1 TERMS AND CONDITIONS

A. All terms and conditions relating to the individual service offerings found in this Guidebook as specified on the List of Services (Part 2 Section 2) can be found in the Guidebook or tariff schedule indicated next to that service. All of these terms and conditions are applicable to the provisions of service from this tariff.

B. All rates and charges may be adjusted at a later date.

1.1 GENERAL

Broadband Fast Packet Services provide high speed connectivity over a wide geographic area. Fast Packet services use digital transmission facilities and switching technology to provide high speed information transfers for users with large bandwidth requirements.

Broadband Fast Packet technology divides data into blocks (packets) with fixed maximum lengths. These packets are transported through the Company's network. Each packet contains the necessary information to ensure accurate data transfer to destination.

Broadband Fast Packet service is a networking technology capable of transmitting data, digitized voice and digitized image information, using statistical multiplexing, in both connection-oriented and connection less transfer modes. Service is provided where available facilities and equipment exist.

Service is provided from the Company's network and may terminate at a customer premises located in Verizon's Telephone Company territory at rates and charges specified elsewhere in this Guidebook.

1 TERMS AND CONDITIONS (Cont'd)

1.2 RATE REGULATIONS

This section contains the specific regulations governing the rates and charges that apply for Broadband Fast Packet Access Services, and are supplemented by and in addition to the other applicable regulations, rates and charges specified in other sections of this Guidebook and tariff schedules.

A. TYPES OF RATES AND CHARGES

There are two types of rates and charges. These are monthly and nonrecurring charges. The rates and charges are described as follows:

1. Monthly Rates

Monthly rates are fixed recurring rates that apply each month or fraction thereof that a Broadband Fast Packet Access Service is provided. For billing purposes, each month is considered to have 30 days.

For ATM Cell Relay Service monthly rates are applicable for IAR, PVC and CBR.

a. Minimum Period

ATM Cell Relay Service is provided for a minimum period of one month. When service is disconnected prior to the expiration of the minimum period, monthly charges are applicable for the balance of the minimum period.

If service is disconnected after the minimum period, monthly charges will be based on the actual number of days the service is furnished. In order to determine the charges for a fractional portion of a month, every month is considered to have 30 days.

1 TERMS AND CONDITIONS (Cont'd)
1.2 RATE REGULATIONS (Cont'd)
 A. TYPES OF RATES AND CHARGES (Cont'd)

   2. Nonrecurring Charges

      Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation
      or change to an existing service). The types of nonrecurring charges that apply for Fast
      Packet Service are: installation of service, installation of optional features and functions, and
      network change charges.

    a. Installation of Service

      Nonrecurring charges apply to each service installed. The nonrecurring charges for the
      installation of service are set forth for each Fast Packet Service.

      Nonrecurring charges for ATM Cell Relay Service are applicable for installation of each
      IAR and PVC rate element except when the customer is upgrading to a higher
      transmission speed (i.e., 384 kbps to 768 kbps) within the same interface.

1 TERMS AND CONDITIONS (Cont'd)
1.2 RATE REGULATIONS (Cont'd)
 A. TYPES OF RATES AND CHARGES (Cont'd)
   2. Nonrecurring Charges (Cont'd)

   b. Installation of Optional Features and Functions

      Nonrecurring charges apply for the installation of optional features and functions available
      with Fast Packet Services. The charge applies whether the feature or function is installed
      with the initial installation or at any time subsequent to the installation of the service.

      The nonrecurring charges for the installation of Optional Features and Functions are set forth
      in Optional Features and Functions are set for each Fast Packet Service.

   c. Network Change Charge

      Changes to existing Frame Relay Service, ATM Cell Relay and Switched Multimegabit Data
      Service are considered to be network changes. Network Change Charges apply per
      occurrence for changes made to existing Frame Relay Service, ATM Cell Relay Service and
      Switched Multimegabit Data Service network elements associated with each access service
      connection.

1 TERMS AND CONDITIONS (Cont'd)
1.2 RATE REGULATIONS (Cont'd)
 A. TYPES OF RATES AND CHARGES (Cont'd)
    2. Nonrecurring Charges (Cont'd)
     c. Network Change Charge (Cont'd)

A change to existing Frame Relay Service, ATM Cell Relay and Switched Multimegabit Data Service that cannot be supported by the bandwidth of the access service connection will require a new access service connection. Installation of service nonrecurring charges will apply.

The following changes to existing ATM Cell Relay Service Fast Packet Services are considered to be network changes and one Network Change Charge applies per order for:

- addition of Multicast Service for host node or reconfiguration of Multicast Service for a leaf node;

- any changes to existing Quality of Service (QoS);

- reconfiguration of an existing Permanent Virtual Connection (PVC), unless another PVC is being ordered or deleted; or

- changes to existing ATM Cell Relay Service to any higher transmission speed within the same interface.

2 FRAME RELAY SERVICE

2.1 GENERAL DESCRIPTION

A. BASIC SERVICE DESCRIPTION

Frame Relay Service (FRS) is a high speed, statistically multiplexed, packet data service that allows multiple customer locations to be interconnected. The use of intelligent customer-provided equipment that is compatible with the Company-provided service, digital transmission services, and the ITU protocol allows the Company to provide data packet, frame, communications.

Customer-provided equipment accumulates data in a format suitable for transmission and provides circuit error and congestion control. Connection to the FRS port is via a Pacific Bell-provided Special Access Service or an Expanded Interconnection Service Cross Connect (EISCC), as described in Pacific Bell's Schedule Cal.P.U.C. No. 175-T Section 7 and 16, respectively or another compatible non-Company facility. The connecting service is in addition to the FRS. A Special Access Channel Termination or EISCC for the connecting service will apply. Access is available to the FRS line-side port at 56 Kbps, 128 Kbps, 384 Kbps, 1.536 Mbps or 37 Mbps and to the trunk-side port at 1.536 Mbps or 37 Mbps.

Data communications between FRS ports is provided over software defined connections with addresses identified by Data Link Connection Identifiers (DLCIs). The DLCIs identify address information and route the customer's data over a communications path called a permanent virtual connection (PVC).

2 FRAME RELAY SERVICE (Cont'd)
2.1 GENERAL DESCRIPTION (Cont'd)
 A. BASIC SERVICE DESCRIPTION (Cont'd)

    Multiple PVCs can be established from a port for communications over the digital transmission facilities of the FRS network. A separate PVC must be established to each location that the customer desires to transmit data.

    Utilizing statistical multiplexing, the Company's FRS enables customers to allocate bandwidth for the permanent virtual connections as needed up to the maximum bandwidth of the FRS port. The following port speeds are available: 56 Kbps, 128 Kbps, 384 Kbps, 1.536 Mbps or 37 Mbps.

    FRS complies to the frame relay standards approved by the American National Standards Institute (ANSI) and International Telecommunications Union (ITU), formerly CCITT (Consultative Committee International Telephone and Telegraph). Customer-provided equipment must comply with these standards.

    Frame Relay Service is available at Company locations identified in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC NO. 4.

2 FRAME RELAY SERVICE (Cont'd)
2.1 GENERAL DESCRIPTION (Cont'd)
 A. BASIC SERVICE DESCRIPTION (Cont'd)

The customer must provide to the Company a current local contact and telephone contact number that is readily accessible 24 hours a day, 7 days a week. The customer's local contact will act as the point contact for inquiries, trouble reports, and security management involving the service configuration.

 B. OPTIONAL FEATURES AND FUNCTIONS

 1. Multicast Service

Multicast service provides one way communication function between an originating point and multiple end-points in those central offices that are suitably equipped. A data stream originated by the sending customer location is sent to each of the end-points predesignated by the customer. A data stream originated by the sending customer is copied by the Frame Relay Service network and sent to each of the multipoints.

 2. Frame Relay/ATM Service Interworking (FR/ATM SI)

FR/ATM SI allows customers to create permanent virtual circuits (PVCs) that span a frame relay User-to-Network Interface (UNI) and terminate on an asynchronous transfer mode (ATM) UNI. A customer with Frame Relay Service will be able to establish PVCs to a customer of ATM Cell Relay Service, thereby interoperating with both technology platforms.

2 FRAME RELAY SERVICE (Cont'd)

2.2 TECHNICAL SPECIFICATIONS:

> PUB L-780079-PB
> Issue 2, October 1993
>
> ANSI T1.617, Signaling Specifications for Frame Relay Bearer Service, 1991
>
> Frame Relay Forum, Network to Network Interface, Phase I Implementation Agreement.
>
> ANSI T1.618, Core Aspects of Frame Protocol for use with Frame Relay Bearer Service
>
> ITU (formerly CCITT) Q.922 Recommendation "ISDN Data Link Layer Specification for Frame Mode Bearer Services."
>
> ITU (formerly CCITT) Q.933 "DSS1`Signaling Specifications for Frame Mode Basic Call Control."
> ITU, Geneva, 1992

2 FRAME RELAY SERVICE (Cont'd)

2.3 RATE ELEMENTS DESCRIPTION

 A. FRS USER TO NETWORK INTERFACE (UNI) PORT

The User to Network Interface (UNI) port provides a line-side connection to the Company's FRS, see technical references in Section 3.2. A connecting Company Special Access Service or EISCC, Expanded Interconnection Service, ordered from the Company's Schedule Cal.P.U.C. No. 175-T Section 7 or 16, respectively, or another compatible non-Company facility must be provided in addition to the FRS port. The Company's Special Access Services used for FRS connections include: Advanced Digital Network Service (ADN), High Capacity Services and SONET Services, as described in the Company's Schedule Cal.P.U.C. No. 175-T Section 7. Connection via an EISCC is provided as described in the Company's Section 16. A Special Access Channel Termination or EISCC for the connecting service will apply.

The UNI port is available at varying bandwidth speeds: 56 Kbps, 128 Kbps, 384 Kbps, 1.536 Mbps and 37 Mbps.

2 FRAME RELAY SERVICE (Cont'd)
2.3 RATE ELEMENTS DESCRIPTION (Cont'd)

 B. FRS NETWORK TO NETWORK INTERFACE (NNI) PORT

The Network to Network Interface (NNI) port provides a trunk-side connection, for connecting the customer's frame relay switch to the Company's FRS, see technical references in Section 3.2. A connecting Company Special Access Service or Expanded Interconnection Service Cross Connect (EISCC), must be ordered from the Company's Schedule Cal.P.U.C. No. 175-T, Section 7 or 16, respectively, or another compatible non-Company facility must be ordered in addition to the FRS. The Company's Special Access Services used for FRS connections include: Advanced Digital Network Service (ADN), High Capacity Services and SONET Services, as described in Section 7 of the Company's Schedule Cal.P.U.C. No. 175-T. Connection via an EISCC is provided as described in Section 16 of the Company's Schedule Cal.P.U.C. No. 175-T. A Channel Termination or EISCC for the connecting service will apply.

The NNI port is available at 1.536 Mbps and 37 Mbps.

2 FRAME RELAY SERVICE (Cont'd)
2.3 RATE ELEMENTS DESCRIPTION (Cont'd)

   C. DATA LINK CONNECTION IDENTIFIERS (DLCI)

     1. The Data Link Connection Identifier is one of a minimum of two software-defined address points
       required to establish a permanent virtual connection (PVC). A PVC (with at least one DLCI at each
       end) is the dedicated communications path through the FRS.

   D. OPTIONAL FEATURES:

     1. Traffic detail, per port:

       The charge per port for customers to obtain information on FRS traffic, such as counts of data
       packets sent and received on each of the customer's channel terminations.

     2. Frame Relay/ATM Service Interworking

       The per associated ATM port size and number of PVCs charge to establish interconnection between
       Frame Relay and ATM Cell Relay Services.

   E. CHANGE CHARGES:

     1. Network Adds or Changes:

       The per port charge for a customer to increase or rearrange the FRS UNI port bandwidth. (Options
       are: 56 Kbps, 128 Kbps, 384 Kbps or 1.536 Mbps). Also, the per port charge when a customer adds,
       rearranges, or changes DLCIs. A change charge applies to the addition/deletions of PVCs.

2 FRAME RELAY SERVICE

2.4 RATES

The following rates and charges apply to intraLATA FRS in those LATAs where technical capability is available.

A. FRS ACCESS LINKS (LOCAL LOOPS)

The rates and charges for one DS0 56 Kbps access link and for one DS1 (1.544 Mbps) access link Special Access Services are found in Schedule Cal.P.U.C. No. 175-T, 7.5.8,(B) and 7.5.8,(C) respectively.

	Installation Charge	Monthly Rate	USOC
B. FRS ACCESS PORT TERMINATION - PER PORT (includes first DLCI)			
56 Kbps	$355.00	$ 71.00	FR56K
128 Kbps	355.00	142.00	FR128
384 Kbps	355.00	378.00	FR384
1.536 Mbps	355.00	473.00	FR154
C. DLCI - PER PORT, RATE FOR EACH DLCI			
1	None	None	RELAY
2-6	None	15.00	RELAY
7-11	None	10.00	RELAY
12 and above	None	5.00	RELAY
D. OPTIONAL FEATURE			
Traffic Detail	50.00	15.00	FRTDL

2. FRAME RELAY SERVICE (Cont'd)
2.4 RATES (Cont'd)

	USOC	Monthly Rate	Nonrecurring Charge
E. FRS USER TO NETWORK INTERFACE (UNI) PORT			
- per Port			
UNI (ADN):			
56 Kbps	FC56K	$ 75.00[1]	$ 375.00
UNI (DS1):			
128 Kbps	FC128	150.00[1]	375.00
384 Kbps	FC384	400.00[1]	375.00
1.536 Mbps	FC154	500.00[1]	375.00
F. FRS NETWORK TO NETWORK INTERFACE (NNI) PORT			
- per Port			
NNI:			
1.536 Mbps	CPNN1	500.00[1]	375.00

/1/ Rates subject to change.

2. FRAME RELAY SERVICE (Cont'd)
2.4 RATES (Cont'd)

	USOC	Monthly Rate
G. DATA LINK CONNECTION IDENTIFIER (DLCI)		
a. per DLCI - per port		
First	RELAC	None
Next 2-6 each	RELAC	$15.00[1]
Next 7-11 each	RELAC	10.00[1]
#12 and additional each	RELAC	5.00[1]

H. FRS OPTIONS

	USOC	Monthly Rate	Nonrecurring Charge
1. Traffic Detail	FCTDL	$15.00[1]	$50.00[1]

	USOC		
2. Network Adds or Changes			
Change Port Speed	NWCFC	50.00[1]	
or			
Add/rearrange/change	DLCI		

/1/: Rates subject to change.

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS)

3.1 GENERAL DESCRIPTION

 A. BASIC SERVICE DESCRIPTION

Switched Multimegabit Data Service (SMDS), is a high speed data service that offers broadband switching over a wide geographic area. SMDS can be provided with either a line side or trunk side interface.

Customer premises are connected to the SMDS port via a Company Special Access Service or Expanded Interconnection Service Cross Connect, as described in the Company's Schedule Cal.P.U.C. No. 175-T Section 7 and 16, respectively, or another compatible non-Company facility. The connecting facility must be ordered in addition to the SMDS. At least one SMDS address is assigned to each DS1 or DS3 service accessing the SMDS network. A maximum of sixteen addresses can be assigned to each DS1 or DS3 and a maximum of two addresses can be assigned to each DS0.

The customer must provide to the Company a current local contact and telephone contact number that is readily accessible 24 hours a day, 7 days a week. The customer's local contact will act as the point of contact for inquiries, trouble reports, and security management involving the service configuration.

The SMDS network will only transmit information between authorized users within a customer-defined closed user-group. A closed user group is a set of source and destination addresses allowed to exchange data traffic in the SMDS network.

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS) (Cont'd)

3.2 TECHNICAL SPECIFICATION

SMDS technical specifications from the Bell Communications Research, Inc. include the following references:

TR-TSV-000772, Issue 1, Effective date May 1991.

TR-TSV-000773, Issue 1, May 1991, Revision 1, January 1993,
effective date March 1993.

TR-TSV-001060, Issue 1, May 1991, Revision 2, March 1993,
effective date March 1993.

TR-TSV-001062, Issue 1, March 1993, effective date March 1993.

TR-TSV-001064, Issue 1, December 1992, effective date December 1992.

TR-TSV-0001239, Issue 1 effective 2.93
SIG-TS-001/1991, Issue 1 effective 10.91

SMDS technical specifications from the Company
include the following references:

PUBL-780090-PB/NB, Issue 1, August 1992, effective date August 1992

SMDS technical specifications may be obtained by writing to the addresses listed below:

These publications may be obtained from:

SBC Help Desk and Document Center   (517) 788-6872

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS) (Cont'd)

3.3 RATE ELEMENTS DESCRIPTION

 A. SMDS LINESIDE INTERFACE

The SMDS Lineside Interface (LI) port is used to connect the customer to the Company's SMDS Network as defined in Bellcore Technical References TR-TSV-0001239, TR-TSV-000772 or TR-TSV-000773. Connection to the SMDS LI port is via a the's Company Special Access Service or an Expanded Interconnection Service Cross Connect (EISCC) ordered from the Company's Schedule No. 175-T, Section 7 or 16, respectively, or another compatible non-Company facility. The Company's Special Access Services used for SMDS connections include: Advanced Digital Network (ADN), High Capacity Services and SONET Services. The SMDS LI port is available at the 1.17 Mbps speed when connected by the DS1 Special Access High Capacity Service and at the 4 Mbps, 10 Mbps, 16 Mbps, 25 Mbps, and 34 Mbps speeds when connected by a DS3 Special Access High Capacity Service. The SMDS LI port is available for the Digital Data Service DS0 and Advanced Digital Network DS0.

  1. Optional Features and Functions

   a. Group Addressing

Group addressing allows a single source to send the same data to up to 128 recipients simultaneously. Nonrecurring charges and monthly rates for Group Addressing are charged per group address.

   b. Customer Network Information

Customer Network Information permits users to obtain information on data traffic activities, including counts of data packets sent and received from each of the customer's access links.

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS) (Cont'd)
3.3 RATE ELEMENTS DESCRIPTION (Cont'd)
 A. SMDS LINESIDE INTERFACE (Cont'd)

  2. Changes

     Charges for changes will be made on a per service order basis. Changes include additions or
     deletions in group member addresses, additions or deletions in Closed User group membership,
     and upgrades in class of service of 4 Mbps up to the maximum of 34 Mbps.

  B. SMDS TRUNK-SIDE INTERFACE

     A SMDS Trunk-side Interface (TI) port is only available at the 34 Mbps speed. Customers must
     have compatible switching and transport capabilities as defined in Bellcore Technical Reference TR-
     TSV-001060. The Company's Special Access High Capacity Services, SONET Services or an
     EISCC, which must be purchased separately from the Company's Schedule Cal.P.U.C. No. 175-T,
     or another compatible non-Company facility are used to connect the customer premises to the
     SMDS TI port. No SMDS optional features are available with SMDS TI.

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS)

3.4 RATES AND CHARGES

The rates and charges following apply to SMDS in those LATAs where technical capability is available.

These rates and charges are for access into the Company's SMDS network. One SMDS charge applies for each facility that terminates into the SMDS network. These rates and charges are in addition to those for a dedicated DS0 circuit and/or a dedicated DS1/DS3 circuit offered in Schedule CAL.P.U.C. No. G8.2

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS) (Cont'd)
3.4 RATES AND CHARGES (Cont'd)

	Monthly Rate	Nonrecurring Charge 1st	Add'l.	USOC

A. SMDS LINESIDE INTERFACE

   - Per Port

   Peak Sustainable Throughout Speed

	Monthly Rate	1st	Add'l.	USOC
DS0				
- 56/64 Kbps	$ 105.00	$ 414.00	$ 414.00	CPT56
DS1				
- 1.17 Mbps	660.00	414.00	414.00	CPT15
DS3				
- 4 Mbps	1210.00	1650.00	1650.00	CPTO4
- 10 Mbps	1430.00	1650.00	1650.00	CPT1O
- 16 Mbps	1650.00	1650.00	1650.00	CPT16
- 25 Mbps	1870.00	1650.00	1650.00	CPT25
- 34 Mbps	1980.00	1650.00	1650.00	CPT34

1. Optional Features and
   Functions

	Monthly Rate	1st	Add'l.	USOC
a. Group Addressing[1]				
- per group	10.00	27.50	27.50	GRADD
b. Customer Network Information	15.00	55.00	55.00	TRDTL

/1/: May be required with some applications and/or protocols.

3. SWITCHED MULT-MEGABIT DATA SERVICE (SMDS) (Cont'd)
3.4 RATES AND CHARGES (Cont'd)

	Monthly Rate	Nonrecurring Charge		USOC
		1st	Add'l.	
A. SMDS LINESIDE INTERFACE (Cont'd)				

2. Changes
    - per service
      order
	N/A	$ 33.00	$ 33.00	SCH

B. SMDS TRUNKSIDE INTERFACE				
DS3 - 34 Mbps	$1980.00	1650.00	1650.00	SMDTC

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS)

4.1 GENERAL DESCRIPTION

   A. BASIC SERVICE DESCRIPTION

      ATM Cell Relay Service is a fast packet service offering networking capabilities using an industry-recognized technology - Asynchronous Transfer Mode (ATM). With this high speed, connection-orientated transport service the Company transmits information in fixed-size segments or cells (1 cell = 53 bytes) over various bandwidth capacities. A variable bandwidth capacity, defined as an Information Access Rate (IAR), is offered in a lineside or a trunkside connection. The lineside connection is the User to Network Interface (UNI) for end user customers and carriers. The trunkside connection is the Broadband ISDN-Inter Carrier Interface (B-ICI) for interexchange carriers and competitive access providers. The IAR, either UNI or BICI, must be interconnected to the customer's premises with a Company-provided facility from Schedule Cal.P.U.C. G8, Access Services, or a compatible non-Company facility.

      For the UNI the IAR is rated in 64 Kbps or 1Mbps increments: 64 Kbps increments for DS1 facilities and 1 Mbps increments for DS3 and OC3c facilities. For the B-ICI the IAR is rated at either 40 Mbps or 148 Mbps for DS3 and OC3 facilities respectively.

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)

4.1 GENERAL DESCRIPTION (Cont'd)

   A. BASIC SERVICE DESCRIPTION (Cont'd)

   Logical Connections, carrying voice, video or data traffic, are the essential, information-carrying
   elements of ATM Cell Relay Service. Logical Connections provide for sequence preserving, transfer
   of customer information. The connections are not hardwired end-to-end circuits but software-defined
   logical paths or permanent virtual circuits. These Logical Connections are either two way, point to
   point, or one way, multicast (a.k.a. multipoint). Logical Connections are rated for constant bit rate
   (voice and video transmissions) and variable bit rate (data transmissions) plus a maximum burst size
   that limits the number of cells being carried.

   Minimal service for UNI or B-ICI consists of an increment of Information Access Rate and one Logical
   Connection, either point to point or multipoint, rated for constant and variable bit rate.

   The customer may provide its own terminating equipment, but it must be compatible with the facilities
   of the Company.

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.1 GENERAL DESCRIPTION (Cont'd)
  A. BASIC SERVICE DESCRIPTION (Cont'd)

The Company's ATM Cell Relay Service conforms to the standards approved by the American National Standards Institute (ANSI) and International Telecommunications Union (ITU), formerly CCITT (Consultative Committee International Telephone and Telegraph). The basis of the ITU standards is the Broadband ISDN Reference Model which specifies Asynchronous Transfer Mode as developed by the ATM Forum as its base switching technology.

The customer must provide to the Company a current local contact and telephone contact number that is readily accessible 24 hours a day, 7 days a week. The customer's local contact will act as the point contact for inquiries, trouble reports, and security management involving the service configuration.

7.4.2 TECHNICAL SPECIFICATIONS

PUBL. 780028-PB
Issue 2, May 1996, available May 1996

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)

4.3 RATE ELEMENT DESCRIPTION

  A. INFORMATION ACCESS RATE

    1. User to Network Interface (UNI)

      The UNI Information Access Rate (IAR) is a stand-alone, port interface offering the end-user customer access to the ATM Cell Relay Service over three variable bandwidth ranges: (a) 128Kbps-1.5Mbps, (b) 4-40Mbps and (c) 51-148Mbps. This information Access Rate in combination with a Company facility or compatible non-Company facility furnishes access to ATM Cell Relay Service. For the 1.5Mbps IAR bandwidth increments are 64kbps; for the 4-40 and 51-148Mbps IAR bandwidth increments are 1Mbps. The customer must purchase the IAR range desired plus a minimum of one Logical Connection. Company facilities for DS1, DS3 and OC3s are from Schedule Cal.P.U.C. No. G8, Access Services, or provided by the customer. The amount of IAR may be changed by the customer by applications of the Network Change Charge, see section 4.3.

    2. Broadband ISDN Inter Carrier Interface (B-ICI)

      The B-ICI Information Access Rate is a stand-alone, port interface at 40 or 148Mbps allowing interexchange carriers and competitive access providers interconnection. The BICI provides ATM bearer services in accordance with Pacific Bell's technical standards that have been adopted from the ATM Forum B-ICI specifications. The B-ICI must be interconnected to a compatible Company facility from Schedule Cal.P.U.C. No. G8, Access Services, or compatible non-Company facility to furnish access to FasTrak ATM Cell Relay Service.

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.3 RATE ELEMENT DESCRIPTION(Cont'd)

   B. LOGICAL CONNECTIONS

   1. Virtual Channel Connections & Virtual Path Connections

      Within the Information Access Rate Logical Connections (a.k.a. permanent virtual
      connections) are the software-defined transmission paths between designated customer
      locations. A Logical Connection establishes the entry and exit points of the information
      being transmitted on the IAR. There are two types of Logical Connections: (1) the Virtual
      Channel Connection (VCC) which is the primary connection and (2) the Virtual Path
      Connection (VPCs) which is a grouping of VCCs that is routed to the same end point.
      Logical Connections are static and established upon ordering the service; they may be
      augmented when the customer desires. The customer has unlimited usage of the Logical
      Connections.

4. **ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)**

4.3 RATE ELEMENT DESCRIPTION (Cont'd)

    B. LOGICAL CONNECTIONS (Cont'd)

        2. Multicast or Point to Point

        When establishing service the customer must choose a Multicast (a.k.a. multipoint) or Point to Point configuration for each Logical Connection.

           a. <u>Multicast:</u> This Logical Connection provides a one-way transmission function between the originating point and the multipoints (a.k.a. leafs). A data stream originated by the sending customer is copied by the ATM Cell Relay Service network and sent to each of the multipoints. In multicast situations, separate point to point Logical Connections (VCC and/or VPC) can be established back to the communications origination point.

           b. <u>Point to Point:</u> This Logical Connection is a two-way transmission function and connects only two end points. This Logical Connection will be provided when Multicast is not requested.

    C. ATM CELL RELAY SERVICE FEATURES AND OPTIONS

        1. Logical Connections

        Logical Connections can transmit information at constant bit rates or variable bit rates. Upon establishing service the customer must select for each Logical Connection a Constant Bit Rate (CBR), Variable Bit Rate (VBR), or a mix of these features for the Information Access Rate. The customer also has the option of selecting Customer Network Information or Network Reconfiguration Service[1] or both.   (C)

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[1] Effective October 30, 2018, Network Reconfiguration Service (NRS) will no longer be available for   (N)
    purchase by new or existing customers. See Part 20, Section 15.   (N)

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.3 RATE ELEMENT DESCRIPTION (Cont'd)
 C. ATM CELL RELAY SERVICE FEATURES AND OPTIONS (Cont'd)

   2. Frame Relay/ATM Service Interworking (FR/ATM SI)

       FR/ATM SI allows customers to create permanent virtual circuits (PVCs) that span a ATM
       User-to Network Interface (UNI) and terminate on an asynchronous transfer mode (ATM). A
       customer with ATM Cell Relay Service will be able to establish PVCs to a customer of Frame
       Relay Service, with both technology platforms.

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.3 RATE ELEMENT DESCRIPTION (Cont'd)
 C. ATM CELL RELAY SERVICE FEATURES AND OPTIONS (Cont'd)

> 3. <u>Constant Bit Rate (CBR) - voice and video</u> CBR provides a quality of service that is non
> bursty with a low tolerance to time delays. The transmission of information, usually voice
> and video, is at a fixed bit rate over a Logical Connection.

> 4. <u>Variable Bit Rate (VBR) - data</u> VBR provides a quality of service that accommodates traffic
> with a higher tolerance to time delays. The transmission of information, usually data, is at
> varying bit rates over Logical Connections. The customer is not charged for the choice of
> the Variable Bit Rate option but for the bit rates limited as described in Maximum Burst Size:

>> <u>Maximum Burst Size (MBS)</u> The number of cells that
>> can consecutively pass through a VBR Logical Connection
>> without intervening blank cells. The maximum burst
>> size levels available are: 32 cells (ethernet applications), 100 cells (Fiber
>> Distributed Data Interface (FDDI) applications) and 200 cells (file transfer
>> applications). The 32 cell burst level will be assigned unless the customer
>> requests a higher level.

> 5. <u>Customer Network Information</u> This option permits users to obtain information on FasTrak ATM
> Cell Relay Service traffic, including counts of data packets sent and received on each of the
> logical connections on a per customer basis.

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)

4.4 RATES AND CHARGES

 A. UNI INFORMATION ACCESS RATE (IAR) RANGES

	Nonrecurring Charge
1. 128Kbps - 1.5Mbps IAR (DS1)	
a. Establish new Information Access Rate - per IAR	$400.00

      plus

   b. Monthly IAR, where

      N = Number of IAR increments at 64Kbps
      IAR = N x 64Kbps
      Monthly Charge = Monthly Rate x

      IAR Increment and Monthly Rate

N=2-4	5-8	9-12	13-16	17-20	21-24
$165.00	$86.00	$58.00	$44.00	$36.00	$31.00

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.4 RATES AND CHARGES (Cont'd)
 A. UNI INFORMATION ACCESS RATE (IAR) RANGES (Cont'd)

	Nonrecurring Charge

2. 4 Mbps - 40 Mbps IAR (DS3)

a. Establish new Information Access Rate

  - per IAR $1500.00

b. Monthly IAR, where
    N = Number of IAR increments at 64 Kbps
    IAR = N x 64 Kbps
    Monthly Charge = Monthly Rate x

       IAR Increment and Monthly Rate

N=4-5	6-9	10-15	16-24	25-34	35-40
$812.00	$475.00	$290.00	$186.00	$150.00	$137.50

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.4 RATES AND CHARGES (Cont'd)
  A. UNI INFORMATION ACCESS RATE (IAR) RANGES (Cont'd)

                                                                    Nonrecurring
                                                                      Charge

   3. 51 Mbps - 148 Mbps IAR (OC3)

    a. Establish new Information Access Rate

       - per IAR $3000.00

         plus

    b. Monthly IAR where
         N = Number of IAR increments at 1 Mbps
         IAR = N x 1 Mbps
         Monthly Charge = Monthly Rate x

              IAR Increment and Monthly Rate

              N=51-80   81-100   101-148

              $74.50 $ 50.00 $ 47.00

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.4 RATES AND CHARGES (Cont'd)

   B. B-ICI INFORMATION ACCESS RATE (IAR) RANGES

	Monthly Rate	Nonrecurring Charge
1. 40Mbps IAR (DS3)		
a. Establish new B-ICI (DS3)	$5500.00	$1500.00
2. 148Mbps IAR(OC3)		
a. Establish new B-ICI (OC3)	6956.00	3000.00

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.4 RATES AND CHARGES (Cont'd)

  C. LOGICAL CONNECTIONS:

	Monthly Rate
1. Virtual Channel Connections (VCC) - per VCC per IAR	
first	No charge
next 2-6	$ 15.00
next 7-11	10.00
12 and additional	5.00

    and/or

	Monthly Rate
2. Virtual Path Connections (VPC) - per VPC per IAR	
first	No Charge
next 2-6	50.00
next 7-11	30.00
12 and additional	20.00
3. Multicast	
-per originating Logical Connection (each)	120.00

  D. OPTIONAL FEATURES AND FUNCTIONS

1. Constant Bit Rate (CBR)	
-each 1 Mbps IAR increment	30.00
-each 64 Kbps IAR increment	10.00
2. Variable Bit Rate	
-each 1 Mbps IAR increment	No Charge
-each 64 Kbps IAR increment	No Charge

4. ASYNCHRONOUS TRANSFER MODE/CELL RELAY SERVICE (ATM/CRS) (Cont'd)
4.3 RATES AND CHARGES(Cont'd)
   D. OPTIONAL FEATURES AND FUNCTIONS (Cont'd)

	Monthly Rates	Nonrecurring Charge
3. Maximum Burst Size, per IAR		
- 32 cells	No Charge	NO
- 100 cells	$ 100.00	NO
- 200 cells	200.00	NO
4. Customer Network Information per IAR	100.00	$100.00
5. Network Changes for Existing Service, per circuit		
- change not affecting the IAR/physical interface		50.00
6. FR/ATM SI		
- DS1		
1-10 PVCs	35.00	50.00[1]
11-20 PVCs	20.00	50.00[1]
21+ PVCs	10.00	50.00[1]
- DS3		
1-100 PVCs	10.00	50.00[1]
101+ PVCs	5.00	50.00[1]

/1/: Nonrecurring charge is only applicable when a customer currently has FRS or ATM/Cell Relay
     Services. It will not be charged when ordered on new installations of FRS or ATM.