® channel service in Section B7.3 of the Private Line Services Tariff. Verbiage is included in the Broadband Exchange Line Service

tariff and in the SMARTRing[®] service tariff (B7.7) to allow Broadband Exchange Line service to "ride" over SMARTRing[®] service as a 1.536 Mbps channel.

1.3 Pricing Structure

FRS and CDS are priced as flat-rated customer connections. The pricing structure is connection speed specific. Optional features of each service are also flat-rated.

1.4 Deployment Schedule

FRS and CDS are available for resale in all LATAs of BellSouth.

2. Pricing Plan / Strategy

This Pricing Plan is divided into two sections. The first section describes the GSST offerings - Frame Relay Service, Connectionless Data Service (CDS), and Broadband Exchange Line Service. A second section contains some miscellaneous information on these offerings.

2.1. GSST OFFERINGS

All of the offerings described in this portion of the Pricing Plan - Frame Relay Service, CDS, and Broadband Exchange Line Service - are available under payment plans. All three have the same payment periods - Month to Month, 12 to 36 Months, and 37 to 60 Months. The Fast Packet Services Payment Plan available in A40.10 provides the terms and conditions for these payment plans.

2.1.1. Frame Relay Service (A40.1)

Frame Relay Service is available with multiple Customer Connection to Frame Relay Service rate elements each operating at a different transmission speed of either 56 Kbps, 64 Kbps, 112 Kbps, 128 Kbps, 192 Kbps, 256 Kbps, 320 Kbps, 384 Kbps, 448 Kbps, 512 Kbps, 576 Kbps, 640 Kbps, 704 Kbps, 768 Kbps, 1024 Kbps, 1152 Kbps, 1.536 Mbps, or 44.210 Mbps. The customer accesses Frame Relay Service over digital facilities operating at transport speeds of either 56 Kbps, 64 Kbps, 128 Kbps (2B1Q), 1.536 Mbps, or 44.210 Mbps, matching the Customer Connection speed. Broadband Exchange Line Service, which is described later in this pricing plan/strategy, will provide this customer access.

The Customer Connection rate element includes the interface on the Frame Relay switch, the facility from the customer's Serving Area Point to the switch, and one DLCI. (Certain wire centers have been designated by the Company as Serving area Points for Frame Relay Service. These Serving Area Points comprise the Frame Relay Service Network Serving area. (More explanation on the significance of Serving Area Points is included in the Broadband Exchange Line Service portion of this Pricing Plan.)

The Customer Connection is required for Frame Relay Service but other rate elements are offered as features to be tailored to a customer's specific need(s). For example, if a customer requires multiple PVCs to connect one location to multiple locations, additional DLCIs per Customer Connection are available, each offered at an additional charge. (As mentioned previously, the first DLCI on a Customer Connection is included with the Customer Connection charge.)

Another feature is Committed Information Rate (CIR). The customer must select a CIR value for each DLCI, although a selected value of 0 Kbps is offered at no charge. The Committed Information Rate is the transmission rate at which the Frame Relay Service network is guaranteed to transmit information under normal conditions. The customer may choose to transmit information above the selected CIR, but information sent above the selected CIR is marked "discard eligible" (DE) and could be discarded if congestion occurs in the network. For example, all information sent when a CIR of 0 has been selected is marked DE; however, if no congestion is incurred, the information will be sent through the network. Any information sent at equal to or below the selected CIR will not be marked DE and, thus, cannot be discarded. The CIR selected cannot exceed the transmission speed of the facility.

The third feature available is the Inter-Network Serving Area Link. Should customer demand warrant, the Company may elect to interconnect two Frame Relay switches located in one LATA but in different Network Serving Areas. Wherever this inter-network serving area connection is established, a customer may use it by subscribing to an Inter-Network Serving Area Link and an associated CIR. This is only available in states where conditions warrant - Florida, Georgia, Kentucky, Louisiana, Mississippi, and Tennessee.

The final rate element available is the Feature Change Charge. This element is applied whenever a customer chooses to change a single feature within a single Frame Relay network configuration on a single switch within a single jurisdiction. Although multiple changes may be caused by such a request, only one Feature Change Charge will apply.

2.1.2. Connectionless Data Service (CDS) (A40.4)

Like Frame Relay Service, CDS has Customer Connections available operating at the same speeds as the Frame Relay Customer Connections. CDS also relies on Broadband Exchange Line Service for customer access.

Identical to Frame Relay Service, the Customer Connection to CDS rate element includes the interface on the CDS switch and the connection from the customer's Serving Area Point to the switch. Also included in the CDS Customer Connection is the first Address.

Several features are available with CDS at additional charges. As mentioned previously, with each Customer Connection the customer receives an address at no additional charge. Should the customer require more than one Address to be associated with a Customer Connection, i.e., Multiple Addresses, the customer may subscribe up to a maximum of fifteen more Addresses. Multiple Addresses 2 through 16 are each offered at an additional charge.

The two Screening Table features available - Individual and Group Address Screening - provide for screening by the CDS switch to validate that information intended for a given location is only received by that location and to validate that a given location transmits information only to authorized receiving locations. These features are intended to safeguard the customer's transmission of data while over a public network.

The Group Address List feature allows the customer to send the same data from a single source to up to 128 recipients simultaneously.

On a per Customer Connection basis, the customer may subscribe to a CDS Network Serving Area Juncture. This affords the customer the capability of transporting data between CDS switches located in the same LATA but in different CDS Network Serving Areas. It is available in only Florida, Georgia, Kentucky, Louisiana, Mississippi, and Tennessee.

Again, like Frame Relay Service, the CDS tariff includes a Feature Change Charge for modification of features subsequent to service establishment.

2.1.3 Broadband Exchange Line Service (A40.5)

The Broadband Exchange Line Service subsection of the Tariff is being created to provide a location for a family of exchange facilities which will provide customers local access to high speed frame or cell-based switched services. Initially the Fast packet Option of Broadband Exchange Line Service is currently the only facility available. Later other options will be introduced as needed.

Broadband Exchange Line Service provides the customer with a connection from the customer's Serving Wire Center to the Network Serving Area for a high speed switched service - e.g., the CDS Network Serving Area. As stated earlier in this Pricing Plan/Strategy, the Network Serving Area is designated by the Company and is comprised of Wire Centers called Serving Area Points. The Broadband Exchange Line is the element which connects the customer premises with the customer's Serving Wire Center. If the customer's Serving Wire Center is not a Serving Area Point, the Broadband Exchange Line Extension is needed to connect the Serving Wire Center with the closest Serving area Point.

The Fast Packet Option of Broadband Exchange Line Service is currently only available for use with either Frame Relay Service, CDS, or BVCS (BellSouth Video Conferencing Service). The Fast Packet option may only be used to connect a customer premises with the Frame Relay, CDS, or BVCS Network Serving area. The Fast Packet Option transmits digital data signals at either 56 Kbps, 64 Kbps, 128 Kbps (2B1Q), 1.536 Mbps, or 44.210 Mbps..

There are basically two rate elements available - the Broadband Exchange Line-Fast Packet Option and the Broadband Exchange Line Extension-Fast Packet Option. The Extension element is also available at different mileage bands by state, offered on a flat rate basis. With the 128 Kbps (2B1Q) Broadband Exchange Line, the 1.536 Mbps Broadband Exchange Line Extension must be used if an Extension is required.

The Broadband Exchange Line-Fast Packet Option may be used in association with MegaLink® channel service. As a result, a feature activation rate element for Broadband Exchange Line Service has been added to MegaLink® channel service in Section B7.3 of the Private Line Services Tariff. Verbiage is included in the Broadband Exchange Line Service tariff and in the SMARTRing® service tariff (B7.7) to allow Broadband Exchange Line service to "ride" over SMARTRing® service as a 1.536 Mbps channel.

3 Installation Intervals

Normal Installation Intervals will apply to Fast Packet Services that are resold. The interval required for a new Fast Packet Customer Connection and BBEL is ten days from the Application Date. The ten day requirement is detailed below:

Service Inquiry to Application Date - 2 Days

Application Date to Service Order Issue Date - 1 Day

Service Order Issue Date to Loop Assignment Make-up - 1 Day

Loop Assignment Make-up to Records Issue Date - 2 Days

Records Issue Date to Design Verified Date - 1 Day

Design Verified Date to Wired and Office Tested - 2 Days

Wired and Office Tested to Frame Continuity Date - 0 Days

Frame Continuity Date to Plant Test Date - 1 Day

Plant Test Date to Due Date - 2 days

Orders issued to change features such as CIR or adding or deleting DLCs will require only 2 days.

**4. RESALE FAST PACKET METHODS & PROCEDURES
VERSION 1.1**

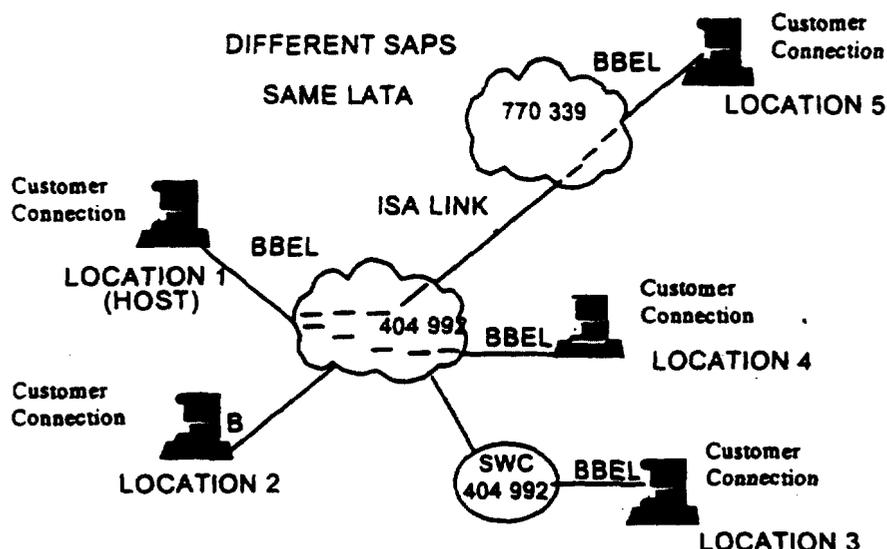
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1.0 DESCRIPTION

- 1.1 Frame Relay is a connection oriented packet mode service based on the X.25 LAPD standards. The data is packaged into variable length frames which are forwarded through the network using pre-defined logical links. There is no link by link error monitoring on Frame Relay.
- 1.2 Frame Relay service utilizes the Cascade 9000 model fast packet switch.
- 1.3 Permanent Virtual Circuits (PVCs) are normally established at the time the customer subscribes to the service.
- 1.4 The PVC Frame Relay service allows the user to set up a series of point-to-point virtual circuits through the network. A PVC is provisioned via a service order when service is established and taken down when service is discontinued.
- 1.5 The PVC is activated by a translations function performed in the switch connecting two physical circuits together at tariffed speeds of 56 Kbps, 64 Kbps, 1.536 Mbps, 128 Kbps 2B1Q and 44.2.10 Mbps.
- 1.6 These two physical circuits will be two non-access circuits.
- 1.7 The Frame Relay standard specifies an address field called the Data Link Connection Identifier (DLCI). The DLCI specifies a connection. When any two DLCIs are mapped together in the switch, a PVC is created.
- 1.8 There are two billing options for Frame Relay service. The customer subscribe to month-to-month service or to the Fast Packet Special Pricing Plan. See the Billing Section of this standard for additional information.
- 1.9 The applicable tariff is the General Services Subscribers Tariff (GSST).
- 1.10 These configurations are connections from a customer's premise to the Cascade switch.

- 1.11 A customer's network may be made up entirely of end user connections and may never leave the LATA. Hence, a carrier (or access order) connection would not be involved. Below is a diagram that depicts what a customer's non-access network could look like:



FACILITIES

- 1.12 Frame Relay can use either a Broadband Exchange Line (BBEL) facility or MegaLink Channel Service for its transmission medium. The available transmission speeds are 56 Kbps, 64 Kbps, 128 Kbps, 1.536 Mbps or 44.210 Mbps.
- 1.13 64 Kbps and 1.536 Mbps facilities for Frame Relay service must be engineered with Extended Super Frame (ESF) and Bipolar Eight Zero Substitution (B8ZS).

CUSTOMER CONNECTION

- 1.14 The Customer Connection provides the customer with an interface to the Frame Relay Service network. The interface receives the data frame from the customer's device and verifies that the DLCI is valid before relaying the frame to the destination.
- 1.15 Included in the Customer Connection are the customer's termination on the Frame Relay Service switching equipment, the transport from the Serving Area Point to the switching equipment and the first DLCI.
- 1.16 These interfaces connect to the Frame Relay Service network at transmission speeds of 56/64 Kbps, 128 Kbps, 1.536 Mbps or fractional speeds of 128, 192, 256, 320, 384, 448, 512, 576, 640, 704, 768, 1024, 1152 Kbps.

BROADBAND EXCHANGE LINE - FAST PACKET OPTION (BBEL-FPO)

- 1.17 The BBEL-FPO is used to connect a customer's premise (fast packet or video equipment) to their Serving Wire Center (SWC). The BBEL-FPO is available at either 56/64 Kbps (DS-0), 1.536 Mbps (DS-1) or 44.210 Mbps (DS-3).

- 1.18 The BBEL-FPO is available as a transport element for Frame Relay, Connectionless Data Service (CDS) and Multipoint Video Conferencing Service (MVCS). BROADBAND EXCHANGE LINE EXTENSION - (BBEL "E")
- 1.19 The Broadband Exchange Line Extension BBEL "E" is the transport element required to extend Frame Relay (CDS and MVCS) to customer locations outside the Fast Packet/MVCS Serving Area Point (SAP), based on InterOffice Facility (IOF) design and service requirements. The BBEL "E" connects the BBEL at the customer's Serving Wire Center to the closest SAP. 56/64 Kbps BBEL "E's" consist of one DS-0 time slot in a BellSouth T1 Carrier Systems originating in the customer's SWC and terminating in a SAP. 1.544 Mbps BBEL "E's" originate at the DSX-1 cross-connect field in the customer's SWC and terminate in either a DSX-1 cross-connect field or a Flex DCS in a SAP, based on IOF design and service requirements.
- 1.20 When the BBEL-FPO is provided in association with MegaLink channel service to connect customer locations to Frame Relay service, the BBEL "E" may be used. This occurs if the Central Office where the channelization exists for the MegaLink is not a Frame Relay Serving Area Point, the a BBEL "E" is required to connect the CO where the channelization occurs to the closest SAP and Cascade switch.

SERVING AREA POINT(SAP)

- 1.21 Frame Relay is offered through a SAP concept. Certain Company Central Offices are equipped with a Cascade switch and designated by the Company as a SAP for Frame Relay Service. A customer accessing the service network whose serving wire center is not a designated SAP, will incur local channel charges plus interoffice channel charges from the customer's serving wire center to the appropriate serving area point.
- 1.22 In GA, MS, LA, FL, KY and TN, two options are offered for a customer who desires to send data between two Frame Relay serving areas within the same LATA. They are:
- Option 1: The customer subscribes to additional Customer Connections and BBEL extensions. These additional rate elements will be used solely to transport this customer's data traffic between affected Frame Relay Network Serving Areas.
 - Option 2: The customer subscribes to bandwidth on "company established facilities". The customer purchases an InterNetwork Serving Area (ISA) link between the two switches and by specific CIR bandwidth between 0 and 1.544Mbps. Each of these links has an associated CIR. One PVC exists between both customer premises through the Link. All CIRs on this PVC must have the same value. Charges for the ISA link are applied as follows:
 - the ISA link establishment is charged for each end of the link,
 - the ISA link CIR is charged at each end of the link,
 - no DLCI charges apply.

Note: For additional information on SAP to SAP connections see Non-Access Service Order Exhibits 5 and 6 in Section 9 of this document.

- 1.23 For the states of AL, NC and SC there is presently only one switch per LATA and the connection of SAPs is not applicable.
- 1.24 Billed rate elements that are standard for non-access Frame Relay, end user to Cascade switch connection (end user and switch are in same SWC as SAP) are:
- Customer Connection
 - BBEL
 - Optional Features (Additional DLCI and CIR)
- (Note: These are Frame Relay rate elements only. Additional rate elements (e.g. EUCL and handicap service charge) will be billed, business as usual.
- 1.25 Additional Frame Relay rate elements such as BBEL Extension and ISA link may be applicable based on the customer's geographic location.

2.0 RESTRICTIONS

- 2.1 The maximum number of DLCIs per Customer Connection depends on the characteristics of the customer's data traffic. However, a maximum of 250 DLCIs may be established across a single Customer Connection.
- 2.2 The maintenance window (for software updates to the network) will be performed during the time period between 2:00A.M. and 4:00A.M. (EST) on any given Wednesday or Sunday morning. The company will make every reasonable effort to provide advance notice to those customers likely to be severely affected by such maintenance work.
- 2.3 The minimum service period is one month.
- 2.4 All CLEC ordered Frame Relay requests non-access, adds, disconnects and changes, will utilize the SI process. This is the case even if "PVCs only" are being ordered. (Disconnects will not require a SI responses.)
- 2.5 Frame Relay requests are excluded from Customer Desired Due Date (CDDD) guidelines and Service Installation Guarantee (SIG).
- 2.6 Expedite procedures will apply when a customer requests less than a 10 day interval for Frame Relay when a physical circuit is being ordered.

3.0 GENERAL

3.1 ACRONYMS/ABBREVIATIONS/DEFINITIONS

CCNA	Customer Carrier Name Abbreviation	The three character code that designates who is ordering the access service.
DLCI	Data Link Channel Identifier	A numeric value given to one end of a PVC.
FOC	Firm Order Confirmation	
CLEC	Competitive Local Exchange Carrier	