ADVANCED DATA SERVICES

Title Sheet

ADVANCED DATA SERVICES

WHOLESALE & RETAIL - SERVICE CATALOG

OF

ZIPLY FIBER NORTHWEST, LLC
D/B/A ZIPLY FIBER

135 Lake Street South
Kirkland, Washington 98033

SERVICES PROVIDED IN THIS SERVICE CATALOG
are available to all Wholesale and Retail customers.

This Schedule of Rates, Rules, and Regulations is
Applicable to Advanced Data Services Provided
in the Territory Served by the Company
Within the State of Washington.

SECTION INDEX

SECTION INDEX (Continued)

SECTION INDEX (Continued)

SECTION INDEX (Continued)

IX. SERVICES LIMITED TO EXISTING CUSTOMERS

EXPLANATION OF SYMBOLS

Whenever tariff sheets are filed, changes will be identified by the following symbols:

(C)	To signify changed listing, condition, rule or regulation
(D)	To signify discontinued material
(I)	To signify increase
(K)	To signify that material has been transferred to another sheet or place in the Service Catalog
(M)	To signify material transferred from one sheet to another sheet of the same or a different schedule with no change in text, rate, condition, rule or regulation
(N)	To signify new material
(O)	To signify no change
(R)	To signify reduction
(T)	To signify change in text but no change in rate, condition, rule or regulation

EXPLANATION OF ABBREVIATIONS

ATM	-	Asynchronous Transfer Mode
ATM CRS	-	Asynchronous Transfer Mode Cell Relay Service
B(e)	-	Excess Burst Size
Bps	-	Bits per Second
CBR	-	Constant Bit Rate
CCITT	-	Consultative Committee for International Telegraph and Telephone
CDL	-	Customer Designated Location
CDVT	-	Cell Delay Variation Tolerance
CIR	-	Committed Information Rates
CPE	-	Customer Provided Equipment
CUG	-	Closed User Group
dB	-	Decibel
DLCI	-	Data Link Connection Identifier
FRS	-	Frame Relay Service
IC	-	Interexchange Carrier
ICB	-	Individual Contract Basis
ICD	-	International Code Designator
LAN	-	Local Area Network
Mbps	-	Megabit Per Second
MBR	-	Maximum Burst Rate
MRC	-	Monthly Recurring Charge
NI	-	Network Interface
NID	-	Network Interface Device
nm	-	Nanometer
NNI	-	Network-to-Network Interface
NRC	-	Nonrecurring Charge
OPP	-	Optional Payment Plan
PCR	-	Peak Call Rate
PVCs	-	Permanent Virtual Circuits
PVP	-	Permanent Virtual Path
SCR	-	Sustained Cell Rate
SVC	-	Switched Virtual Circuit
TLS	-	Transparent LAN Service
UBR	-	Unspecified Bit Rate
UNI	-	User to Network Interface
VBR-nrt	-	Variable Bit Rate - Non Real Time
VBR-rt	-	Variable Bit Rate - Real Time
VCC	-	Virtual Channel Connection
VPC	-	Virtual Path Connection
VLAN	-	Virtual Local Area Network
WUTC	-	Washington Utilities and Transportation Commission

II. APPLICATION OF SERVICE CATALOG

This Service Catalog sets forth the service offerings, rates, terms and conditions applicable to the provision of advanced data services furnished by Ziply Fiber Northwest, LLC d/b/a Ziply Fiber within the State of Washington, hereinafter referred to as the Company, and subject to the jurisdiction of the Washington Utilities and Transportation Commission (WUTC), hereinafter referred to as the Commission. Services set forth herein are offered for intraexchange, intrastate, and interexchange application.	
General regulations, terms, conditions and charges as specified in other Service Catalogs of the Company apply, where appropriate, unless otherwise specified in this Service Catalog.	
When services and facilities are provided in part by the Company and in part by other companies, the regulations of the Company apply to that portion of the service or facilities furnished by it.	

III. GENERAL REGULATIONS

A. Undertaking of the Company Service is furnished for intrastate communications services originating or terminating at specified points within the State of Washington.	
The Company shall install, operate and maintain service provided hereunder in accordance with the terms and conditions set forth in this Service Catalog.	
The Company may, when authorized by the customer, act as the customer's agent for ordering dedicated access lines or facilities provided by other companies to allow connection of the customer's locations to the company's network or to the network of an underlying carrier or service.	
The Company will pass on and bill to the customer any charges it incurs (including applicable recurring and nonrecurring charges and any time and material charges) from other service providers, such as ILECs and CLECs, necessary to complete provision of a service offered in this Service Catalog to the customer's designated premises.	
Service is provided on a monthly basis unless ordered on a longer-term basis, and is available twenty-four (24) hours per day, seven (7) days per week.	
B. Limitations on Service Service is offered subject to the availability of the necessary facilities and equipment and subject to the provisions of this Service Catalog.	
The Company reserves the right to discontinue furnishing service, or to limit the use of service, when necessitated by conditions beyond its control, when the customer is using service in violation of the law or in violation of the provisions of this Service Catalog, or for non-payment by the customer.	
The customer may not transfer or assign the use of service, except with the prior written consent of the Company. All regulations and conditions contained in this Service Catalog, as well as all conditions for service, shall apply to all such permitted assignees or transferees. Except and to the extent that applicable laws or regulation require such notice, the Company may assign its rights and obligations hereunder in whole or in part without notice to the customer.	
Service may not be used for any unlawful purpose.	
The Company may require the customer to sign an application form furnished by the Company and to establish credit as provided in this Service Catalog, as a condition precedent to the initial establishment of service. The Company's acceptance of an order for service to be provided to an applicant whose credit has not been duly established may be subject to the deposit provisions described in the Deposits and Advance Payments elsewhere in this Section. The Company may also require a signed authorization from the customer for additions to or changes in existing service for such the customer.	

III. GENERAL REGULATIONS (Continued)

C. Limitations on Liabilities

The liability of the Company for damages is limited to liability arising solely and directly from mistakes, omissions, interruptions, delays, errors, or defects in transmission occurring in the course of furnishing service that are not caused in whole or in part by acts or omissions of any other person and shall in no event exceed an amount equivalent to the charges the Company would make to the customer for the period of service during which such mistakes, omissions, interruptions, delays, errors, or defects in transmission occur.

The Company shall not be liable for unlawful use, or use by any unauthorized person, of its service, or for any claim arising out of a breach in the privacy or security of communications transmitted by the Company.

The Company shall not be liable for any failure of performance due to causes beyond its reasonable control, including but not limited to acts of God, fires, meteorological phenomena, floods, or other catastrophes, national emergencies, insurrections, riots or wars, strikes, lockouts, work stoppages or other labor difficulties, and any law, order, regulation, or other action of any governing authority or agency thereof. With respect to the services, the Company hereby expressly disclaims all warranties, expressed or implied, not stated in this Service Catalog, and in particular disclaims all warranties of merchantability and fitness for a particular purpose.

The Company shall not be liable for any act or omission of other carriers whose facilities may be utilized in establishing connections to points not reached by the Company's facilities. The customer shall indemnify and save harmless the Company from any third party claims asserting such liability.

The Company is not liable for any damages the customer may incur as a result of the unauthorized use of the services provided under this Service Catalog. The customer is responsible for controlling access to, and the use of, the services provided by the Company.

D. Discontinuance or Interruption of Service by the Customer

Without incurring any liability, the Company may under the following conditions cancel service prior to commencement. The Company may also discontinue service that is being furnished. Discontinuance or interruption of service shall be in accordance with WAC 480-120-171, 480-120-172, 480-120-173 and 480-120-174.

For noncompliance with or violation of any applicable municipal, state, or Federal law, ordinance or regulation or noncompliance with or violation of any Commission regulation, provided that lesser notice may be required by order of such regulatory authorities.

For the customer's refusal to provide reasonable access to the Company or its agents for the purpose of inspection and maintenance of equipment owned by the Company.

For noncompliance with any of the provisions of this Service Catalog governing service.

For nonpayment of any sum due the Company, which is not in dispute, for more than thirty (30) days after delivery of an invoice to the custody of the U.S. Mail or other standard delivery service.

III. GENERAL REGULATIONS (Continued)

Without notice, in the event of the customer's use of equipment in such a manner as to adversely affect the Company's equipment or service to others.

Without notice, in the event of unauthorized or fraudulent use of service. Whenever service is discontinued for unauthorized use of service, the Company may, before restoring service, require the customer to make, at its own expense, all changes in facilities or equipment necessary to eliminate unauthorized use and to pay to the Company an amount reasonably estimated by the Company as the loss in revenues to the Company resulting from such unauthorized use plus claims lodged against the Company by third parties.

Without notice, by reason of any order or decision of a court or other government authority having jurisdiction that prohibits the Company from furnishing service to the customer.

E. Cancellation or Termination of Service by the Customer

The customer may cancel service by giving notice to the Company up to the day service is scheduled to commence.

If the customer orders service that requires special construction or facilities for the customer's use, and then cancels its order before service begins, a charge shall be made to the customer for the non-recoverable portions of the expenditures or liabilities incurred on behalf of the customer by the Company.

The Company shall have up to thirty (30) days to complete a disconnect. The customer shall be responsible for all charges for thirty (30) days, or until the disconnect is effective, whichever is sooner. This thirty (30) day period shall begin on the day of receipt of notice from the customer.

F. Contracts or Agreements

The Company will offer Contract Service Arrangements to meet the diverse communications needs of the Company's customers. All terms and conditions as specified in this Service Catalog will apply unless otherwise specified in the contract between the Company and the customer.

G. Restoration of Service

The use and restoration of service shall in all cases be in accordance with the priority system specified in 47 CFR § 64.401 of the Federal Communications Commission.

H. Deposits and Advance Payments

Each applicant for service may be required to establish credit. Any applicant whose credit has not been duly established may be required to make a deposit at the time of application to be held as a guarantee of payment of charges. In addition, an existing customer may be required to make a deposit or increase a deposit currently held. The customer’s deposit shall be in accordance with WAC 480-120-122, 480-120-123, 480-120-124 and 480-120-128.

III. GENERAL REGULATIONS (Continued)

A deposit shall not exceed the estimated charges for two months service, plus installation, and shall be returned: a.) when an application for service has been canceled prior to the establishment of service; or b.) at the end of twelve (12) consecutive months of a satisfactory credit history; or c.) upon discontinuation of service. The Company may first apply the deposit against any outstanding balances due. If a credit balance exists after such application, the Company shall refund the balance to the customer.

The fact that a security deposit has been made in no way relieves the customer from the prompt payment of bills upon presentation.

The Company reserves the right to require an advance payment from the customer instead of, or in addition to, a security deposit. The advance payment shall be in an amount equal to, or less than, estimated installation charges plus two months' estimated billing.

I. Terminal Equipment

Service may be used with or terminated in the customer-provided terminal equipment. Such terminal equipment shall be furnished by and maintained at the expense of the customer, except as otherwise provided. The customer is also responsible for all costs it incurs in the use of service, including but not limited to equipment, wiring, electrical power, and personnel. When such terminal equipment is used, it shall in all respects comply with the generally accepted minimum protective standards of the telecommunications industry as endorsed by the Federal Communications Commission.

J. Payment and Billing

Service is provided and billed on a monthly basis unless otherwise stated in the service description in this Service Catalog. Bills are due and payable upon receipt. A late fee of one and a half percent (1.5%) per month (or the maximum amount allowed by law, whichever is lower) may apply to any unpaid and past due balance, which is not in dispute. The late fee begins to accrue no sooner than the 25th day after the billing date. In the event that the Company incurs fees or expenses, including collecting, or attempting to collect, any charges owed to the Company, the Company may charge the customer, and the customer will pay, all such fees and expenses reasonably incurred. Collection fees on overdue charges apply in addition to all applicable late payment charges and shall begin to accrue when the Account is assigned to an outside collection agency.

The customer is responsible for payment of all charges which are not in dispute for service furnished to or used by the customer, or the customer's agents, servants, employees or customers. The customer is also responsible for payment of charges for all other third persons' use of service to which the customer subscribes. All charges due from the customer are payable to the Company or to the Company's authorized billing agent in immediately available U.S. dollars. Any objections to billed charges must be reported to the Company or its billing agent. Adjustments to the customer's bill shall be made to the extent that circumstances exist, which reasonably indicate that such changes are appropriate. If notice from the customer of a dispute as to charges is not reported to authorized billing agent or received in writing by the Company within two (2) years after the date the charges are incurred, the billing will be considered correct.

The security of the customer's authorization or access codes is the responsibility of the customer. The customer shall be responsible for payments of all charges applicable to the service, including in cases where the service was accessed in a manner not authorized by the customer.

III. GENERAL REGULATIONS (Continued)

The Company shall assess a charge of twenty dollars ($20.00) whenever a check or draft presented for payment of service is not accepted by the institution upon which it is written.

The Company reserves the right to examine the credit record or other available external sources of credit of an applicant or the customer. The customer whose service has been disconnected for nonpayment of bills shall be required to pay any unpaid balance due to the Company before service is restored, and a deposit may be required.

The Company shall make no refund of overpayment by the customer unless the claim for such overpayment, together with proper evidence, is submitted within two (2) years of the date of alleged overpayment. In calculating refunds, any applicable discounts shall be adjusted based upon the actual monthly usage after all credits and adjustments have been applied.

K. Taxes and Fees

Service may be subject to Federal, state and/or local taxes at the prevailing rates. Such taxes are listed as separate line items on the customer's invoice, are not included in the rates and charges listed herein, and shall be paid by the customer in addition to the rates and charges stated in this Service Catalog.

To the extent that a municipality, other political subdivision or agency of government, or the Commission imposes upon and collects from the Company a gross receipts tax, occupation tax, license tax, permit fee, franchise fee, or regulatory fee, such taxes and fees shall, insofar as practicable and allowed by law, be billed pro rata to the customers receiving service from the Company within the territorial limits of such municipality, other political subdivision or agency of government.

L. Interconnection

Service furnished by Company may be connected with the services or facilities of other carriers. The customer is responsible for all charges billed by other carriers in connection with the use of service. Any special equipment or facilities necessary to achieve compatibility between carriers are the sole responsibility of the customer.

M. Jurisdictional Determination

In those instances where the Company cannot determine the jurisdiction, the customer will be required to provide this information as described below.

1. If the customer’s estimate of the interstate traffic on the service involved constitutes ten percent (10%) or less of the total traffic on that service, the service will be ordered and provided in accordance with the applicable rules and regulations of this Service Catalog.

2. If the customer’s estimate of the interstate traffic on the service involved constitutes more than ten percent (10%) of the total traffic on that service, the service will be ordered and provided in accordance with the applicable rules and regulations of the interstate access Tariff, FCC No. 8.

III. GENERAL REGULATIONS (Continued)

N. Inspection, Testing and Adjustments

The Company may, upon reasonable notice, make such tests and inspections as may be necessary to determine whether Service Catalog requirements are being complied with in the installation, operation, and maintenance of the customer's or the Company's equipment. The Company may, without notice, interrupt service at any time, as necessary, because of a departure from any of these requirements and may continue such interruption until its requirements have been satisfied.

Upon reasonable notice, the facilities provided by the Company shall be made available to the Company by the customer for such tests and adjustments as may be necessary for their maintenance to a condition satisfactory to the Company.

The Company shall not be liable to the customer for any damages for service interruption pursuant to this Section.

O. Interruption of Service

It shall be the obligation of the customer to notify the Company of any interruption of service. Before giving such notice, the customer shall ascertain that the trouble is not being caused by any action or omission of the customer or is not in wiring or equipment connected to the terminal of the Company. The Company's liability for service interruption is limited according to the provisions outlined under General Regulations.

When service is interrupted for four (4) hours or more, the Company will, upon request by the customer, issue a credit computed as set forth below, provided such interruption is not determined by the Company to have been caused by the negligence or willful action of the customer, or any other person at the customer's terminal location, or by the failure of the customer's equipment or power supply.

Credit is computed by multiplying the monthly rate for service by the ratio that the number of hours in the period of interruption bears to seven hundred twenty (720) hours. For the purpose of this computation, each month shall be considered to have seven hundred twenty (720) hours. The credit shall be based upon the non-usage charges for the month during which the interruption occurred, excluding equipment and access line charges.

An interruption is measured from the time the Company detects trouble or the customer notifies the Company of the interruption by an expeditious means, until the trouble is cleared. Each interruption is considered separately for the purposes of establishing credit allowance. No credit shall be given for an interruption of service of less than four hours. The credit for a billing period shall not exceed the monthly rate.

P. Provision of Service

Services are provided only in those geographic areas where facilities exist, where the Company has in its discretion determined (subject to applicable law) to provide services, and where the Company is authorized to provide services. Provision of services offered under this Service Catalog are subject to availability.

III. GENERAL REGULATIONS (Continued)

Q. Special Construction

The regulations, rates and charges for special construction are set forth in contracts between the Company and the customer and apply in instances where substantial construction costs with no foreseeable reuse of facilities is forecast. The special construction rates and charges are in addition to the regulations, rates and charges specified in this Service Catalog.

R. Other Rules

The Company reserves the right to discontinue service, limit service, or to impose requirements on customers as required to meet changing regulations, rules or standards of the Commission.

S. Definitions

1. *Bit*

   The term "Bit" denotes a binary digit, the smallest unit of information in a binary system of notation.

2. *Bits per Second (Bps)*

   Number of bits transmitted in a one-second interval.

3. *Company*

   Ziply Fiber Northwest, LLC d/b/a Ziply Fiber.

4. *Channel*

   A path for communication between two or more telephones or Company offices, furnished in such a manner as the Company may elect, whether by wire, radio, or a combination thereof.

5. *Commission*

   The regulatory body of the State of Washington, namely the Washington Utilities and Transportation Commission.

6. *Customer*

   A person, firm, partnership, corporation, municipality, cooperative organization, governmental agency etc. receiving service from the Company.

III. GENERAL REGULATIONS (Continued)

7. *Customer Designated Location (CDL)* The term "Customer Designated Location" (CDL) denotes a location specified by the customer for the purpose of terminating FIA services. The Telephone Company must have access to the location to perform installation, testing, and maintenance functions. The customer may or may not have access to the location. CDLs include locations such as customer premises, end user premises, customer repeater stations, customer microwave towers, a Telephone Company's first point of switching, some other point where Telephone Company testing can occur, etc. A CDL may be designated by the customer for Switched Access, Special Access, or both in combination.	
8. *Customer Premise* Customer or user's premises, including a customer designated non-Company premises.	
9. *Customer Premises Equipment (CPE)* Devices or apparatus and/or their associated wiring provided by a customer.	
10. *Data* Information represented as characters in digital or analog form to which meaning can be assigned.	
11. *DS-0* Facilities that provide for the two-way transmission of isochronous bipolar serial data at a rate of 56/64 Kbps. The particular speed available is dependent on availability of facilities.	
12. *DS-1* Facilities that provide for the two-way transmission of isochronous bipolar serial data at a rate of 1.544 Mbps.	
13. *DS-3* Facilities that provide two-way transmission of isochronous bipolar serial data signals at 44.736 Mbps. The service can be provided with either an optical or electrical interface as specified by customer.	
14. *Facility (or Facilities)* Supplemental equipment, apparatus, wiring, poles, cables, and other materials and mechanisms necessary to, or furnished in connection with telephone service.	
15. *Hub* A Company designated serving wire center that is equipped to provide service.	

III. GENERAL REGULATIONS (Continued)

16. *Maximum Burst Size*

    Denotes the consecutive number of ATM cells that can enter the ATM Cell Relay Service network above the Sustained Cell Rate level and below the Peak Cell Rate level.

17. *Network interface (NI)*

    The point at which a customer's data transmission first enters the network supporting Frame Relay Service is the Network Interface (NI). It is the point of interconnection between the Company communications facilities and the customer terminal equipment.

18. *Permanent Virtual Circuit (PVC)*

    The term "Permanent Virtual Circuit" denotes a logical channel, defined in software, from one end user location to another. It allows a packet to be sent over a dedicated logical channel without call set up or clearing.

19. *Port*

    The physical entry points for Access Lines. Ports include the electronic equipment used in connecting these service elements to the FRS Network.

20. *Protocol*

    The term "Protocol" denotes a set of rules governing the format to be followed when transmitting information between communicating devices.

21. *Term Commitment*

    The length of time for which a customer agrees to pay for service, facilities or equipment. The payment period may be referred to as an Extended Service Plan (ESP), Optional Payment Plan (OPP), a Term Commitment Period (TCP) or Term Payment Plan (TPP).

22. *Service*

    Any or all service(s) provided by Company pursuant to this Service Catalog.

23. *Service Request*

    The term "Service Request" denotes a document (i.e., order) used by the Company to process a customer's request for services as offered throughout this Service Catalog.

24. *Virtual Circuit*

    A logical transmission channel established to a network address. The logical channel exists for a period of time until either end of the channel terminates the transmission.

III. GENERAL REGULATIONS (Continued)

T. Termination Liability

Termination Liability applies to Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) in Section *VII.*, Frame Relay Service found in Section *VIII.* and Transparent LAN Service (TLS)[1] found in Section *IX.*.

In the event the service is terminated by the Customer prior to completion of the current term commitment period, the customer shall be liable for an early termination charge, except as noted below. The amount of the early termination charge will be twenty-five percent (25%) of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:

25% X MRC X # of Lines/Channels/Paths X Remainder of Term = Termination Charge

Early termination charges will apply only to those rate elements under a term commitment period. If any rates for the service are increased during the term period, exclusive of any increase due to local, state or federal fees, taxes or surcharges, the customer may terminate the service without incurring an early termination charge.

- End of Term Options

  Prior to the end of the term commitment period, the customer may select one of the following options, to be effective at the end of the term:

  - Renew their term commitment,
  - Commit to a new term period,
  - Arrange for a change of service, or
  - Arrange for termination of the service.

In the event the customer does not select one of the above options, the customer will be converted to the shortest-term period available under Service Catalog (i.e., month-to-month, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the customer terminates the service within sixty (60) days of the conversion date.

Early termination charges will not be assessed under the following circumstances:

Customer moves existing service either to a new location within the same address and/or same building (inside move) or to a new location (outside move) and maintains that service for the remainder of the term;

Customer attempts to move the existing service to a new location within the Company's service area, but the service is unavailable;

[1] Offering is limited to existing customers at existing locations as of March 1, 2013.

III. GENERAL REGULATIONS (Continued)

Customer renegotiates a new term commitment plan for the same service before the current term commitment expires and the value of the new term commitment is equal to or greater than the remaining value of the current term commitment; or	
Customer changes to another service or upgrades service to a higher speed or capacity under a term commitment, provided the following conditions are met: The value of the new term commitment is equal to or greater than the remaining value of the current term commitment,	
The Company provides the new service via Service Catalog or on an individual case basis (ICB), and	
The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.	
The preceding termination liability rules and regulations affect only those services that reference this section for termination liability application. Termination liability as specified for other services shown elsewhere in this Service Catalog apply in lieu of the above.	

IV. APPLICATION OF RATES

A. Availability of Service

The Company's service is furnished to customers for data communications originating and terminating within the State of Washington under the terms and conditions of this Service Catalog. The Company's service is available twenty-four (24) hours per day, seven (7) days per week unless otherwise specified herein.

Any telecommunication services provided under this Service Catalog at retail to customers who are not telecommunications carriers are available at wholesale rates to telecommunications carriers pursuant to 47 U.S.C. §251(c)(4). See the Resale Local Exchange Services Service Catalog.

B. Mileage Measurement

The mileage to be used to determine the monthly rate for the channel mileage is calculated on the airline distance between the locations involved, i.e., the serving wire centers associated with two (2) customer-designated premises; a serving wire center associated with customer-designated premises and a Network Controller location or the Company Hub; a serving wire center associated with customer-designated premises and an expanded interconnection multiplexing location; an expanded interconnection multiplexing location and Company Hub where multiplexing functions are performed; or two (2) Company Hubs. The serving wire center associated with customer-designated premises is the serving wire center from which customer-designated premises would normally obtain a dial tone.

The mileage to be used to determine the monthly rate for the channel mileage is calculated on the airline distance between the locations involved, i.e., the serving wire centers associated with two (2) customer-designated premises, a serving wire center associated with customer-designated premises and a Network Controller location or Company Hub; a serving wire center associated with customer-designated premises and expanded interconnection multiplexing location and Company Hub where multiplexing functions are performed; or two (2) Company Hubs. The serving wire center associated with customer-designated premise is the serving wire center from which customer-designated premises would normally obtain dial tone.

When Hubs are involved, mileage is computed and rates applied separately for each section of the channel mileage, i.e., customer-designated premises serving wire center, expanded interconnection multiplexing node or virtual collocation arrangement. However, when any service is routed through a Hub for purposes other than the customer specified bridging, multiplexing, grooming, vertical service, rates will be applied only to the distance calculated between the serving wire centers associated with customer-designated premises.

Formula: $\frac{\sqrt{(V_1V_2)^2 + (H_1H_2)^2}}{10}$

C. Facilities Hubs

The customer has the option of ordering analog facilities or digital high capacity facilities (i.e., DS1, DS1C or DS3) to a facility Hub for channelizing to individual services requiring lower capacity facilities.

IV. APPLICATION OF RATES (Continued)

Different locations may be designated as Hubs for different facility capacities, e.g., multiplexing from digital to analog may occur at one location while multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. Locations (wire centers) that provide multiplexing of High Capacity Services have been designated as Intermediate Hubs, Super-Intermediate Hubs or Terminus hubs. When ordering, the customer will specify the desired multiplexing Hub(s) or grooming Hubs, as applicable.

D. Moves

A move normally involves an interruption of service for the period required to complete the move. No credit allowance will be granted for that period. The customer is responsible for any applicable Special Construction or non-standard charges at the different CDL.

The customer may request that service not be interrupted during a move. To comply with that request, it may be necessary to install a duplicate service, and subsequently discontinue the existing service. Charges, monthly and nonrecurring, will apply for the duplicate service. A new minimum period will be established for the duplicate portion of the service, depending on which end of service is moved. The customer will remain responsible for all minimum period charges associated with the corresponding portion of the disconnected service.

1. *Same CDL (Inside Move)*

When the move is to a new point within the same CDL (same address and/or same building), the charge for the move will be the Subsequent Ordering Charge plus an amount equal to one half the appropriate installation charge for the service termination affected. There will be no change in the minimum period requirements. For services subject to payment plan regulations, the customer will keep the same payment period in force.

2. *Different CDL (Outside Move)*

When the move is to a different CDL (different address and different building), except as specified below, it will be treated as a disconnect and an installation of service. The Initial Ordering Charge will apply plus the appropriate service installation charge for the service termination(s) affected. A new minimum period will be established for the installed service. The customer will remain responsible for all minimum period charges associated with the disconnected service.

When the move is to a different CDL but served by the same serving wire center, the following conditions apply:

- A change Service Request will be required.

- Subsequent Ordering Charge will apply plus the appropriate service installation charge for the service termination(s) affected.

V. CONNECTION CHARGES

A. Ordering Charges The applicable charges are found in the Facilities for Intrastate Access Service Catalog.	
B. Requests for Expedition The customer may request an expedited service date. The Company will provide an estimate of the charges to the customer. The customer must accept the price estimate prior to the Company performing the expedite. The actual charges billed to the customer will be no more than ten percent (10%) over the estimate.	

VI. PROMOTIONS

The Company may provide special promotional offerings to its customers. These offerings may be limited to certain dates, times and locations. All promotions are subject to availability of service at the requested location and are not valid with any other promotions, unless otherwise specified.	

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS)

A. Service Description

Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) is a telecommunications transport and switching service that provides for high-speed connectivity between Customer designated locations (CDLs), where conditions and facilities permit. ATM CRS consists of a User Network Interface (UNI) interface. This interface is available in various configurations including Port With Access Line Connection and Port Only Connection, with either incremental or full bandwidth.

The UNI Port With Access Line Connection is a dedicated digital line that provides a link from the CDL to one of the Company's ATM CRS hubs[2]. UNIs are also provisioned as a Port Only Connection as defined in Service Components, Port Only Connection following.

ATM CRS is a fast-packet, cell-based technology that can support user applications requiring high-bandwidth, high-performance transport and switching. This connectivity is provided via Permanent Virtual Circuits (PVCs) and/or Switched Virtual Circuits (SVCs) that are implemented over access facilities and switches that are dedicated to high-speed telecommunications services.

UNI Port with Access Line Connections, Port Only Connections, PVCs and SVCs are further described in Service Components following.

B. Service Components

The major components of ATM CRS are:

UNI Port With Access Line Connection
UNI Port Only Connection
Permanent Virtual Circuit (PVC)
Switched Virtual Circuit (SVC)
Effective Bandwidth

1. *UNI Port With Access Line Connection*

UNI Port With Access Line Connections are available at the DS1, DS3, OC3c, and OC12c levels and provide dedicated transport between the CDL and an ATM CRS hub. There are two (2) types of UNIs: Full and Incremental. The Full UNI includes all available bandwidth in one data rate, and the Incremental UNI is sold and provisioned with PVC and/or SVC bandwidth increments. The DS1 UNI is not offered in increments. UNI Port with Access Line Connections may be ordered under a One (1), Two (2), Three (3) or Five (5) year term commitment period.

[2] For definition, see Section *III.*, Definitions of this Service Catalog.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

	In order for Customer traffic to be carried on the network, each Incremental UNI requires at least one (1) 5 Mbps increment of either PVC or SVC bandwidth. The Customer may elect to subscribe to multiple PVCs. The SVC feature is established over the UNI via connection identifiers, which enables the Customer to have virtual connections to various locations.	
	UNIs are provided at nominal data rates of 1.544 Mbps (DS1), 45 Mbps (DS3), 155 Mbps (OC3c), or 622 Mbps (OC12c). OC3c and OC12c are provided as a concatenated signal in STS-3c and STS-12c (Synchronous Transport Signal) formats, respectively. The actual throughput into CRS is less than the line rate for the UNI provided.	
	The rates and charges for a UNI are differentiated by the capacity of the UNI, the location where the UNI originates (i.e., Customer designated location) and mileage ranges (expressed as tiers) associated with extending the UNI to the wire center designated by the Company as the ATM CRS hub.	
	The OC3c and OC12c UNI Port With Access Line Connections are provisioned on either Protected or Protected Diverse Synchronous Optical Network (SONET). SONET is a standards-based fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format. ATM OC3c and OC12c Protected SONET UNI Port With Access Line Connections are provisioned over SONET as a survivable service with a non-diverse alternate facility between the central office and the Customer premises. ATM OC3c and OC12c Protected Diverse SONET UNI Port With Access Line Connections are provisioned over SONET as a survivable service with an alternate and diverse path between the ATM CRS hub and the Customer premises.	
	UNI Port Only Connections can be established as a User to Network Interface (UNI) arrangement. The UNI and Port Only connection provides an ATM Cell Relay Network connection based on the port connection speeds of DS1, DS3, OC3c and OC12c. The ATM port speed will be consistent with the channel speed of the access channel. The actual throughput of Customer traffic cannot exceed the bandwidth of the access channel and port speed.	
	UNI Port Only Connections are available as either Incremental or Full. This refers to the bandwidth that is required to provision PVCs on the port. Incremental ports come with no bandwidth and bandwidth is purchased in increments based on Customer bandwidth requirements. Full ports come with all bandwidths included up to the maximum data rate of the port. Each port can accommodate multiple PVCs or SVCs depending on the bandwidth purchased. UNI Port Only Connection is available on a one (1), two (2), three (3) and five (5) year term commitment period.	
	Customers may access Port Only Connections via Company-provided digital access facilities or via facilities provided by another carrier. When access facilities are provided by the Company, the associated regulations, rates and charges from this Service Catalog shall apply in addition to the regulations, rates and charges associated with ATM CRS. Company-provided access facilities may also be provisioned on an Individual Case Basis (ICB) where access facilities are not generally available under the applicable Service Catalog. Charges to connect access line Services provided by the Company or another carrier may apply and will be billed separately. Any special construction or nonstandard charges assessed by the carrier supplying the access facilities will be the responsibility of the Customer.	

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

2. *Permanent Virtual Circuit (PVC)*

The PVC defines a virtual connection across a UNI between the Customer premises and the Company's ATM CRS hub. Each UNI requires at least one PVC in order for Customer traffic to traverse the network. Each ATM cell carries a unique tag which identifies that ATM CRS cell as belonging to a particular PVC. A PVC is a logical channel connecting two (2) or more CDLs with virtual connections through a Company provided ATM CRS switch(es). The PVCs may be provided on a point-to-point or point-to-multipoint basis. When a PVC is provided as a point-to-point virtual connection, transmission is bi-directional allowing for ATM CRS cells to be transmitted or received over the same PVC. For point-to-multipoint virtual connections, transmission is provided as transmit only. The virtual connection is set up by the Company, based on information contained on a Telecommunications Service Request (TSR) rather than by dial-up signaling.

PVCs consist of two (2) types: Virtual Channel Connections (VCCs) and Virtual Path Connections (VPCs). A VCC is a type of PVC with independent identity and defined service parameters that are provisioned via a TSR, and cannot be altered by the Customer without additional TSR activity. A VPC is a type of PVC with defined service parameters that is provisioned via a TSR. Customers may provision their own virtual channels within the VPC, provided that the sum of the service parameters of all of the virtual channels does not exceed the aggregate service parameters of the VPC.

If the information provided by the Customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction, subject to the rates, terms and conditions from the Company's FCC Tariff.

3. *Switched Virtual Circuit (SVC)*

SVCs are similar in structure to PVCs, but SVCs are provisioned on demand by Customer premises equipment that signals the ATM cell relay network to set up and tear down logical connections. The network will respond to these requests by provisioning a virtual connection across the network based on the class of service parameters requested, provided that sufficient network resources are available to establish the connection. Each UNI that is SVC signal enabled will be provided with a SVC International Code Designator (ICD) prefix that will uniquely identify the UNI. Customers must use this Company assigned prefix when requesting SVC virtual connections across the Company Cell Relay Network. Each Constant Bit Rate (CBR) and Variable Bit Rate (VBR) SVC will be limited to a maximum Peak Cell Rate of 20 Mbps and a maximum Sustained Cell Rate of 20 Mbps.

Closed User Group (CUG) capability is a feature associated with SVCs. A CUG provides the ability to contain SVC calls between certain UNIs. A CUG functionally groups UNIs into logical associations and allows calling privileges to be specified network wide. A CUG provides a network-wide mechanism for access control. CUGs provide a logical grouping of UNIs, creating a SVC community of interest.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

4. *Effective Bandwidth*

Effective bandwidth is the bandwidth reserved for each logical connection (PVC or SVC) that is set up across a UNI. It is based on the Peak Cell Rate (PCR), Sustained Cell Rate (SCR), Maximum Burst Size (MBS) and the class of service parameters selected, i.e., CBR (Constant Bit Rate), VBRrt (Variable Bit Rate real time), VBRnrt (Variable Bit Rate non-real time), or UBR (Unspecified Bit Rate). The total effective bandwidth of all the logical connections on a UNI cannot exceed the total bandwidth available on the UNI. Effective bandwidth prices do not vary by class of service level selected. However, effective bandwidth is consumed in varying degrees based on the class of service parameters selected. The higher the class of service, the more bandwidth will be reserved. A CBR PVC with the same PCR as a VBR PVC will reserve more effective bandwidth.

C. Technical Specifications

The technical specifications for ATM CRS are delineated in Technical References TR-NWT-001112, GR-1110-CORE, GR-1248-CORE, and SR-3330.

The technical specifications for DS1 and DS3 signals are delineated in TR-INS-000342.

The technical specifications for OC3c and OC12c signals are delineated in GR-253-CORE, Issue 2.

The technical specifications for UNIs are delineated in ATM Forum ATM User Network Interface Specifications V3.0, af-uni-0010.001, and V3.1, af-uni-0010.002. Interface specifications for Customer-provided ATM CRS compatible premises equipment or devices must also be in accordance with the specifications defined in these documents.

D. Provision of Service

- ATM CRS includes:

At least one (1) UNI Port With Access Line or Port Only Connection which has a maximum nominal capacity for either DS1 (1.544Mbps), DS3 (45 Mbps), OC3c (155 Mbps), or OC12c (622 Mbps). The OC3c and OC12c UNIs are provisioned over Protected or Protected Diverse SONET. The Protected and Protected Diverse SONET facilities provide a backup facility that automatically switches in the event of a failure on the primary facility.

Unlimited usage on purchased bandwidth.

Incremental UNIs must have at least one (1) increment of effective bandwidth (either PVC or SVC) in order for traffic to traverse the network. The DS1, DS3, OC3c, and OC12c Full UNIs are equipped with the full effective bandwidth.

Either one (1) or more PVCs. When PVC bandwidth is purchased, one (1) or more PVCs must be selected for Customer traffic to traverse the network.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

Two (2) types of PVCs, a.) Virtual Channel Connections (VCCs) and b.) Virtual Path Connections (VPCs), which support the following Classes of Service:

- Constant Bit Rate (CBR)
- Variable Bit Rate real time (VBRrt)
- Variable Bit Rate non-real time (VBRnrt)
- Unspecified Bit Rate (UBR)

E. Tier Structure for Local Serving Offices

Wire centers that provide ATM CRS have been designated by the Company as ATM hubs. Each local serving office has been placed in a Tier 1, 2 or 3, based on its location relative to the closest ATM hub.

F. Service Functionality

The ATM CRS functionality consists of transporting 53-byte cells of information from CDL to a Company ATM hub over a UNI. The traffic is routed in the switch to another UNI or other suitable network connection.

G. Class of Service Parameters

1. *Constant Bit Rate (CBR)*

   a. Peak/Sustained Cell Rate:

      Customer specified in increments of 64 Kbps up to the maximum speed of the UNI.

   b. Non-conforming cells:

      Discarded

   c. Cell Delay Variation Tolerance (CDVT):

      DS1 = 600 microseconds
      DS3 = 600 microseconds
      OC3c = 600 microseconds
      OC12c = 600 microseconds

2. *Variable Bit Rate (VBR) Real Time/Non-Real Time*

   a. Sustained Cell Rate (SCR):

      Customer specified in increments of 64 Kbps up to the maximum speed of the UNI.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

b. Peak Cell Rate (PCR):

Customer selectable in increments of 64 Kbps up to the line rate. Default is two hundred percent (200%) of SCR for PVCs. (The ratio of PCR to SCR will be signaled by CPE for SVCs. Therefore, there is no default value.)

c. Non-confirming cells:

Discarded

d. Cell Delay Variation Tolerance (CDVT):

DS1 = 600 microseconds
DS3 = 600 microseconds
OC3c = 600 microseconds
OC12c = 600 microseconds

H. Conditions

ATM CRS is available where facilities and conditions permit. For locations where the Customer requests ATM CRS, but digital, SONET are not available, special construction charges may apply. See Section *III.*, General Regulations for Special Construction terms and conditions.

1. *Maintenance Window*

To meet the Customers' requirements, occasional network upgrades must be performed. Network upgrades are needed to provide improved performance and new features. Generally these upgrades will be performed between the hours of 11:00 PM and 8:00 AM. Network upgrades are planned to provide Customers reasonable and timely notification in order to minimize any impact on the Customers' service.

2. *Obligations of the Customer*

The Customer must provide the necessary compatible premises equipment or ATM CRS device capable of interfacing with the Company's ATM CRS.

3. *Obligations of the Company*

The Company is responsible for service up to and including the network interface. The Company's responsibility is limited to the furnishing of communications facilities and switches suitable for ATM CRS.

ATM CRS is supported by the Company's Single Point of Contact (SPOC) center, which provides continuous support for ATM CRS twenty-four (24) hours per day, seven (7) days per week (24x7) with the ability to manage all of the Customer's ATM CRS as a single network. The SPOC performs maintenance, trouble resolution and network management functions on a 24x7 basis. Service order processing and network installation functions are performed only during normal business hours.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

I. Application of Rates and Charges

1. *Rate Elements*

The following rate elements are applicable to ATM CRS:

- UNI Port With Access Line Connection
- UNI Port Only Connection
- Permanent Virtual Circuit (PVC)
- Effective Bandwidth for Incremental UNIs
- Closed User Groups (CUG)
- Administrative Charge

a. UNI Port With Access Line Connection

A monthly rate applies on a per Port With Access Line Connection basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental or SONET, Protected or Protected Diverse) of the access connection. UNI Port and Access is offered as a one (1), two (2), three (3) or five (5) year term commitment period. Nonrecurring charges are not applicable.

b. User Network Interfaces (UNIs) Port Only Connection

A monthly rate applies on a per Port Only basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental) of the port only connection. UNI Port Only is offered as a one (1), two (2), three (3) or five (5) year term commitment period. Nonrecurring charges are not applicable.

c. Permanent Virtual Circuits (PVCs)

The Administrative Charge does not apply when PVCs are installed at the same time as the respective UNIs.

If the information provided by the Customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction, subject to the rates, terms and conditions from the Company's FCC Tariff.

d. Effective Bandwidth for Incremental UNIs

A monthly rate applies for incremental UNIs for CBR, VBR or UBR PVC and SVC bandwidth at 5 Mbps for DS3, or OC3c and at 15 Mbps for OC12c. Nonrecurring charges are not applicable.

The monthly rate for PVC and/or SVC UBR bandwidth will be waived when the combined VBR and CBR effective bandwidth purchased (either SVC or PVC or any combination) is equal to at least fifty percent (50%) of the effective bandwidth capacity of the UNI. When UBR bandwidth is made available, it is available for both PVCs and SVCs. Nonrecurring charges are not applicable.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

e. Closed User Groups (CUG)

A nonrecurring charge applies per order and per UNI for each CUG established and for each subsequent CUG member added to a CUG. The nonrecurring charge does not apply when a CUG is installed at the same time as the respective UNI.

2. *Administrative Charge*

A nonrecurring charge applies when the Customer Initiates a change to one or more of the following: UNI bandwidth, PVCs, class of service parameters, and/or other service parameters that do not require changes in physical facilities and that can be provisioned by the Company without the dispatch of a technician to the Customer location. For each TSR order issued, the charge will be one Administrative Charge regardless of the number of changes made. The Administrative Charge does not apply for those items ordered on the same TSR order with the installation of a UNI.

3. *Minimum Period*

The minimum billing period for ATM CRS is one (1) month.

a. Term Commitment Periods

The ATM CRS UNI Port with Access Line Connection and UNI Port Only Connection rate elements are available under a term commitment period.

Term commitments of one (1), two (2), three (3) and five (5) years are available to all Customers at the applicable rates set forth in Rates and Charges following. Rate elements must be ordered under the same term commitment period.

- Termination Liability

  In the event ATM CRS is terminated by the Customer prior to completion of the initial term commitment period, Termination Liability charges, as set forth in Section *III.*, General Regulations will apply.

b. Moves

When the Customer requests a move or relocation of the UNI, the move or relocation will be treated as a termination of the existing Service and the establishment of a new Service for which a new term commitment period will commence. See Section *III.*, General Regulations for any applicable Termination Liability charges.

c. Special Facilities Routing

The Customer may request that the facilities used to provide ATM CRS be specially routed. Additional charges will apply under an ICB contract arrangement. See Section *III.*, General Regulations, Special Construction for terms and conditions.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

d. Acceptance Testing

Upon the Customer's request, the Company will cooperatively test at the time of installation at no additional charge. Acceptance tests will include tests for the parameters applicable to the Service as specified in the order for Service.

J. Rates and Charges

1. *User Network Interface (UNI) Port With Access Line Connection*

	One-Year Rate	Two-year Rate	Three-Year Rate	Five-Year Rate
DS1, each				
Full				
Tier 1 (0 to 5 Miles)	$665.00	$632.00	$565.00	$532.00
Tier 2 (5 to 25 Miles)	665.00	632.00	565.00	532.00
Tier 2 (25 to 50 Miles)	665.00	632.00	565.00	532.00
DS3, each				
Full				
Tier 1 (0 to 5 Miles)	3,355.00	3,187.00	2,852.00	2,684.00
Tier 2 (5 to 25 Miles)	3,947.00	3,750.00	3,355.00	3,158.00
Tier 2 (25 to 50 Miles)	4,736.00	4,499.00	4,026.00	3,789.00
Incremental				
Tier 1 (0 to 5 Miles)	2,815.00	2,674.00	2,393.00	2,252.00
Tier 2 (5 to 25 Miles)	3,312.00	3,146.00	2,815.00	2,649.00
Tier 2 (25 to 50 Miles)	3,974.00	3,775.00	3,378.00	3,179.00
OC3c, each				
SONET				
Full, Protected				
Tier 1 (0 to 5 Miles)	6,330.00	6,014.00	5,381.00	5,064.00
Tier 2 (5 to 25 Miles)	7,447.00	7,075.00	6,330.00	5,958.00
Tier 2 (25 to 50 Miles)	8,936.00	8,489.00	7,596.00	7,149.00
Full, Protected Diverse				
Tier 1 (0 to 5 Miles)	7,730.00	7,344.00	6,571.00	6,184.00
Tier 2 (5 to 25 Miles)	9,094.00	8,639.00	7,730.00	7,275.00
Tier 2 (25 to 50 Miles)	10,913.00	10,367.00	9,276.00	8,730.00
Incremental, Protected				
Tier 1 (0 to 5 Miles)	4,410.00	4,190.00	3,749.00	3,528.00
Tier 2 (5 to 25 Miles)	5,188.00	4,929.00	4,410.00	4,151.00
Tier 2 (25 to 50 Miles)	6,226.00	5,915.00	5,292.00	4,981.00

Continued on next page…

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

Continued from previous page…

	One-Year Rate	Two-year Rate	Three-Year Rate	Five-Year Rate
Incremental, Protected Diverse				
Tier 1 (0 to 5 Miles)	5,810.00	5,520.00	4,939.00	4,648.00
Tier 2 (5 to 25 Miles)	6,835.00	6,493.00	5,810.00	5,468.00
Tier 2 (25 to 50 Miles)	8,202.00	7,792.00	6,972.00	6,562.00
OC12c, each				
SONET				
Full, Protected				
Tier 1 (0 to 5 Miles)	19,560.00	18,582.00	16,626.00	15,648.00
Tier 2 (5 to 25 Miles)	23,012.00	21,861.00	19,560.00	18,409.00
Tier 2 (25 to 50 Miles)	27,614.00	26,233.00	23,472.00	22,091.00
Full, Protected Diverse				
Tier 1 (0 to 5 Miles)	21,160.00	20,102.00	17,986.00	16,928.00
Tier 2 (5 to 25 Miles)	24,894.00	23,649.00	21,160.00	19,915.00
Tier 2 (25 to 50 Miles)	29,873.00	28,379.00	25,392.00	23,898.00
Incremental, Protected				
Tier 1 (0 to 5 Miles)	13,000.00	12,350.00	11,050.00	10,400.00
Tier 2 (5 to 25 Miles)	15,294.00	14,529.00	13,000.00	12,235.00
Tier 2 (25 to 50 Miles)	18,353.00	17,435.00	15,600.00	14,682.00
Incremental, Protected Diverse				
Tier 1 (0 to 5 Miles)	14,600.00	13,870.00	12,410.00	11,680.00
Tier 2 (5 to 25 Miles)	17,176.00	16,317.00	14,600.00	13,741.00
Tier 2 (25 to 50 Miles)	20,612.00	19,581.00	17,520.00	16,489.00

2. *User Network Interface (UNI) Port Only Connection*

DS1, each	One-Year Rate	Two-year Rate	Three-Year Rate	Five-Year Rate
Full	$347.00	$330.00	$295.00	$278.00
DS3, each				
Full	1,224.00	1,163.00	1,040.00	979.00
Incremental	588.00	559.00	500.00	471.00
OC3c, each				
Full	3,200.00	3,040.00	2,720.00	2,560.00
Incremental	941.00	894.00	800.00	753.00

Continued on next page…

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

Continued from previous page…

DS1, each	One-Year Rate	Two-year Rate	Three-Year Rate	Five-Year Rate
Full	$11,247.00	$10,685.00	$9,560.00	$8,998.00
Full	3,529.00	3,353.00	3,000.00	2,824.00

3. *Permanent Virtual Circuit (PVCs)*[3]*, per order*

Virtual Channel Connections (VCCs)	Nonrecurring Charge[4]
Constant Bit Rate (CBR)	$75.00
Variable Bit Rate real time (VBRrt)	75.00
Variable Bit Rate non-real time (VBRnrt)	75.00
Unspecified Bit Rate (UBR)	75.00
Virtual Path Connections (VPCs)	
Constant Bit Rate (CBR)	75.00
Variable Bit Rate real time (VBRrt)	75.00
Variable Bit Rate non-real time (VBRnrt)	75.00
Unspecified Bit Rate (UBR)	75.00

[3] If the information provided by the Customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction and will be rated from the Company's FCC Tariff.

[4] Applies per order and in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs. If multiple UNIs are involved, a nonrecurring charge will apply to each UNI or Port on which the virtual connections will reside. The nonrecurring charge does not apply when PVCs are installed at the same time as the respective UNIs.

VII. ASYNCHRONOUS TRANSFER MODE (ATM) CELL RELAY SERVICE (CRS) (Continued)

4. *Effective Bandwidth for Incremental UNIs*

	Month Rate	Nonrecurring Charge
CBR or VBR PVC Bandwidth		
DS3, OC3c – 5 Mbps	$80.00	N/A
OC12c – 15 Mbps	200.00	N/A
CBR or VBR SVC Bandwidth		
DS3, OC3c – 5 Mbps	80.00	N/A
OC12c – 15 Mbps	200.00	N/A
UBR PVC and SVC Bandwidth, Bandwidth up to the UNI Line rate		
DS3	400.00	N/A
OC3c	1,200.00	N/A
OC12c	4,000.00	N/A

5. *Closed User Groups (CUG)[5], per order, per UNI*

	Month Rate	Nonrecurring Charge
Each CUG	N/A	$75.00
Each subsequent CUG, member added to a CUG	N/A	75.00

6. *Administrative Charge*[6]

	Month Rate	Nonrecurring Charge
Per TSR order	N/A	$75.00

[5] The monthly rate for UBR PVC and/or SVC bandwidth will be waived when the combined VBR and CBR effective bandwidth purchased (either SVC or PVC or any combination) is equal to at least 50% of the effective bandwidth capacity of the UNI.

[6] See Application of Rates and Charges, Administrative Charge, of this section for exceptions.

VIII. FRAME RELAY SERVICE

A. General

Frame Relay Service (FRS) is a data communications service that provides for data connectivity between/among widely distributed locations. This connectivity is provided via Permanent Virtual Circuit (PVC) connections implemented over access facilities utilizing a switch dedicated to high-speed data services.

FRS is a transport service that facilitates the exchange of variable length information units (frames) between end user connections by way of PVCs. Each frame is passed to the Frame Relay network with an address that specifies the permanent virtual circuit.

Variable frame length capability is useful in communications between asynchronous Local Area Networks (LAN) and for transport of synchronous data traffic. FRS is capable of handling the requirements of bursty data sources because of the ability of the service to allocate additional bandwidth when not in use by other sources.

In operation of FRS, Customer Premises Equipment (CPE), such as routers, encapsulate arriving data into variable length frames. These frames contain information identifying which PVC in the network should be used to forward the frame to the proper destination. The CPE then sends the frame into the Frame Relay network. The Frame Relay switch reads identifying information and routes the frame to the proper destination based on a pre-established PVC path.

The statistical multiplexing Frame Relay switches are able to provide shared network resources to end users of this service.

The Committed Information Rate (CIR) and Excess Burst Size B(e) are traffic management parameters that allow the customer to fine tune implementation of FRS.

FRS, as provided for in this Service Catalog, is offered for intrastate use only.

B. Definitions

In addition to the definitions in Section *III.* of this Service Catalog, the following definitions apply:

1. *Committed Information Rate (CIR)*

   The maximum information rate at which customer traffic will be admitted to the network without being designated eligible for discard.

2. *Customer Designated Location (CDL)*

   The geographic location designated by the customer at which an access component of the customer's service is first considered to enter the Company's network.

3. *Data Link Connection Identifier (DLCI)*

   The Frame Relay virtual circuit number corresponding to a particular destination which is part of the frame relay header and is usually ten bits long.

VIII. FRAME RELAY SERVICE (Continued)

4. *Excess Burst Size B(e)*

   The data rate above the Committed Information Rate (CIR), but less than the port size, at which customer data will be admitted to the Frame Relay network. All Excess Burst data B(e) admitted to the network will be designated as eligible for discard.

5. *Frame Relay Service (FRS)*

   A connection oriented fast packet network service that permits the transmission of data at speeds of 56 Kbps to 44.736 Mbps using Permanent Virtual Circuits (PVCs).

6. *Maximum Burst Rate (MBR)*

   The maximum information rate at which customer traffic will be admitted to the network. Traffic rates in excess of MBR will automatically be discarded on ingress to the network. The Maximum Burst Rate is equal to the sum of the Committed Information Rate (CIR) and Excess Burst Size B(e).

7. *Network-to-Network Interface (NNI)*

   A standard interface used to connect two frame relay services, and includes elements such as bi-directional polling to assist the network services providers in gaining information on the status of the networks being connected.

8. *User-to-Network Interface (UNI)*

   A standard interface used to connect the end user to the Frame Relay Service network. It receives the data frame from the customer's Local Area Network (LAN) or other customer-provided equipment (CPE) devices and verifies that the Data Link Connection Identifier (DLCI) is valid before relaying the frame to the destination end point. The DLCI is a Frame Relay term defining a 10-bit field of the address field, and it identifies data links and their service parameters.

C. Service Components

The major components of FRS are:

1. *User-to-Network Interface (UNI) Port and Access Line*

2. *Port Only*

   - UNI Port Only
   - Private Network-to-Network (NNI) Port Only

3. *Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)*

4. *PVC CIR Optional Features*

VIII. FRAME RELAY SERVICE (Continued)

5. *Backup UNI*

a. User-to-Network Interface (UNI) Port and Access Line

The UNI Port and Access Line forms the component which provides the customer access to the customer's serving wire center and interoffice transport from the customer's serving wire center to the Frame Relay switch. The UNI Port and Access Line is provided for use only with FRS and where facilities and conditions permit.

b. Port Only

Customers may access Port Only connections via Company-provided digital access facilities or via facilities provided by another carrier. The channel speed of the access channel must be sufficient to accommodate the Frame Relay port speed. When access facilities are provided by the Company, the associated regulations, rates and charges under the appropriate Company Service Catalog shall apply in addition to the regulations, rates and charges associated with FRS. Company-provided access facilities may also be provisioned under an Individual Case Basis (ICB) contract arrangement. Interconnection charges to connect access line services provided by the Company or another carrier may apply and will be billed separately. Any special construction or nonstandard charges assessed by the carrier supplying the access facilities will be the responsibility of the customer.

(1) UNI Port Only

The UNI Port Only provides for a user to carrier connection (i.e., end user customer to the Company).

(2) Private Network-to-Network (NNI) Port Only

The Private NNI port configuration is used for connecting two networks together for bi-directional messaging and is available on a private basis only. A Private NNI is a NNI port sold for the exclusive use of the customer.

c. Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)

Permanent Virtual Circuits (PVCs) are logical circuits that define a specific path for data sent by the customer to another location. These circuits are virtual because they are established in software tables and do not tie up capacity when not in use. This also allows multiple paths (PVCs) to be defined on any given port, thereby providing a single access line the capability to transmit data to multiple destinations.

Since multiple PVCs may be defined on one physical port, it is possible for the cumulative Committed Information Rates (CIRs) to exceed the physical bandwidth of that port. This is referred to as over-subscription and when this occurs, the aggregate CIR defined for that port and PVC will not be available at any point in time.

VIII. FRAME RELAY SERVICE (Continued)

The following types of PVC CIR are available:

(1) Intrazone

An Intrazone PVC is a logical channel path between two (2) customer Frame Relay ports within the same zone. Frame Relay Zones are found in Application of Rates and Charges following.

(2) Multi-jurisdictional

A Multi-jurisdictional PVC is a logical channel path between two customer Frame Relay ports, one being an interstate port and the other an intrastate port both located within the same Frame Relay zone. A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from the Telephone Companies FCC Tariff No. 8, Frame Relay Service are applicable.

d. PVC CIR Optional Features

(1) Interzone Transport

Interzone transport provides the mapping of a Frame Relay Intrazone PVC across one or more Frame Relay zone boundaries. Interzone Transport is available only with Intrazone PVC CIR at the rates set forth in Rates and Charges following.

(2) Frame Relay to ATM Service Interworking

Frame Relay to ATM Service Interworking provides for the conversion of Frame Relay packets to ATM cells and the conversion of ATM cells to Frame Relay packets. Frame Relay to ATM Service Interworking is available with Intrazone and Multi-jurisdictional PVC CIR at no additional charge.

(3) Backup UNI

Backup UNI service is a disaster avoidance and recovery feature that consists of a Primary UNI and a Backup UNI, and incorporates PVC remapping capabilities of the Frame Relay network. The Primary UNI terminates at the primary customer host location and in normal operation serves PVCs between the primary host location and various customer remote locations. A secondary UNI, is installed and terminated at the customer's backup host location, is designated by the customer as a Backup UNI. During normal operations, no PVCs are mapped to the Backup UNI. The customer will be required to purchase both Primary and Backup UNIs. In the event of a Primary UNI, primary digital access line or customer primary host location failure, the predefined PVC configuration can be remapped to the Backup UNI at the customer's request. Upon restoral of the Primary UNI service the customer must contact the Company to initiate remapping of PVCs from the Backup UNI back to the Primary UNI. A Backup UNI may serve as a backup to one or more Primary UNIs. The Backup UNI can only back up one Primary UNI at a time. A Backup UNI must be the same port speed or greater than the Primary UNI(s).

VIII. FRAME RELAY SERVICE (Continued)

D. Technical Specifications FRS conforms to the transmission specification standards in the following references: ANSI T1.602 Integrated Services Digital Network (ISDN) – Data Link Layer Signaling Specification for Application at the User-Network Interface – Issued 1989	
ANSI T1.606 Frame Relay Bearer Service, Architectural Framework and Service Description – Issued 1990	
ANSI T1.617 Integrated Services Digital Network (ISDN) – Digital Subscriber Signaling Specification for Frame Relay Bearer Service – Issued 1991	
ANSI T1.618 Integrated Services Digital Network (ISDN) – Core Aspects of Frame Relay Bearer Service – Issued 1991	
E. Service Provisioning FRS is available where facilities and conditions permit.	
FRS is provided to the customer in the form of the UNI Port and Access Line, UNI Port Only, Private NNI Port Only and CIR based PVCs. The UNI Port and Access Line forms the local access component to the customer's serving central office. The UNI Port Only and Private NNI Port Only include the electronic equipment necessary to interface the access line to the Frame Relay switch.	
PVCs are provisioned on a specified speed and CIR basis, depending upon the customer's request. The actual throughput of aggregated PVC bandwidths in use at the same time on the same port cannot exceed the port speed.	
The maximum CIR allowed is determined by the lower of the two port speeds connected by the PVC. The maximum CIR allowed for port speeds at 1.536 Mbps and below is seventy-five percent (75%) of the lower of the two (2) port speeds. For port speeds above 1.536 Mbps to 44.736 Mbps, the maximum CIR allowed is fifty percent (50%) of the lower of the two (2) port speeds.	
The PVC must be associated with at least one Frame Relay port. A Frame Relay port can be associated with multiple PVCs.	
The customer subscribing to a Port Only or Port and Access Line will be referred to as the controller of the Frame Relay port. A separate entity may, with written authorization from the controller, subscribe to a PVC that allows communication between entities. A disconnect of a PVC does not result in the disconnect of the underlying access line and port. Only the controller may order the disconnect of the FRS.	
The Frame Relay port with PVC CIR capacity may be ordered and billed separately from an associated Frame Relay port and PVC, and can have different customers as controllers.	
4 Mbps, 6 Mbps, 10 Mbps and 22 Mbps speeds are provisioned utilizing 44.736 Mbps of transport bandwidth; no other service(s) may utilize the remaining bandwidth.	

VIII. FRAME RELAY SERVICE (Continued)

F. Special Conditions

Maintenance Window:

Occasionally, in order to perform software updates and other maintenance, it may be necessary to take the Frame Relay switch out of service, during the predetermined maintenance window of 11:00 PM to 8:00 AM. In these cases, all attempts will be made to notify the customer in advance as to the time and duration of these outages. The Company reserves the right to temporarily interrupt the FRS at other times in emergency situations.

G. Obligations of the Customer

Where FRS is available for use in connection with communications systems or equipment provided by a customer or user, the operating characteristics of such systems or equipment shall be such as not to interfere with any services offered by the Company. Such use is subject to the further provisions that the equipment provided by the customer or user does not endanger the safety of the Company's employees or the public; damage, harm, require change in or alteration of the equipment or other services of the Company; interfere with the proper operation of the Company's equipment or otherwise injure the public in its use of the Company's services. Upon notice from the Company that the equipment provided by the customer or user is causing, or is likely to cause, such hazard or interference, the customer shall take such steps as shall be necessary to remove or prevent such hazard or interference.

The customer, upon request, shall furnish such information as may be required to permit the Company to design and maintain the FRS it offers and to assure that the service arrangement is in compliance with the regulations contained herein.

It shall be the responsibility of the customer to ensure the continuing compatibility of the customer-provided equipment that is used in conjunction with the FRS. The CPE shall be in compliance with the rules and regulations specified in this Service Catalog.

The customer shall be responsible for obtaining permission for the Company's agents or employees to enter the premises of the customer at any reasonable hour for the purpose of installing, inspecting, repairing, or, upon termination of the service, removing the service components of the Company.

At service subscription, the customer must specify the CIR and is expected to provide the DLCI and the B(e) for each PVC ordered.

Error correction is the responsibility of the customer's terminal equipment and/or applications. If the FRS network experiences congestion or failures, customer data may be discarded. In addition, frames that are received in excess of the Maximum Burst Rate (MBR), with bad addresses, or other errors will be discarded on ingress to the network. The customer's Frame Relay terminal equipment has the responsibility for retransmitting frames that are discarded due to errors or network congestion.

The customer is responsible for provisioning the inside wire from the network interface to the Frame Relay compatible equipment.

VIII. FRAME RELAY SERVICE (Continued)

A customer ordering Backup UNI service is responsible for the following:

- Determining network configuration before and after the activation of Backup UNI service.
- Providing the Company with the appropriate information required for joint development of the Backup UNI database.
- Maintaining its own port configurations and router tables for seamless changes from the Primary UNI to the Backup UNI. The customer must use the same addressing scheme on routers connected to the primary and backup sites.
- Contacting the Company to request all activations and deactivations of Backup UNI service.

H. Obligations of the Company

The responsibility of the Company shall be limited to furnishing network equipment suitable for FRS and to the maintenance and operation of such equipment in a manner proper for such service. Subject to this responsibility, the Company shall not be responsible for the through transmission of signals generated by the customer-provided equipment or system, or for the quality of, or defects in, such transmission or the reception of signals by such equipment or systems.

The Company shall not be responsible for installation, operation or maintenance of any terminal equipment, data unit or communications system provided by a customer or user. The Company is not responsible for adapting FRS to the technological requirements of any specific customer equipment.

When a customer orders FRS which is relayed to Frame Relay networks of other carriers, the Company will provide advisory assistance as a part of the establishment of this service.

The Company shall not be responsible to the customer or user if changes in any of the equipment, operations or procedures of the Company used in the provision of FRS render any facilities provided by the customer or user obsolete or require modification or alteration of such equipment or system or otherwise affect its use or performance, provided the Company has met any applicable information disclosure requirements otherwise required by law.

The Company undertakes the responsibility to maintain and repair the service that it furnishes. Network equipment installed by the Company on the customer's premises shall be and remain the property of the Company. The customer or user may not rearrange, disconnect, remove, attempt to repair, remote test, or interface with any network equipment installed by the Company without prior written consent by the Company.

The Company, by written notice to the customer and without incurring liability, may immediately discontinue the furnishing of FRS upon nonpayment of any sum due to the Company or a violation of any condition governing the furnishing of service.

The Company has the service responsibility up to and including the network interface.

VIII. FRAME RELAY SERVICE (Continued)

I. Special Facilities Routing

The customer may request that the facilities used to provide FRS be specially routed. Additional charges will apply based on cost.

J. Acceptance Testing

At the customer's request, the Company will cooperatively test at the time of installation at no additional charge. Acceptance tests will include tests for the parameters applicable to the service as specified in the order for service.

K. Application of Rates and Charges

1. *Rates Elements*

The following rate elements are applicable to FRS:

a. UNI Port and Access Line

b. Port Only

- UNI Port Only
- Private NNI Port Only

c. PVC CIR

d. PVC CIR Optional Features

e. Subsequent PVC CIR Charge

f. Backup UNI

g. Software Change Charge

(1) UNI Port and Access Line

A monthly recurring charge based on the speed of the port connection applies per port for each physical connection to the network supporting FRS. In addition, a nonrecurring charge applies to the month-to-month plan. Nonrecurring charges do not apply to UNI Port and Access Line on a Term Payment Plan (TPP). UNI Port and Access Line is offered on a month-to-month basis or as a TPP of one (1) year, three (3) years, or five (5) years.

(2) Port Only – UNI Port Only and Private NNI Port Only

A monthly recurring charge based on the speed of the port connection applies per port for each Port Only interface. In addition, a nonrecurring charge applies to the month-to-month plan. Nonrecurring charges do not apply to Port Only offered on a TPP. Port Only is offered on a month-to-month basis or as a TPP of one (1) year, three (3) years, or five (5) years.

VIII. FRAME RELAY SERVICE (Continued)

Refer to Service Components, Port Only preceding for the rules and regulations associated with Port Only digital access facilities.

h. Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)

(1) Intrazone

A monthly recurring charge, based on CIR capacity, applies for each PVC requested by the customer. See Frame Relay Zones following.

(2) Multi-jurisdictional

A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from the Telephone Companies FCC Tariff No. 8, Frame Relay Service are applicable.

i. PVC CIR Optional Features

(1) Interzone Transport

A monthly recurring charge, based on CIR capacity, applies for each application of Interzone Transport and is in addition to the applicable charges for Intrazone PVC CIR. Interzone Transport is available only with Intrazone PVC CIR.

(2) Frame Relay to ATM Service Interworking

Frame Relay to ATM Service Interworking is available with Intrazone and Multi-jurisdictional PVC CIR at no additional charge.

j. Subsequent PVC CIR Charge

A nonrecurring charge applies when a customer orders additional PVC CIR subsequent to the initial port installation.

k. Backup UNI

A nonrecurring charge applies when a customer requests an activation of the Backup UNI service. No additional charges are applied upon deactivation of Backup UNI service.

l. Software Change Charge

A nonrecurring charge applies per order, per UNI or Private NNI, when a customer requests a PVC parameter change (i.e., CIR, burst, DLCI re-map to a different host or remote, etc.). For each service order issued, the charge will be one Software Change Charge regardless of the number of changes made.

VIII. FRAME RELAY SERVICE (Continued)

2. *Frame Relay Zones*

Zone	Office
Everett/Redmond	Bothell
	Everett
	Mount Vernon
	Redmond
Kennewick/Wenatchee	Kennewick
	Wenatchee

3. *Service Charges*

Unless otherwise stated in this Service Catalog, nonrecurring charges applicable to FRS are in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

4. *Minimum Period*

The minimum period for FRS is one month except when the customer subscribes to a TPP. When PVCs are added to existing FRS, the minimum period for the PVC is one month.

5. *Term Payment Plan (TPP)*

The UNI Port and Access Line, UNI Port Only and Private NNI Port Only rate elements are available under a TPP. PVC CIRs are not offered under TPP.

Payment periods of one (1) year, three (3) years, and five (5) years are available to all customers at the applicable rates set forth in Rates and Charges following.

a. Changes to a TPP period

Prior to the completion of the selected TPP period, the customer may elect to convert to a new TPP period of the same or different length, subject to the following conditions:

- No credit toward the new payment period will be given for payments made under the original TPP arrangement.
- Nonrecurring charges will not be reapplied for existing service(s).
- If the value of the new TPP is less than the remaining value of current TPP, the change to the new TPP period constitutes a disconnect of the existing TPP service and termination liability charges as set forth in General Regulations, Section *III.*, Termination Liability of this Service Catalog, will apply.

Conversion to a different TPP or to a month-to-month option will require the customer to submit an order. If no other changes are requested, no nonrecurring charges will apply.

VIII. FRAME RELAY SERVICE (Continued)

b. Termination Liability

In the event FRS is terminated by the customer prior to completion of the initial term commitment period, Termination Liability Charges, as set forth in General Regulations, Section *III.*, Termination Liability of this Service Catalog, will apply.

6. *Service Rearrangements*

a. Additions to Service

With the exception of PVCs, when service elements are added to an existing service, the added elements must meet the minimum period requirements associated with the service to which they are added. When PVCs are added to an existing FRS, the minimum period for the added PVCs is one (1) month.

Nonrecurring charges will apply for all additions to existing services or optional features for which nonrecurring charges normally apply at installation.

Related monthly rates and nonrecurring charges for additions(s) to service are the rates and charges in effect at the time of the addition(s).

b. Administrative Changes

Administrative changes to existing service will be made without charge(s) to the customer. Administrative changes may include but are not limited to the following:

- Change of customer name, e.g., XYZ Company to XYZ Communications;, i.e., the customer or record does not change but rather the customer of record changes its name.
- Change of customer premises address when the change of address is not a result of a physical relocation of facilities;
- Change in billing data (name, address, or contact name or telephone number); and,
- Change of customer contact name or telephone number.

c. Conversion of Service to Another Jurisdiction

Conversion of service to another jurisdiction will be treated as a disconnect of service and establishment of new service. However, if no other changes are ordered, no installation charges will apply.

d. Moves

When the customer requests a move or relocation of the UNI Port and Access Line, UNI Port Only or Private NNI Port Only, the move or relocation will be treated as a termination of the existing service and the establishment of a new service.

VIII. FRAME RELAY SERVICE (Continued)

e. Upgrade to Higher Speed Service

The customer may elect to upgrade service(s) to a higher speed during a TPP period, subject to the following conditions:

- Both the existing and the new service are provided solely by the Company.
- The order to discontinue service at an existing speed or capacity and the order for the upgraded service are received by the Company at the same time.
- The new service will be provided at the same customer location as the discontinued service.

L. Rates and Charges

1. *UNI Port and Access Line*

	Nonrecurring Charge[7]	Monthly Rate
56 Kbps		
Month-to-Month	$495.00	$150.00
One Year	0.00	150.00
Three Years	0.00	130.00
Five Years	0.00	120.00
128 Kbps		
Month-to-Month	495.00	210.00
One Year	0.00	205.00
Three Years	0.00	185.00
Five Years	0.00	170.00
256 Kbps		
Month-to-Month	595.00	300.00
One Year	0.00	300.00
Three Years	0.00	270.00
Five Years	0.00	250.00
384 Kbps		
Month-to-Month	595.00	350.00
One Year	0.00	350.00
Three Years	0.00	335.00
Five Years	0.00	315.00

Continued on next page…

[7] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

VIII. FRAME RELAY SERVICE (Continued)

Continued from previous page…

	Nonrecurring Charge[8]	Monthly Rate
DS1 (1.536 Mbps)		
Month-to-Month	$595.00	$530.00
One Year	0.00	510.00
Three Years	0.00	480.00
Five Years	0.00	450.00
4 Mbps		
Month-to-Month	795.00	2,650.00
One Year	0.00	2,540.00
Three Years	0.00	2,300.00
Five Years	0.00	2,100.00
6 Mbps		
Month-to-Month	795.00	3,000.00
One Year	0.00	2,875.00
Three Years	0.00	2,600.00
Five Years	0.00	2,400.00
10 Mbps		
Month-to-Month	795.00	3,325.00
One Year	0.00	3,180.00
Three Years	0.00	2,850.00
Five Years	0.00	2,650.00
22 Mbps		
Month-to-Month	795.00	3,500.00
One Year	0.00	3,350.00
Three Years	0.00	3,000.00
Five Years	0.00	2,800.00
DS3 (44.736 Mbps)		
Month-to-Month	795.00	3,750.00
One Year	0.00	3,550.00
Three Years	0.00	3,175.00
Five Years	0.00	2,950.00

[8] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

VIII. FRAME RELAY SERVICE (Continued)

2. *Port Only*

a. UNI Port Only[9], per port

	Nonrecurring Charge[10]	Monthly Rate
56 Kbps		
Month-to-Month	$95.00	$42.00
One Year	0.00	40.00
Three Years	0.00	35.00
Five Years	0.00	32.00
128 Kbps		
Month-to-Month	150.00	75.00
One Year	0.00	70.00
Three Years	0.00	65.00
Five Years	0.00	60.00
256 Kbps		
Month-to-Month	150.00	115.00
One Year	0.00	110.00
Three Years	0.00	105.00
Five Years	0.00	100.00
384 Kbps		
Month-to-Month	150.00	150.00
One Year	0.00	145.00
Three Years	0.00	140.00
Five Years	0.00	130.00
DS1 (1.536 Mbps)		
Month-to-Month	295.00	225.00
One Year	0.00	220.00
Three Years	0.00	210.00
Five Years	0.00	200.00
4 Mbps		
Month-to-Month	$395.00	$500.00
One Year	0.00	450.00
Three Years	0.00	385.00
Five Years	0.00	360.00

Continued on the next page…

[9] Refer to Service Components, Port Only preceding for the regulations associated with Port Only digital access facilities. Reference the Facilities for Intrastate Access Service Catalog, Special Access for appropriate SAL and Transport Rate.

[10] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

VIII. FRAME RELAY SERVICE (Continued)

Continued from previous page…

	Nonrecurring Charge[11]	Monthly Rate
6 Mbps		
Month-to-Month	395.00	550.00
One Year	0.00	495.00
Three Years	0.00	420.00
Five Years	0.00	395.00
10 Mbps		
Month-to-Month	395.00	600.00
One Year	0.00	540.00
Three Years	0.00	460.00
Five Years	0.00	432.00
22 Mbps		
Month-to-Month	395.00	750.00
One Year	0.00	675.00
Three Years	0.00	575.00
Five Years	0.00	540.00
Ds3 (44.736 Mbps)		
Month-to-Month	395.00	900.00
One Year	0.00	810.00
Three Years	0.00	690.00
Five Years	0.00	650.00

[11] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

VIII. FRAME RELAY SERVICE (Continued)

b. Private NNI Port Only[12], per port

	Nonrecurring Charge[13]	Monthly Rate
384 Kbps		
Month-to-Month	$150.00	$150.00
One Year	0.00	145.00
Three Years	0.00	140.00
Five Years	0.00	130.00
DS1 (1.536 Mbps)		
Month-to-Month	295.00	225.00
One Year	0.00	220.00
Three Years	0.00	210.00
Five Years	0.00	200.00
DS3 (44.736 Mbps)		
Month-to-Month	395.00	900.00
One Year	0.00	810.00
Three Years	0.00	690.00
Five Years	0.00	650.00

[12] Refer to Service Components, Port Only preceding for the regulations associated with Port Only digital access facilities. Reference the Facilities for Intrastate Access Service Catalog, Special Access for appropriate SAL and Transport Rate.

[13] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

VIII. FRAME RELAY SERVICE (Continued)

3. *PVC CIR, per PVC*

Intrazone	Monthly Rate
4 Kbps	$4.00
8 Kbps	5.00
16 Kbps	6.00
28 Kbps	7.00
32 Kbps	8.00
42 Kbps	11.00
48 Kbps	13.00
64 Kbps	15.00
96 Kbps	22.00
128 Kbps	27.00
192 Kbps	36.00
256 Kbps	42.00
288 Kbps	48.00
384 Kbps	54.00
512 Kbps	60.00
576 Kbps	65.00
768 Kbps	70.00
1152 Kbps	80.00
1536 Kbps	90.00
2 Mbps	95.00
3 Mbps	100.00
4 Mbps	120.00
5 Mbps	142.00
6 Mbps	164.00
7 Mbps	186.00
8 Mbps	207.00
9 Mbps	229.00
10 Mbps	250.00
11 Mbps	266.00
12 Mbps	282.00
13 Mbps	298.00
14 Mbps	314.00
15 Mbps	330.00
16 Mbps	346.00
17 Mbps	362.00
18 Mbps	378.00
19 Mbps	394.00
20 Mbps	410.00
21 Mbps	426.00
22 Mbps	442.00

A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from The Telephone Companies FCC Tariff No. 8, Frame Relay Service are applicable.

VIII. FRAME RELAY SERVICE (Continued)

4. *PVC CIR Optional Features, per PVC*

Interzone[14]	Monthly Rate
4 Kbps	$13.00
8 Kbps	14.00
16 Kbps	15.00
28 Kbps	16.00
32 Kbps	17.00
42 Kbps	20.00
48 Kbps	25.00
64 Kbps	30.00
96 Kbps	38.00
128 Kbps	43.00
192 Kbps	59.00
256 Kbps	73.00
288 Kbps	82.00
384 Kbps	91.00
512 Kbps	110.00
576 Kbps	115.00
768 Kbps	125.00
1152 Kbps	145.00
1536 Kbps	160.00
2 Mbps	180.00
3 Mbps	195.00
4 Mbps	205.00
5 Mbps	243.00
6 Mbps	286.00
7 Mbps	329.00
8 Mbps	373.00
9 Mbps	416.00
10 Mbps	460.00
11 Mbps	502.00
12 Mbps	544.00
13 Mbps	586.00
14 Mbps	628.00
15 Mbps	670.00
16 Mbps	704.00
17 Mbps	738.00
18 Mbps	772.00
19 Mbps	806.00
20 Mbps	840.00
21 Mbps	869.00
22 Mbps	898.00

Continued on next page…

[14] The monthly rate applies in addition to applicable rates for Intrazone PVC CIR.

VIII. FRAME RELAY SERVICE (Continued)

Continued from previous page…		
Frame Relay to ATM Service Interworking	Monthly Rate No Charge	
5. *Subsequent PVC CIR Charge*		
Subsequent PVC CIR Charge, Each	Nonrecurring Charge[15] $20.00	
6. *Backup UNI*		
Backup UNI, Per Activation	Nonrecurring Charge[15] $200.00	
7. *Software Change Charge*		
Software Change Charge, Per UNI or Private NNI Order	Nonrecurring Charge[15] $30.00	

[15] Applies in lieu of service charges found elsewhere in this Service Catalog or other Company Service Catalogs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS

A. General

Service offerings listed herein are classified as being limited to existing customers at the same location.

Unless otherwise specified in this Section, services limited to existing customers will continue to be offered subject to all the Rules and Regulations of the Service Catalog the same as would be applicable if the service offering were not limited.

B. Frame Relay – Bundled Rate Elements[16]

	Monthly Rate
Central Office Based Channelization	
Frame Relay with Port	
56 Kbps	$30.00
128 Kbps	50.00
256 Kbps	80.00
384 Kbps	105.00
Customer Premises Based Channelization	
Frame Relay with Port	
56 Kbps	40.00
128 Kbps	65.00
256 Kbps	95.00
384 Kbps	120.00
Frame Relay Service Activation, includes Company provided Frame Relay Assembly/Disassembly	
56 Kbps	80.00
128 Kbps	125.00
256 Kbps	155.00
384 Kbps	180.00

[16] Limited to existing customers as of November 10, 1998.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

C. Frame Relay I Service (Local)[17]

1. *Conditions*

Customers with grandfathered Frame Relay rate elements may choose to make additions to service, deletions of service, changes to service (upgrades), or a complete rate restructure (conversion) of their grandfathered services. In the event a customer initiates any of the above actions, the following conditions will apply:

a. Additions

Additions to the customer's existing service will be charged at the new Service Catalog rates and will not be considered a restructure of the customer's billing. All existing services as of the effective date of this Service Catalog will continue to be charged at the grandfathered rates shown in the Rates section following.

b. Deletions

Deletions to a customer's service will not be considered a restructure of the customer's billing. All existing services as of the effective date of this Service Catalog will continue to be charged at the grandfathered rates shown in the Rates section following.

c. Moves

Moving a service (i.e., from location A to location B) will be considered a deletion of existing service and addition of new service, and the rate elements as defined in "Additions" and "Deletions" will apply. A move will not be considered a rate restructuring of the customer's service. All remaining grandfathered services will continue to be billed at the grandfathered rates.

d. Upgrades

Upgrades to grandfathered service will be considered a disconnect (deletion) of the grandfathered service and an addition of new service. Upgrade charges will apply as detailed under Frame Relay Service in Section *V.*, Rates. An upgrade will not be considered a restructure of customer billing.

e. Rate Restructure

In the event a customer wishes to take advantage of the new rate structure, a complete conversion from the grandfathered rate structure to the new rate structure will be required. Conversion of individual rate elements will not be allowed.

[17] Limited to existing customers as of November 10, 1998.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

2. *Rates*

a. Frame Relay with Port and Access, each

	Nonrecurring Charge	Monthly Rate
56 Kbps		
Month-to-Month	$200.00	$75.00
One Year	200.00	70.00
Three Year	200.00	65.00
Five Year	200.00	60.00
128 Kbps		
Month-to-Month	200.00	225.00
One Year	200.00	215.00
Three Year	200.00	205.00
Five Year	200.00	195.00
256 Kbps		
Month-to-Month	200.00	300.00
One Year	200.00	275.00
Three Year	200.00	250.00
Five Year	200.00	225.00
384 Kbps		
Month-to-Month	200.00	375.00
One Year	200.00	350.00
Three Year	200.00	325.00
Five Year	200.00	300.00
1.544 Mbps		
Month-to-Month	200.00	410.00
One Year	200.00	380.00
Three Year	200.00	360.00
Five Year	200.00	340.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

b. Frame Relay with Port Only, each

	Nonrecurring Charge	Monthly Rate
56 Kbps		
Month-to-Month	$40.00	$55.00
One Year	40.00	50.00
Three Year	40.00	45.00
Five Year	40.00	40.00
128 Kbps		
Month-to-Month	40.00	110.00
One Year	40.00	100.00
Three Year	40.00	90.00
Five Year	40.00	80.00
256 Kbps		
Month-to-Month	40.00	200.00
One Year	40.00	180.00
Three Year	40.00	170.00
Five Year	40.00	150.00
384 Kbps		
Month-to-Month	40.00	275.00
One Year	40.00	250.00
Three Year	40.00	225.00
Five Year	40.00	200.00
1.544 Mbps		
Month-to-Month	40.00	300.00
One Year	40.00	275.00
Three Year	40.00	250.00
Five Year	40.00	225.00
Frame Relay PVC, each		
2 to 10 PVCs	20.00	8.00
11 to 20 PVCs	20.00	7.00
21 or more PVCs	20.00	6.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

D. Frame Relay II (Access)[18]

1. *Conditions*

The rate elements contained in the Rates in this section are grandfathered with the following conditions:

a. Additions

Additions to the customer's existing service will be charged at the new Service Catalog rates and will not be considered a restructure of the customer's billing. All existing services as of the effective date of this Service Catalog will continue to be charged at the grandfathered rates shown in the Rates section following.

b. Deletions

Deletions to a customer's service will not be considered a restructure of the customer's billing. All existing services as of the effective date of this Service Catalog will continue to be charged at the grandfathered rates shown in the Rates section following.

c. Moves

Moving a service (i.e., from location A to location B) will be considered a deletion of existing service and addition of new service, and the rate elements as defined in "Additions" and "Deletions" will apply. A move will not be considered a rate restructuring of the customer's service. All remaining grandfathered services will continue to be billed at the grandfathered rates.

d. Upgrades

Upgrades to grandfathered service will be considered a disconnect (deletion) of the grandfathered service and an addition of new service. Upgrade charges will apply as detailed under Frame Relay Service in Section *V.*, Rates. An upgrade will not be considered a restructure of customer billing.

e. Rate Restructure

In the event a customer wishes to take advantage of the new rate structure, a complete conversion from the grandfathered rate structure to the new rate structure will be required. Conversion of individual rate elements will not be allowed.

[18] Limited to existing customers as of November 10, 1998.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

2. *Rates*

a. Standard Arrangements

Frame Relay with Port and Access Line, each[19]	Nonrecurring Charge	Monthly Rate
56 Kbps	$200.00	$75.00
128 Kbps	200.00	225.00
256 Kbps	200.00	300.00
384 Kbps	200.00	375.00
1.544 Mbps	550.00	410.00
Frame Relay with Port Only, each[19]		
56 Kbps	40.00	55.00
128 Kbps	40.00	110.00
256 Kbps	40.00	200.00
384 Kbps	40.00	275.00
1.544 Mbps	40.00	300.00
Frame Relay PVC, each		
2 to 10 PVCs	20.00	8.00
11 to 20 PVCs	20.00	7.00
21 or more PVCs	20.00	6.00

[19] Includes one PVC.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

b. Optional Payment Plan (OPP)

Frame Relay with Port and Access Line, each[20]	Nonrecurring Charge	Monthly Rate
56 Kbps		
One Year OPP	$200.00	$70.00
Three Year OPP	200.00	65.00
Five Year OPP	200.00	60.00
128 Kbps		
One Year OPP	200.00	215.00
Three Year OPP	200.00	205.00
Five Year OPP	200.00	195.00
256 Kbps		
One Year OPP	200.00	275.00
Three Year OPP	200.00	250.00
Five Year OPP	200.00	225.00
384 Kbps		
One Year OPP	200.00	350.00
Three Year OPP	200.00	325.00
Five Year OPP	200.00	300.00
1.544 Mbps		
One Year OPP	550.00	380.00
Three Year OPP	550.00	360.00
Five Year OPP	550.00	340.00
Frame Relay with Port Only, each[20]		
56 Kbps (DDS)		
One Year OPP	40.00	50.00
Three Year OPP	40.00	45.00
Five Year OPP	40.00	40.00
128 Kbps (2 x 64 Kbps/FT1)		
One Year OPP	40.00	100.00
Three Year OPP	40.00	90.00
Five Year OPP	40.00	80.00
256 Kbps (4 x 64 Kbps/FT1)		
One Year OPP	40.00	180.00
Three Year OPP	40.00	170.00
Five Year OPP	40.00	150.00
384 Kbps (6 x 64 Kbps/FT1)		
One Year OPP	40.00	250.00
Three Year OPP	40.00	225.00
Five Year OPP	40.00	200.00
1.544 Mbps (DS1)		
One Year OPP	40.00	275.00
Three Year OPP	40.00	250.00
Five Year OPP	40.00	225.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

E. Transport LAN Connect[21]

1. *General*

Transport LAN Connect (TLC) is an intra-exchange and inter-exchange network transport service provisioned via private fiber optic-based facilities. TLC does not provide for direct inter-connection with public networks (i.e., Public ATM, Public Frame-Relay, etc.). TLC offers inter-site transport of the following to customer premises facilities:

DS1 (1.544 Mbps)
Ethernet 10 Base-T (10 Mbps)
Fast Ethernet 100 Base-TX (100 Mbps)
OC3c ATM (155 Mbps)

2. *Conditions*

a. Service Description

TLC's recommended configurations conform to protocol standards publications 802.3 for 10 Base-T and 802.3u for 100 Base-TX created by the Institute of Electrical and Electronic Engineering and/or American National Standards Institute (ANSI), publications T1.511, T1.627, and T1.630.

TLC is available where facilities and conditions permit.

b. Service Provisioning

TLC Service can be provisioned for inter-site transport between DS1, Ethernet, Fast Ethernet, and OC3c ATM customer premises facilities.

The Company may set arrangements for fiber on behalf of the customer. Fiber arranged by the Company will be billed at the rates provided by the underlying carrier. Any special construction or non-standard charges assessed by the Company supplying the fiber will also be the responsibility of the customer.

[20] Includes one PVC.

[21] Limited to existing customers as of February 1, 2001.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

c. Termination Liability

TLC services are offered on a contract basis for periods of one (1), two (2), three (3), or five (5) years. All contracts are subject to the termination liability charge. Prior to the expiration of the contract period, the customer must notify the Company of the customer's choice of the following options:

- convert to a new contract period of the same or different length,
- continue at the completed contract period's rate, but on a month-to-month basis, or
- discontinue service

If the customer does not notify the Company of one of the above options prior to the expiration of the contract period, then the Company will continue to bill the customer at the completed contract period's rate on a month-to-month basis.

If prior to the expiration of a contract the customer converts to a contract period with a longer period of time, then the customer (at customer's option) may receive credit for the elapsed time under the old contract to be applied toward the new contract period.

If the customer orders additional service subsequent to existing service, then the contract period for the added service will be coterminous with the contract period in effect for the existing service. The rate for the added service will be for the same contract period option as the existing service.

The termination liability charge will apply when any portion of the service that is subject to the termination liability charge is terminated prior to completion of the elected contract period. The customer's liability will be equal to twenty-five percent (25%) of the monthly rate for the applicable service terminated times the number of months remaining in the contract period.

d. Obligations of the Company

The Company is responsible for service up to and including the TLC interface port.

The Company shall provision service over facilities suitable for TLC transmission, where available, for the effective maximum line rate of a DS1 (1.544 Mbps), Ethernet (10 Mbps), Fast Ethernet (100 Mbps), or OC3c (155 Mbps concatenated).

Occasionally, in order to perform software updates and other maintenance, it may be necessary to take the TLC node out of service, during the predetermined maintenance window of 12:01 AM to 6:00 AM. In these cases, all attempts will be made to notify the customer in advance as to the time and duration of these outages. The Company reserves the right to temporarily interrupt TLC Service at other times in emergency situations.

e. Obligations of the Customer

The customer is responsible for maintaining the facilities from the customer's provided equipment to the OC3c Base Node. If fiber does not already exist between the OC3c Base Node and the serving wire center, the customer will be responsible for the cost of any special construction required to provision such fiber.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

	The customer must provide compatible equipment in accordance with interface specifications defined in applicable IEEE and/or ANSI Standards.	
	The customer is responsible for installation, operation and maintenance of any Customer Provided Equipment (CPE).	
	Customers who choose Ethernet (10 or 100 Mbps) must specify if they intend to utilize full or half duplex. Customers who choose OC3c (155 Mbps) must provide the virtual circuit requirements. All customers must specify the originating and terminating locations.	
	The customer shall be responsible for obtaining permission for the Company's agents or employees to enter customer's designated locations(s) at any reasonable hour for the purpose of installing, inspecting, repairing, or, upon termination of the service, removing the service components of the Company.	
	The customer must provide to the Company a point of contact with information to include the contact name, telephone number, mailing address, and electronic mail (e-mail) address for notification purposes.	
	In order for the facilities to work properly, it is recommended that the customer not exceed facility capacity by over-booking or over-subscribing the bandwidth of the Inter-Node Transport Ports.	
f.	Configurations (1) Recommended Configurations The recommended TLC inter-node configurations include star (i.e., hub and spoke) and/or standard non-split fiber ring facility of up to eight (8) nodes that are allocated (booked) at up to one hundred percent (100%) of Inter-Node Transport Port bandwidth. These configurations require either DS-1, Ethernet (10 Base-T), Fast Ethernet (100 Base-TX), and/or OC3c ATM Interface Ports at each node as required by the customer's specific applications.	
	(2) Configurations That Are not Recommended (a) Over-Booked Configurations Over-booking of Inter-Node Transport Ports is not recommended due to their inherent degradation potential for quality and performance. In an over-booked configuration, the Inter-Node Transport Ports are allocated (booked) at over one hundred percent (100%). For example, two (2) Fast Ethernet 100 Base-TX (100 Mbps each) Interface Ports competing for the bandwidth of a single OC3c (155 Mbps) Inter-Node Transport Port. In this example, the booking ratio is 200/155 Mbps or approximately one hundred thirty percent (130%) booking.	

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(b) Split Fiber Ring Configurations

Split fiber ring configurations are not recommended due to their inherent degradation potential for quality and performance. In a split fiber ring configuration, the Inter-Node Transport Port's transmit and receive fibers of a TLC node are "split" with the transmit fiber going to one TLC node and the receive fiber going to another.

(c) Non-Split Fiber Ring Configurations of More Than 8 Nodes

Standard non-split fiber ring configurations of more than eight (8) nodes are not recommended due to their inherent degradation potential for quality and performance. In a standard non-split fiber ring configuration, both the transmit and receive fibers of a TLC node's Initial Inter-Node Transport Port are interconnected to one TLC node, and both the transmit and receive fibers of the Additional Inter-Node Transport Port are interconnected to another TLC node.

3. *Definitions*

a. OC3c Base Node (Base TLC platform)

Provides the node's TLC hardware/software as well as the Initial OC3c Inter-Node Transport Port. The OC3c Base Node is located on the customer's premises.

b. Additional OC3c Inter-Node Transport Port

Provides additional OC3c Inter-Node Transport Port to an existing OC3c Base Node to support bandwidth requirement of inter-site transport.

c. Interface Ports

Interface Ports provide the interface between the provisioned facility from CPE and the OC3c Base Node for point-to-point or multi-point transport. Interface Ports represent the customer demarcation point for TLC.

(1) DS1 Circuit Interface Port (Per port)

Provides Interface Port required to support point-to-point transport for a DS1 circuit.

(2) Ethernet 10 Base-T Interface Port (Per port)

Provides Interface Port required to support point-to-point or multi-point transport of Ethernet 10 Base-T.

(3) Fast Ethernet 100 Base-TX Interface Port (Per port)

Provides Interface Port required to support point-to-point or multi-point transport of Fast Ethernet 100 Base-TX.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(4) OC3c ATM Interface Port (Per port)

Provides ATM UNI Interface Port required to support point-to-point or multi-point transport of private ATM virtual circuits. Virtual circuits must be ATM adaptation layer 5 (AAL-5) Unspecified Bit Rate (UBR) only.

d. OC3c Inter-Node Transport IOF Termination (Per inter-office termination basis)

Provides termination of IOF transport required to support TLC inter-site configurations involving more than one serving wire center.

e. OC3c Inter-Node Transport IOF Mileage (Per airline mile basis)

Provides applicable mileage charges for IOF transport required to support TLC inter-site configurations involving more than one serving wire center.

4. *Rate Regulations*

TLC Service consists of the OC3c Base Node (which includes the Initial OC3c Inter-Node Transport Port), Additional Inter-Node Transport Port(s), Interface Ports, IOF Terminations and IOF Mileage.

OC3c Base Nodes are charged on a per site basis, thus a minimum of two (2) nodes must be ordered for any point-to-point inter-site transport. For example, inter-site transport between locations A and B requires an OC3c Base Node at Site A and another OC3c Base Node at Site B. (Each OC3c Base Node includes the Initial Inter-Node Transport Port. Additional Inter-Node Transport Ports may be added to the OC3c Base Node to support bandwidth requirements of inter-site transport.)

Additional OC3c Inter-Node Transport Ports are charged on a per site basis, thus a minimum of two (2) ports must be ordered for any additional point-to-point transport. For example, additional OC3c transport between locations A and B requires an Additional OC3c Inter-Node Transport Port at Site A and another Additional OC3c Inter-Node Transport Port at Site B.

5. *Interface Ports*

DS1, Ethernet 10 Base-T, Fast Ethernet 100 Base-TX, and OC3c ATM Interface Ports are charged on a per site basis, thus a minimum of two (2) ports must be ordered for any point-to-point transport. For example, a DS1 circuit between locations A and B requires a DS1 Circuit Interface Port at Site A and another DS1 Circuit Interface Port at Site B.

OC3c Inter-Node Transport IOF Termination is charged on a per termination basis for IOF transport required to support TLC inter-site configurations which involve more than one (1) serving wire center, thus a minimum of two (2) terminations must be ordered for this type of point-to-point transport. For example, an inter-site configuration involving one serving wire center for location A and a different serving wire center for location B requires an OC3c IOF Termination at the serving wire center for Site A and another OC3c IOF Termination at the serving wire center for Site B.

OC3c Inter-Node Transport IOF Mileage is charged on a per airline mile basis for IOF transport required to support TLC inter-site configurations which involve more than one serving wire center.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

6. *Rates and Charges*

This service is no longer available to new customers.

	Nonrecurring Charge	Monthly Rate
OC3c Base Node		
One Year	$1,500.00	$1,400.00
Two Year	1,500.00	1,150.00
Three Year	1,500.00	1,100.00
Five Year	1,500.00	1,000.00
Additional OC3 Inter-Node Transport Port		
One Year	500.00	600.00
Two Year	500.00	550.00
Three Year	500.00	500.00
Five Year	500.00	450.00
Interface Ports		
DS1 Circuit Interface Port		
One Year	200.00	175.00
Two Year	200.00	150.00
Three Year	200.00	125.00
Five Year	200.00	100.00
Ethernet 10 Base-T Interface Port		
One Year	200.00	225.00
Two Year	200.00	200.00
Three Year	200.00	175.00
Five Year	200.00	150.00
Fast Ethernet 100 Base-TX Interface Port		
One Year	200.00	500.00
Two Year	200.00	475.00
Three Year	200.00	450.00
Five Year	200.00	400.00
OC3c ATM Interface Port		
One Year	500.00	800.00
Two Year	500.00	750.00
Three Year	500.00	700.00
Five Year	500.00	600.00
OC3c IOF Termination	0.00	160.00
OC3c Inter-Node Transport IOF Mileage, per airline mile	0.00	40.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

F. Asynchronous Transfer Mode (ATM)[22]

1. *Service Description*

Asynchronous Transfer Mode (ATM) Service is a form of "fast packet" switching service for high speed networks which require flexible bandwidth, high-performance transport and switching for connectivity between and among widely distributed customer locations. ATM is a cell-based, connection-oriented, switching and multiplexing technology designed to be a fast, general-purpose transfer mode for multiple services.

ATM Network Service conforms to protocol standards created by the ITU-T (Telecommunication Standardization Bureau of the International Telecommunication Union), formerly Consultative Committee for International Telegraph and Telephone (CCITT) and American National Standards Institute (ANSI), publications T1.511, T1.627 and T1.630.

ATM is a high-bandwidth medium with low delay and has the capability to be switched to a specific destination.

ATM Service is available where facilities and conditions permit.

2. *Service Provisioning*

ATM is a data networking technology that uses 53 Byte cells, consisting of a 5 Byte header which contains addressing, payload type and network priority information and a 48 Byte payload for data. The cells are transmitted through an ATM network in a "real time" (low delay in transmission) or "non-real time" sensitive manner on virtual channels.

ATM Service can be provisioned over DS1, DS3, OC3c, and OC12c access channels.

a. Uni Port and Access Line:

The customer can subscribe to ATM Service based on the speed of the port connection (i.e., DS1, DS3, OC3c or OC12c facilities) applicable for each physical connection to the network switch supporting ATM Service. A port is the entry point on the switch to which the customer is connected. Ports are available which allow connection to the ATM network at speeds of DS1 to OC12c. Each port can accommodate multiple PVCs. UNI Port and Access Lines are available on a one (1), three (3) or five (5) year Optional Payment Plan (OPP).

[22] Limited to existing customers as of October 1, 2009.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

b. Uni Port Only:

The customer can order Port Only access based on the speed of port connection (i.e., DS1, DS3, OC3c, or OC12c facilities) applicable for each access line or digital private line connection to the network switch supporting ATM Service. Each port can accommodate multiple PVCs. UNI Port Only is available on a one (1), three (3) or five (5) year Optional Payment Plan (OPP). The associated regulations, rates and charges from the Facilities for Intrastate Access Service Catalog, Section *VI.*, Special Access, are in addition to the rates and charges associated with the ATM rate elements. Local channel, interoffice channel mileage and hub termination rates for DS3, OC3c, and OC12c access channels shall be provisioned on an Individual Case Basis (ICB).

Permanent Virtual Circuits (PVCs) are logical circuits that define a specific path for data sent by the customer to another location. These circuits are virtual because they are established in software tables and do not tie up capacity when not in use. This also allows multiple paths (PVCs) to be defined on any given port, thereby providing a single access line the capability to transmit data to multiple destinations.

Permanent Virtual Path (PVP) provides for aggregation of multiple PVCs into a single path. The traffic management parameters for all PVCs in the PVP must be defined at the same level of service. All PVCs in the PVP must have the same originating and terminating end ports. The applicable SCR and PCR rates apply for the aggregate SCR and PCR of all the PVCs in the PVP.

If the information provided by the customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction, then rates from the Telephone Companies FCC Tariff No. 8 will apply.

The customer can subscribe to pricing scheme(s), which charge for Sustained Cell Rate (SCR). SCR is an amount of bandwidth that the Company commits to providing in the network for the customer traffic. SCR is set for every PVC defined.

The Company ATM switches are responsible for guaranteeing the traffic priority parameter ordered by the customer. Traffic prioritization parameters refer to priorities given to cell transmissions and sensitivity of cells to delay variation and loss within the network. Constant Bit Rate (CBR) traffic is given first priority, Variable Bit Rate-Real Time (VBR-rt) traffic is given second priority and Variable Bit Rate-Non Real Time (VBR-nrt) traffic is given third priority, based upon the traffic in the network at any given point in time.

There are three (3) traffic prioritization parameter categories:

- Constant Bit Rate (CBR)

  An ATM traffic management parameter that supports the transmission of a continuous bit stream of traffic from those applications such as video, voice, and circuit emulation, which require rigorous timing control and performance parameters.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

- Variable Bit Rate-Real Time (VBR-rt)

  An ATM traffic management parameter that allows for applications where a PVC requires low cell delay variation. For example, VBR-rt would be utilized for applications such as variable bit rate video compression, and packet voice and video, which are somewhat tolerant of delay.

- Variable Bit Rate-Non Real Time (VBR-nrt)

  An ATM traffic management parameter that allows for applications where a PVC can tolerate larger cell delay variation than VBR-rt. For example VBR-nrt would be utilized for applications such as data file transfers.

In ATM transmission, Peak Cell Rate (PCR) is the highest available rate of information that can be transferred on a VBR connection, and the continuous cell rate allowed for CBR. Cells exceeding the SCR and below the PCR will be limited to a maximum burst size.

The customer may purchase PCR in 1 Mbps increments.

Frame Relay to ATM Service Interworking:

An end user may send data from a premise location with a Frame Relay User to Network Interface (UNI) or a Network to Network Interface (NNI) to another premise with an ATM Service UNI. Frame Relay to ATM Service Interworking provides for the conversion of Frame Relay packets to ATM cells and the conversion of ATM Cells to Frame Relay packets. Frame Relay service(s) and ATM service(s) must be established in order to provision a Frame Relay to ATM Service Interworking PVC. This conversion occurs between bandwidth equivalent Committed Information Rates (CIRs) and SCRs. Cell conversion occurs at VBR-nrt.

3. *Obligations of the Company*

   The Company is responsible for service up to and including the network interface device.

The Company shall provision service over facilities suitable for ATM transmission, where available, for the effective maximum data rates of a DS1 (1.536 Mbps), DS3 (44.2 Mbps), OC3c (155 Mbps, concatenated) or OC12c (622.08 Mbps, concatenated).

Occasionally, in order to perform software updates and other maintenance, it may be necessary to take the ATM switch out of service, during the predetermined maintenance window of 12:01 AM to 6:00 AM. In these cases, all attempts will be made to notify the customer in advance as to the time and duration of these outages. The Company reserves the right to temporarily interrupt ATM Service at other times in emergency situations.

4. *Obligations of the Customer*

   The customer must provide compatible equipment in accordance with interface specifications defined in ANSI Standards for ATM services.

The customer is responsible for the installation, operation and maintenance of any Customer Provided Equipment (CPE).

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

The customer must specify the speed for each ATM port ordered. The customer must specify the SCR, PCR, and traffic management parameters at the time of the order for each PVC.

The customer shall be responsible for obtaining permission for the Company's agents or employees to enter the customer's designated location(s) at any reasonable hour for the purpose of installing, inspecting, repairing, or, upon termination of the service, removing the service components of the Company.

The customer must provide the Company a point of contact with information to include the contact name, telephone number, mailing address, and electronic mail (e-mail) address for notification purposes.

5. *Rate Regulations*

a. Minimum Period

The minimum period for ATM Network Service is one year, except when provided under an Optional Payment Plan (OPP) arrangement. The regulations applicable to ATM Network Service provided under an OPP arrangement are specified under the OPP Section following.

b. Rate Elements

(1) ATM UNI Port and Access Line

A nonrecurring charge and a monthly rate, based on the speed of the port connection (i.e., DS1, DS3, OC3c, or OC12c) apply per port for each ATM access line connection to the network supporting ATM Service. Each port can accommodate multiple PVCs.

(2) ATM UNI Port

A nonrecurring charge and a monthly rate, based on the speed of the port connection (i.e., DS1, DS3, OC3, or OC12c) apply per port for each ATM access channel connection to the network supporting ATM Service. Each port can accommodate multiple PVCs.

Special access rates to the nearest Company ATM switch are in addition to the ATM UNI Port charges and are available from the Facilities for Intrastate Access Service Catalog, Special Access, Section *VI.*. DS3, OC3c, and OC12c special access rate elements shall be provided on an Individual Case Basis (ICB). Any special construction or non-standard charges assessed by the Company will also be the responsibility of the customer.

(3) Sustained Cell Rate-Permanent Virtual Circuit (SCR-PVC)

A monthly rate applies for each PVC based on the SCR and traffic management parameter requested by the customer. SCR cannot exceed the port size.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(4) Sustained Cell Rate – Additional Sustained Cell Rate - Additional provides for the customer to order additional SCR above the 50 Mbps available in this Service Catalog. A monthly recurring charge applies for each 5 Mbps of SCR - Additional ordered based on the traffic management parameter selected. This charge is in addition to the SCR.[23]	
(5) Peak Cell Rate (PCR) Peak Cell Rate is the maximum data rate the customer may send data into the ATM network on a PVC. The PCR on a PVC is defined as the SCR plus the incremental PCR. Incremental PCR is available in 1 Mbps increments and is in addition to the SCR.[24]	
(6) Frame Relay to ATM Service Interworking A monthly recurring charge applies, based on SCR ordered, for a Frame Relay to ATM Service Interworking PVC. Service includes SCR-PVC rates and equivalent Frame Relay CIR-PVC rates and provides for bandwidth transmission through the network. The minimum period for a Frame Relay Service to ATM Service Interworking PVC is one month.[23]	
6. *Optional Payment Plan (OPP)* a. General The terms and conditions specified herein are applicable to ATM Service and are in addition to other regulations as specified in this Service Catalog of the Company.	
The ATM UNI Port with Access Line and ATM UNI Port Only rate elements are available under an OPP. Nonrecurring charges apply for initial OPP orders. Nonrecurring charges will not be applied for changes in OPP lengths of Ports or Port and Access Lines. Digital special access lines and additional features are available at their Service Cataloged rates and regulations.	
Three (3) year and five (5) year OPP rates will be equal to or less than the one (1) year OPP rates. Decreases to the one (1) year OPP rates will flow through to the three (3) year and five (5) year OPP rates. Payment periods of one (1) year, three (3) years, and five (5) years are available to the customer at the applicable rates set forth elsewhere in this Section, regardless of when they subscribe to an OPP arrangement.	
The customer must designate the payment period for the OPP.	
Same CDL (Inside Moves) as specified in Section *IV.* will not incur termination liability charges.	

[23] If the information provided by the customer for the requested PVCs results in an interstate arrangement, as defined in the Facilities for Intrastate Access Service Catalog, Section *VI.*, the PVC falls under the federal jurisdiction and will be rated from the Telephone Companies FCC Tariff No. 8.

[24] Limited to existing customers as of October 1, 2009.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

Different CDL (Outside Moves), as specified in Section *IV.*, will allow the customer to retain the same OPP payment period. Any other move will be treated as a disconnect of the service and termination liability charges will apply.	
b. Changes in Length of OPP Period Prior to the completion of the selected OPP period, the customer may elect to convert to a new OPP period of the same or different length, subject to the following conditions: - No credit toward the new payment period will be given for payments made under the original OPP arrangement.	
- Nonrecurring charges will not be reapplied for existing service(s).	
- If the new OPP period is shorter in length than the time remaining under the existing OPP, the change to the new OPP period constitutes a discontinuance of the existing OPP Service and termination liability charges apply.	
c. Renewal Options At the expiration of an OPP period, the Company will continue the service with existing rates unless the customer chooses to convert to a different OPP period or discontinue service.	
Conversion to a different OPP period will require the customer to submit a change order. Conversion of existing OPP Service to a different OPP period will be allowed without application of any nonrecurring or ordering charges.	
d. Notification of Discontinuance A request for discontinuance of an OPP arrangement must be received by the Company at least thirty (30) days prior to actual disconnect of service. Recurring charges will apply for a period of thirty (30) days from the date the Company receives disconnect notification or until the requested disconnect date, whichever period is longer.	
e. Upgrade to Higher Speed Service The customer may elect to upgrade service(s) to a higher speed during an OPP period, subject to the following conditions: - The order to discontinue a service at an existing speed or capacity and the order for the upgraded service are received by the Company at the same time.	
- The term commitment period for the upgraded service(s) meets or exceeds the remaining length of the existing term commitment plan.	
- The total monthly rate of the new agreement is equal to or greater than the total monthly rate of the existing agreement period.	

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

- The monthly rates for the upgraded service and/or service elements will be those in effect at the time of the service upgrade.

- Termination liability charges will not apply as long as the upgraded service remains connected at the same point of termination(s) and is provided by the Company.

- Nonrecurring charges will not apply to the upgraded Port or Port and Access Line. Special construction charges, if appropriate, may apply.

f. Termination Liability

When an OPP arrangement is discontinued prior to the end of the period, termination liability charges, as set forth below, will apply based on the remainder of the OPP period in effect at the time of disconnect.

Charges will also be applicable if the number of services falls below the minimal amount of ATM services (port only or port and access) defined at the start of the contract. Charges are set forth below with the penalty assessed for each service that falls below the minimum number multiplied by the number of months required to attain the minimum contract commitment.

One-Year OPP- fifty percent (50%) of any remaining portion of the first year's recurring charges for the in-service quantity.

Three-Year OPP - fifty percent (50%) of any remaining portion of the first year's recurring charges. In addition, for any remaining portion of the second and third years, the customer will be liable for ten percent (10%) of the total monthly recurring charges in that time period for the in-service quantity.

Five-Year OPP- fifty percent (50%) of any remaining portion of the first year's recurring charges. In addition, for any remaining portion of the second through fifth years, the customer will be liable for twenty percent (20%) of the total monthly recurring charges in that time period for the in-service quantity.

g. Termination Without Liability

During an OPP period, should the currently effective rate for the customer's service increase, the customer may, at his/her option, terminate the OPP arrangement without penalty or liability.

h. Credit of Termination Liability

Credit of termination liability charges for ATM services may be applicable in the case of re-establishment of similar ATM Service of equal to or higher speeds within six (6) months of termination for the same length of the OPP. The amount of credit will be one-sixth (1/6) of the penalty times the number of month’s service is re-established until the sixth month.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

7. *Rates and Charges*

a. UNI Port and Access Line

	Nonrecurring Charge	Monthly Rate
DS-1		
One Year	$650.00	$650.00
Three Year	650.00	525.00
Five Year	650.00	500.00
DS-3		
One Year	1,500.00	1,950.00
Three Year	1,500.00	1,750.00
Five Year	1,500.00	1,700.00
OC-3c		
One Year	1,500.00	2,100.00
Three Year	1,500.00	1,950.00
Five Year	1,500.00	1,800.00
OC-12c		
One Year	3,000.00	4,800.00
Three Year	3,000.00	4,600.00
Five Year	3,000.00	4,350.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

b. UNI Port Only[25]

	Nonrecurring Charge	Monthly Rate
DS-1		
One Year	$650.00	$180.00
Three Year	650.00	175.00
Five Year	650.00	170.00
DS-3		
One Year	1,500.00	400.00
Three Year	1,500.00	370.00
Five Year	1,500.00	350.00
OC-3c		
One Year	1,500.00	680.00
Three Year	1,500.00	650.00
Five Year	1,500.00	630.00
OC-12c		
One Year	2,000.00	1,500.00
Three Year	2,000.00	1,430.00
Five Year	2,000.00	1,380.00

[25] The associated regulations, rates and charges from the Facilities for Intrastate Access Service Catalog, Section *VI.* are in addition to the rates associated with these ATM rate elements. Local channel, interoffice channel mileage and hub termination rates for DS3, OC3c, and OC12c access channels and/or interoffice channels shall be provided on an Individual Case Basis (ICB).

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

c. Sustained Cell Rate – Permanent Virtual Circuit (SCR-PVC)[26]

	Monthly Rate		
	CBR	VBR-rt	VBR-nrt
0 – 32 Kbps	$12.00	$10.00	$8.00
33 – 64 Kbps	22.50	18.75	15.00
65 – 96 Kbps	33.00	27.50	22.00
97 – 128 Kbps	43.50	36.25	29.00
129 – 192 Kbps	54.00	45.00	36.00
193 – 256 Kbps	63.00	52.50	42.00
257 – 320 Kbps	72.00	60.00	48.00
321 – 384 Kbps	81.00	67.50	54.00
385 – 512 Kbps	90.00	75.00	60.00
513 – 768 Kbps	97.50	81.50	65.00
769 – 1152 Kbps	105.00	87.50	70.00
1.153 – 1.536 Mbps	112.50	93.75	75.00
1.537 – 4 Mbps	180.00	150.00	120.00
4 – 6 Mbps	270.00	225.00	180.00
6 – 8 Mbps	360.00	300.00	240.00
8 – 10 Mbps	450.00	375.00	300.00
10 – 15 Mbps	495.00	412.50	330.00
15 – 20 Mbps	615.00	512.50	410.00
20 – 25 Mbps	735.00	612.50	490.00
25 – 30 Mbps	855.00	712.50	570.00
30 – 35 Mbps	975.00	812.50	650.00
35 – 40 Mbps	1,095.00	912.50	730.00
40 – 45 Mbps	1,200.00	1,000.00	800.00
45 – 50 Mbps	1,305.00	1,087.50	870.00

d. Sustained Cell Rate (SCR) – Additional

	Monthly Rate		
	CBR	VBR-rt	VBR-nrt
5 Mbps	$105.00	$87.50	$70.00

[26] If the information provided by the customer for the requested PVCs results in an interstate arrangement, as defined in the Facilities for Intrastate Access Service Catalog, Section *VI.*, the PVC falls under the federal jurisdiction and will be rated from the Telephone Companies FCC Tariff No. 8.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

e. Peak Cell Rate[27]

	Nonrecurring Charge	Monthly Rate
1 Mbps, each	$0.00	$5.00

f. Frame Relay to ATM Service Interworking

	Nonrecurring Charge	Monthly Rate
0 – 32 Kbps	$0.00	$14.00
33 – 64 Kbps	0.00	26.25
65 – 96 Kbps	0.00	38.50
97 – 128 Kbps	0.00	50.75
129 – 192 Kbps	0.00	63.00
193 – 256 Kbps	0.00	73.50
257 – 320 Kbps	0.00	84.00
321 – 384 Kbps	0.00	94.50
385 – 512 Kbps	0.00	105.00
513 – 768 Kbps	0.00	113.75
769 – 1152 Kbps	0.00	122.50
1.153 – 1.536 Mbps	0.00	131.25
1.537 – 4 Mbps	0.00	210.00
4 – 6 Mbps	0.00	315.00
6 – 8 Mbps	0.00	420.00
8 – 10 Mbps	0.00	525.00
10 – 15 Mbps	0.00	577.50
15 – 20 Mbps	0.00	717.50
20 – 25 Mbps	0.00	857.50
25 – 30 Mbps	0.00	997.50
30 – 35 Mbps	0.00	1,137.50
35 – 40 Mbps	0.00	1,277.50
40 – 45 Mbps	0.00	1,400.00

[27] If the information provided by the customer for the requested PVCs results in an interstate arrangement, as defined in the Facilities for Intrastate Access Service Catalog, the PVC falls under the federal jurisdiction and will be rated from the Telephone Companies FCC Tariff No. 8.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

G. Transparent LAN Service (TLS)[28]

1. *Service Description*

Transparent LAN Service (TLS) is a high speed data service which uses a shared fiber network to allow for the interconnection of Local Area Networks (LANs) across selected metropolitan areas. TLS delivers an interface of 10 Mbps, 100 Mbps, 1000 Mbps or 10 Gbps from the customer's LANs to the shared network.

TLS creates a network with the ability to function as a shared public network. TLS protects data privacy by using specialized screening software that permits subscribers to access only their data.

TSL is available in two (2) service types: Ethernet Multipoint Service (EMS) or Ethernet Relay Service (ERS). The customer must select either (EMS) or (ERS) as the service type for each domain.

a. Ethernet Multipoint Service

Ethernet Multipoint Service (EMS) is a connection-less Ethernet TLS service that allows connectivity among multiple customer designated locations within a LATA.

With the EMS service type, Ethernet TLS protects data privacy by using closed user groups (CUGs), also known as virtual LANs. CUGs or virtual LANs are used to provide traffic separation, privacy and security between customers on the shared switch and backbone. An EMS domain is comprised of any number of access lines designated by the customer to be included in a closed user group (CUG) or virtual LAN. EMS provides multipoint-to-multipoint connectivity among all of the customer's access lines within a given domain. TLS may be used to access shared networks. In such cases, subscribers in a CUG can only access their own data.

b. Ethernet Relay Service

Ethernet Relay Service (ERS) is a connection-oriented Ethernet TLS service that allows for point-to-point connectivity between customer designated locations within a LATA.

With the ERS TLS service type, each Ethernet Virtual Circuit (EVC) establishes a virtual LAN or CUG. An ERS domain is comprised of any number of virtual LANs designated by the customer to be included in the ERS Standard domain. ERS provides point-to-point connectivity between pairs of customer's access lines, Internet virtual circuits and shared network virtual circuits within a given domain.

A customer may have more than one domain within a LATA, but connections between domains are not permitted. TLS may be used to access shared networks. In such cases, subscribers in a CUG can only access their own data.

[28] Offering is limited to existing customers at existing locations as of March 1, 2013.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

Four EVC service classes are available for use with ERS service type:

(1) ERS Standard (ERS-Std) and ERS Basic (ERS-B): designed for customer applications that do not require a Committed Information Rate (CIR) or low delay, where CIR = 0 and Excess Information Rate (EIR) = # of Mbps of the selected ERS-Std/ERS-B EVC service class.

(2) ERS-Priority Data (ERS-PD): designed for customer applications which do not require low delay, but require a CIR, where CIR = # of Mbps of the selected ERS-PD EVC service class and EIR = # of Mbps of the selected ERS-PD EVC service class.

(3) ERS Real Time (ERS-RT): designed for customer applications which require a CIR and low delay for some portion of their traffic, where CIR = # of Mbps of the selected ERS-RT EVC service class and EIR = 0.

(4) An ERS EVC can include up to three service classes (ERS-B, ERS-PD and ERS-RT) as described above within each EVC. The customer will be required to identify the Basic, PD and RT Class of Service Ethernet frames by one of the following choices: setting the VLAN Class of Service (CoS) ID (for 802.1q tagged Ethernet Frames), or setting the DiffServ Code Point (DSCP) (for tagged or untagged Ethernet frames) or setting the VLAN ID (for tagged or untagged Ethernet frames), appropriately.

2. *Definitions*

In addition to the Definitions set forth in section *III.F.* of this Service Catalog, the following definitions apply:

a. Domain

A Virtual Local Area Network (VLAN) or a collection of circuits that belong to one closed user group.

b. Megabit Per Second (Mbps)

The speed with which data is being transferred in the network, where one Mbps equals to the transfer rate of one (1) million bits of data in one (1) second.

c. Gigabits Per Second (Gbps)

Data transfer rate for 1000 Mbps. The speed at which data is transferred through the network, where one Gigabit Per Second equals the transfer rate of one (1) billion bits of data in one (1) second.

d. Nanometer (nm)

Wavelength frequency equivalent to one (1) billionth of a meter.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

3. *Service Provisioning* The TLS service consists of the following: a. Network Interface Device (NID) at the customer's premises to terminate the fiber pair.	
b. Optical Transport from the customer's premises to the serving central office.	
c. Network Management including fault monitoring and diagnostics, performance and network configuration applications and manual monitoring when necessary.	
d. User Network Interface (UNI) Port with Access Line Connection UNI Port with Access Line Connections, which are available at 10 Mbps, 100 Mbps and 1000 Mbps, provide connectivity between the customer premises and the serving wire center. UNI Port with Access Line connections are available as either EMS or ERS. Connectivity can be established only between or among UNI Port with Access Line Connections of the same service type.	
e. Ethernet TLS Ethernet Virtual Circuit (EVC), where applicable. An Ethernet TLS EVC provides point-to-point Ethernet connectivity between two UNIs, between a UNI and a shared network EVC or between a UNI and an Internet VC. Ethernet TLS EVCs are only available with ERS. The ERS Ethernet TLS EVCs are designed for customer applications that do not require bandwidth or delay guarantees. ERS Standard provides no performance guarantees.	
f. Interoffice Milage, where applicable.	
g. Optional Features - Customer Service Management (CSM)	
4. *Conditions* A TLS network will be limited to central offices in a specific geographic location. Customers gain access to the shared TLS network via a switch, node or other Telephone Company equipment delivering service through a shared fiber path or network infra-structure deployed in the customer's serving central office (TLS equipped central office), or deployed in leased space near the customer's location or deployed at the Customer's location. At subscription, the customer has an option of selecting access lines at speeds of 10 Mbps, 100 Mbps, 1000 Mbps or 10 Gbps. The 10 Gbps UNI speed is only available through the Ethernet Relay Service (ERS) Premier access line service type.	
TLS is available to customers whose serving central office is a TLS equipped central office and is located within the maximum allowable range of the serving central office. The maximum allowable fiber range is determined by the dB loss rate where the actual distance between the TLS equipped serving wire center and the customer's location will vary based on the specifics of the transport facility used in each serving arrangement.	

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

If the customer's serving central office is not a TLS equipped central office, the customer may obtain service by paying the Interoffice Mileage charge in addition to TLS access charges. The dB loss cannot exceed the maximum allowable range, as specified in regulation above. a. Availability of Service TLS is available where facilities and conditions permit. Special construction charges may apply. TLS will be provided seven (7) days a week, twenty-four (24) hours a day, from central offices equipped to provide this service.	
b. Connections The network interface is the LAN interface on the NID device at the customer's premises. The customer is responsible for any inside wire required in connecting the LAN to the TLS equipment.	
The customer is also responsible for installation, operation and maintenance of any customer-provided equipment.	
The Company has the service responsibility up to and including the network interface.	
c. Limitations The customer's location must be within the Maximum Allowable Range of the TLS equipped central office, as noted under Conditions in this Section.	
d. Maintenance Window To meet the customers' requirements, occasional network upgrades must be performed. Network upgrades are needed to provide improved performance and new features. Generally network upgrades will be performed between the hours of 11:00 PM and 6:00 AM. Network upgrades are planned to provide customers reasonable and timely notification in order to minimize any impact on the customers' service.	
e. Technical Standards The technical standards for TLS are delineated by the Institute of Electrical and Electronic Engineers standards for Ethernet connectivity.	
f. Transmission Mode The transmission mode supported is dependent on the access rate. The supported transmission mode for 10 Mbps access is half-duplex and full duplex. Full duplex 10 Mbps access is available only where conditions and facilities permit. The supported transmission mode for 100 Mbps, 1000 Mbps or 10 Gbps access is full duplex.	

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

5. *Rate Regulations*

The following rate elements are applicable to TLS:

a. Uni Port and Access Line

(1) Standard Access Line

A monthly rate applies on a per line basis, based on the speed of the access connection (i.e., 10 Mbps, 100 Mbps or 1000 Mbps). The Standard Access Line is offered on a month-to-month basis for a minimum of nine (9) months, or as a three (3) year or five (5) year term commitment period. A nonrecurring charge applies to the installation of a Standard Access Line provided on a month-to-month basis.

(2) Protected Access Line (available for EMS Service type only)

Protected Access Lines are provisioned as a survivable service with an alternate fiber pair between the central office and the customer premises. Protected Access Line allows the Company to detect and recover a failure and move the customer's data to an alternate fiber pair in approximately one (1) second in most instances. Both fiber pairs must be served by the same central office and must have the same access speed. The second fiber pair will be routed over a diverse fiber path when possible. A monthly rate applies on a per line basis, based on the speed of the access connection (i.e., 100 Mbps, 1000 Mbps). A nonrecurring charge will apply to the installation of a Protected Access Line provided on a month-to-month basis.

(3) Premier Access Line

A monthly rate applies on a per-line basis, based on the speed of the access line (i.e., 10 Mbps, 100 Mbps, 1000 Mbps, or 10 Gbps). A Premier Access Line must be purchased in conjunction with some combination of ERS-B, ERS-PD, and/or ERS-RT EVC service classes, which are described previously. The Premier Access Line is offered on a month-to-month basis or as a three (3) Year or five (5) Year Term Plan. A nonrecurring charge applies to the installation of the UNI provided on a month-to-month basis. A customer cannot mix Premier UNI Ports with any other UNI port type.

The percentage of each Premier Access Line UNIs allowed for EVC bandwidth is limited where connections must comply with each of the following threshold requirements:

ERS-B less than or = 500% of UNI Speed
ERS-PD less than or = 85% of UNI Speed
ERS-RT less than or = 50% of UNI Speed
ERS-PD + ERS-RT less than or = 85% of UNI Speed
ERS-B + ERS-PD + ERS-RT less than or = 500% of UNI Speed

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(4) EMS Real Time (EMS-RT) Access Line A monthly rate applies on a per-line basis, based on the speed of the access connection (i.e., 100 Mbps or 1000 Mbps). This enhanced service class configures a fixed portion of the UNI to be configured for Real Time Traffic, where each 100 Mbps UNI has CIR = 5 Mbps with EIR = 0 with each 1000 Mbps UNI has CIR = 20 Mbps with EIR = 0. The remainder of the UNI can be used for CIR = 0 and EIR = 0 traffic. The EMS-RT Access Line is offered on a month-to-month basis or as a three (3) Year or five (5) Year Term Plan. A nonrecurring charge applies to the installation of the EMS-RT Access Line provided on a month-to-month basis. A customer cannot mix an EMS-RT Access Line with the ERS Service type, but may mix EMS-RT Access Line with EMS Access Lines.	
(5) Ethernet Virtual Circuit (EVC) For customers who order the Standard Access Line, a monthly rate will apply on a per EVC bandwidth basis. ERS Standard is the only EVC class available with the Standard Access Line. The EVC bandwidth must be equal to the bandwidth of the lowest speed of the end points it is connecting. ERS Standard EVCs are purchased on a month-to-month basis. A non-recurring setup charge will apply per ERS Standard EVC.	
For customers who order the Premier Access Line, a monthly rate will apply on a service class and EVC bandwidth basis. Premier Access Line customers have the choice of combining ERS-Basic, ERS-Priority Data, and/or ERS-Real Time bandwidth on an EVC. A non-recurring setup charge will apply per ERS EVC. EVCs are purchased on a month-to-month basis. A customer may have more than one service class on the EVC, but will only pay one EVC non-recurring setup charge.	
For customers who order the Standard Access Line, a monthly rate will apply on a per EVC bandwidth basis. ERS Standard is the only EVC class available with the Standard Access Line. The EVC bandwidth must be equal to the bandwidth of the lowest speed of the end points it is connecting. ERS Standard EVCs are purchased on a month-to-month basis. A non-recurring setup charge will apply per ERS Standard EVC.	
For customers who order the Premier Access Line, a monthly rate will apply on a service class and EVC bandwidth basis. Premier Access Line customers have the choice of combining ERS-Basic, ERS-Priority Data, and/or ERS-Real Time bandwidth on an EVC. A non-recurring setup charge will apply per ERS EVC. EVCs are purchased on a month-to-month basis. A customer may have more than one service class on the EVC, but will only pay one EVC non-recurring setup charge.	
The number of EVCs permitted on each Standard Access Line and/or Premier Access Line are limited as follows: 10 Mbps less than or = 2 EVCs 100 Mbps less than or = 10 EVCs 1000 Mbps less than or = 75 EVCs 10 Gbps less than or = 250 EVCs	

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

ERS-Basic, ERS Priority Data and ERS-Real Time EVC bandwidth is limited to a maximum Mbps per Service Class per EVC, and must comply with each of the following maximum limits:

EVC Service Class	100 Mbps UNI Max/EVC	1000 bps UNI Max/EVC	10 Gbps UNI Max/EVC
ERS-B	100 Mbps	1000 Mbps	1000 Mbps
ERS-PD	50 Mbps	500 Mbps	500 Mbps
ERS-RT	50 Mbps	100 Mbps	100 Mbps

(6) Interoffice Mileage

The Interoffice Mileage charge is based on the Per Mile charge multiplied by the distance between the customer's serving central office and the nearest TLS equipped central office (a central office equipped with a switch, node, or other Telephone company equipment capable of delivering service, via a shared fiber path or network infra-structure). This interoffice distance is measured in airline miles, based upon latitude and longitude of each central office. The mileage measurement is calculated as specified by NECA FCC Tariff No. 4. This charge applies in addition to the applicable rates and charges for the TLS Access Line.

(7) Domain/LAN Extension Equipment Changes

Customer requests for changes in EMS Domains and replacement of LAN extension equipment will be charged a nonrecurring charge per location per change.

Optional Features / Customer Service Management (CSM):

Customer Service Management (CSM) is an optional feature that provides customers with web-based reports. These reports give the customer the ability to extract "read-only" network traffic information regarding their networks thereby allowing customers to monitor and manage their network performance. The customer also has the ability to open trouble tickets and read updates on the trouble tickets. CSM is provided per customer Domain/VLAN.

CSM will be provided where conditions and facilities permit.

The Company reserves the right to temporarily interrupt CSM for maintenance, software upgrades, and in emergency situations.

A monthly rate and a nonrecurring charge apply for each CSM arrangement. The customer will be charged on a per Domain/VLAN basis. The nonrecurring charge applies in addition to all other applicable service charges.

b. Minimum Period

The minimum period for TLS under the month-to-month plan is nine (9) months.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

c. Term Commitment Period

The TLS Access Line is offered under a three (3) or five (5) year term commitment period. The regulations applicable to TLS provided under a term commitment period are specified in Termination Liability in this section.

d. Adds, Moves, Changes and Upgrade

The customer may add additional sites, which will carry their own term period. Nonrecurring charges as noted under Rates and Charges in this section are applicable to additional sites subscribed to under the month-to-month term commitment period.

A move normally involves an interruption of service for the period required to complete the move. No credit allowance will be granted for that period.

When the customer requests a move or relocation of a Standard Access Line, Protected Access Line, Premier Access Line or EMS Real Time Access Line to a different address and/or different building, the move or relocation will be treated as a termination of the existing service and the establishment of new service for the application of all charges, including special construction or other non-standard charges.

When the customer requests an upgrade in service speed, or change in service type, at an existing address, the upgrade in service speed/change in service type will be treated as a termination of the existing service and the establishment of a new service for the application of all charges, including the calculation termination liability as described on Sheet 6.1 will apply.

The customer may request a move or relocation of the TLS Access Line at the same address and/or same building.

There will be no change in the term commitment period for moves and changes in service.

Nonrecurring charges are not applicable to moves or changes in service, except those involving an equipment change, which are subject to the TLS Domain/LAN Extension Equipment Change charge.

Nonrecurring service ordering charges are not applicable to adds, moves or changes.

e. Termination Liability

In the event the service is terminated by the Customer prior to completion of the current term commitment period, the customer shall be liable for an early termination charge, except as noted below. The amount of the early termination charge will be twenty-five percent (25%) of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:

25% X MRC X # of Lines/Channels/Paths X Remainder of Term = Termination Charge

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

Early termination charges will apply only to those rate elements under a term commitment period. If any rates for the service are increased during the term period, exclusive of any increase due to local, state or federal fees, taxes or surcharges, the customer may terminate the service without incurring an early termination charge.

A change in TLS service type will be considered a "change to another service" for purposes of determining Termination Liability charges.

Early termination charges will not be assessed under the following circumstances:

(1) Customer moves existing service either to a new location within the same address and/or same building (inside move) or to a new location (outside move) and maintains that service for the remainder of the term;

(2) Customer attempts to move the existing service to a new location within the Company's service area, but the service is unavailable;

(3) Customer renegotiates a new term commitment plan for the same service before the current term commitment expires and the value of the new term commitment is equal to or greater than the remaining value of the current term commitment; or

(4) Customer changes to another service class or upgrades service to a higher speed or capacity under a term commitment, provided the following conditions are met:

(a) The value of the new term commitment is equal to or greater than the remaining value of the current term commitment,

(b) The Company provides the new service via Service Catalog or on an individual case basis (ICB), and

(c) The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.

f. End of Term Options

Prior to the end of the term commitment period, the customer may select one of the following options, to be effective at the end of the term:

- Renew their term commitment,
- Commit to a new term period,
- Arrange for a change of service, or
- Arrange for termination of the service.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

In the event the customer does not select one of the above options, the customer will be converted to the shortest-term period available under Service Catalog (i.e., month-to-month, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the customer terminates the service within sixty (60) days of the conversion date.

g. Service Level Agreements (SLA)

Service Level Agreements (SLA) provide TLS Customers with Service Response Credits (SRC) applied to their telephone bill if the Company fails to meet certain operational and network thresholds. SLAs are available at no additional charge or fee to the Customer.

A Customer is eligible for the SLA SRC given the Customer adheres to the conditions stated within this section. The SLA specifies performance criteria against which actual performance for TLS will be compared on a monthly basis.

The TLS SLA includes the following measurements:

- Operational SLAs
  - Mean Time to Repair (MTTR)
  - Network Availability
- Network Performance SLAs

  Ethernet Virtual Circuit (EVC) Class of Service (CoS) Performance
  - Data Delivery Ratio (DDR)
  - Round Trip Delay (RTD)
  - Jitter

The SLA SRC will apply to the following TLS elements:

- UNI Port with Access Line Connection
- Ethernet Virtual Circuit (EVC) Bandwidth

To receive SRCs on eligible rate elements, the Customer must have the eligible rate elements listed in its initial subscription based on the established customer of record, or have ordered the eligible rate elements subsequent to its initial subscription. The Company reserves the right to change, alter or discontinue the optional SRC plan at its discretion.

All service performance and provisioning measurements are conducted using the Company monitoring systems and procedures. The Company may change these systems and procedures at its sole discretion. In performing measurements of overall Mean Time To Repair (MTTR) and Network Availability, the Company shall include data measured throughout the territories covered by this Service Catalog.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

To receive credit, the Company must receive from the Customer a written request for credit within thirty (30) calendar days of the end of the monitoring period that the SRC is referencing. The Customer's request for credit must be submitted to the appropriate Company entity (office or interface) in a manner prescribed by the Company. The request must include a list of all impacted circuit/connection identification numbers and the type of SRC requested for each circuit/connection. The SRC monitoring period is based on a calendar month.

(1) Operational Service Level Agreements (SLAs)

(a) Mean Time to Repair (MTTR)

MTTR is the average mean time for the Company to repair Customer reported interruptions for service that is within the Company's network. A TLS service is interrupted when it becomes unusable to the Customer because of a failure of a facility component within the Company's network that is used to furnish service under this Service Catalog.

(i) MTTR Measurements

Under the MTTR SLA, the Company will measure the average Time to Repair (TTR) for Customer-reported interruptions in the services with respect to TLS Access Lines. To be measured under this SLA, the Customer must report any interruption to a Company-designated entity for the opening of a trouble ticket. The TTR is measured from the date and time a trouble ticket is opened by the Company and the date and time when such ticket is closed by the Company. In measuring the TTR, any stop clock time or adjusted duration time associated with the trouble shall be subtracted from such measurement. For purposes of this measurement, stop clock time refers to:

- periods when Customer testing is occurring;
- periods when the Company is awaiting the Customer's authorization to commence work on a TLS Access Line;
- periods when the Company is denied access to the Customer's premises or facilities as necessary to diagnose, repair or test
- periods following a repair of a TLS Access line when the ticket is held open by the Customer to ensure the trouble is resolved and
- any time period during which any of the listed occurrences existed, as set forth in SLA Exclusions following.

The SLA shall not apply to cases of trouble where no trouble was found or repeated cases of trouble for the same interruption. The MTTR SLA shall be measured on a calendar month basis and shall be calculated by adding the TTR for all interruptions and dividing that sum by the total number of trouble tickets opened for interruptions for the Customer during that month.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(ii) MTTR SRCs

If the MTTR is greater than four (4) hours over the calendar month, then fifty percent (50%) of the one (1) month TLS Access Line monthly charge shall be given as a MTTR SRC for those Access Lines which have been out of service for longer than four (4) hours and have been reported by the Customer via a trouble ticket to the Company. The MTTR SRC credit excludes and is not applicable to scheduled maintenance, scheduled downtimes or delays resulting from an event of force majeure.

(b) Network Availability

Network Availability refers to the percentage of time during a calendar month that the TLS is available for use by the Customer.

(i) Network Availability Measurement

The Company threshold for Network Availability is 99.90%. Network Availability is calculated on a per TLS Port Connection basis as follows:

((24 X Number of Days in Month X Number of TLS Port Connections) – (Number of Hours Out of Service during Month))/(24 X Number of Days in Month X Number of TLS Port Connections).

The Company will not round up the calculation to reach the 99.90% threshold. This SLA is only available for outages reported by the Customer via a trouble ticket to the Company.

(ii) Network Availability SRCs

If the overall Network Availability measurement is less than the threshold of 99.90% for a calendar month, the Company will provide a credit equal to ten percent (10%) of the associated monthly charge for any individual TLS port connection that did not meet such threshold during such calendar month.

(2) Network Performance SLAs

Network Performance SLA applies to all Customers subscribing to an EVC Class of Service (CoS) within a local network consisting of the following types:

- Real Time EVC bandwidth CoS, and
- Priority Data EVC bandwidth CoS.
- All other EVCs do not qualify for Network Performance SLAs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

The performance SLA is hierarchical in nature and statistically-based. Conformance is determined on a Met or Missed basis, first on a per-hour basis and then on a per-month conformance basis.

- Per-Hour Conformance

  For each hour in the month, a determination is made as to whether the performance objectives are 'Met' for the CoS attributes related to the CoS instance on a given EVC. For a given Hour (e.g., H1), the overall performance objective is 'Met' if the performance objectives for each of the Data Delivery Ratio (DDR), Round Trip Delay (RTD), and Jitter, attributes are 'Met'. If any of the attribute objectives are 'Missed', then the overall performance objective for Hour (H1) is determined to be 'Missed'.

- Per-Month Conformance

  For the month, a determination is made as to the percentage of hours that the overall performance objective is 'Met'. So, for a given Month (e.g., M1), the monthly performance guarantee is 'Met' if the % of hours 'Met' for the month meet or exceed the monthly objective.

EVC Class of Service Network Performance SLA shall be based on the following Ethernet frame traffic criteria:

(a) Data Delivery Ratio (DDR)

DDR is defined as the ratio of service frames successfully received from the network relative to the number of service frames offered to the network. The DDR definition is restricted to service frames that are compliant to the subscribed Committed Information Rate (CIR) profile. Interruptions caused by MTTR activity shall be excluded from the measurement of DDR.

(i) Real Time EVC Bandwidth – Data Delivery Ratio

The Company threshold for Data Delivery Ratio is 99.5% in a calendar month.

(ii) Real Time EVA Bandwidth – Data Delivery SRCs

If the overall Data Delivery measurement does not meet the per month conformance then the Company shall provide an SRC equal to ten percent (10%) of the monthly charge for any individual EVC that did not meet such threshold during such calendar month.

(iii) Priority Data EVC Bandwidth – Data Delivery Ratio

The Company threshold for Data Delivery Ratio is 99% in a calendar month.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(iv) Priority Data EVC Bandwidth – Data Delivery SRCs

If the overall Data Delivery measurement does not meet the per month conformance then the Company shall provide an SRC equal to ten percent (10%) of the monthly charge for any individual EVC that did not meet such threshold during such calendar month.

(b) Round Trip Delay (RTD)

RTD is defined as the time (in milliseconds) it takes for a service frame to be sent from one UNI to another UNI and back again (includes link insertion delays, propagation delays and queuing delays in the network). The RTD calculation includes only the time the packet is in the network, i.e., the processing time spent in devices attached to the UNI are factored out of the definition. The RTD definition is restricted to service frames that are compliant to the subscribed CIR profile.

(i) Real Time EVC Bandwidth – Delay Measurement

The Company threshold for Delay is twenty (20) milliseconds.

(ii) Real Time EVC Bandwidth – Delay SRCs

If the overall delay measurement does not meet the per month conformance then the Company shall provide an SRC equal to ten percent (10%) of the monthly charge for any individual EVC that did not meet such threshold during such calendar month.

(iii) Priority Data EVC Bandwidth – Delay Measurement

The Company threshold for Delay is fifty (50) milliseconds.

(iv) Priority Data EVC Bandwidth – Delay SRCs

If the overall delay measurement does not meet the per month conformance then the Company shall provide an SRC equal to ten percent (10%) of the monthly charge for any individual EVC that did not meet such threshold during such calendar month.

(c) Jitter

Jitter is defined as the variance in frame delay (in milliseconds) between two service frames as measured at the ingress and egress UNIs. The jitter definition is restricted service frames that are compliant to the subscribed CIR profile.

(i) Real Time EVC Bandwidth – Jitter Measurement

The Company threshold for Delay is five (5) milliseconds.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(ii) Real Time EVC Bandwidth – Jitter SRCs

If the overall jitter measurement does not meet the per month conformance then the Company shall provide an SRC equal to ten percent (10%) of the monthly charge for any individual EVC that did not meet such threshold during such calendar month.

(3) Validation for Operational and Network Performance SLAs

(a) Customer Validation

(i) Operation SLAs

The Customer must submit in writing a list of all impacted circuit/connection identification numbers and the type of SRC requested for each circuit/connection. The written request for credit must be submitted to the appropriate Company entity in the manner prescribed by the Company in this Service Catalog.

(ii) Network Performance SLAs

The Customer must request SRCs for Network Performance SLAs and may submit in support of such request its own measurements made by industry-standard network performance measuring equipment. Such equipment shall be subject to prior approval by the Company and be capable of the following:

- For the DDR SLA, the equipment must be capable of determining the number of actual packets sent and successfully received between two (2) Customer locations.

- For the RTD SLA, the equipment must be capable of measuring the transmission of a series of 128-byte time-stamped packets to a measurement system from one Customer location to another Customer location. The measurement systems must be time-synchronized by using a network based timing source that uses Greenwich Mean Time (GMT).

- For the Jitter SLA, the equipment must be capable of measuring the transmission of a series of at least fifty (50), 128-byte time stamped packets at a fixed interval between each packet from one Customer location to a measurement system at another Customer location. The measurement systems must be time-synchronized by using a network based timing source that uses Greenwich Mean Time (GMT).

- All equipment must be capable of measuring from edge to edge (Customer Premises Equipment (CPE) to CPE) and to make the measurement every five (5) minutes per hour for four (4) hours total per day, for a total of two hundred forty (240) measures per day. In order to be considered, such measurements must include at least seven consecutive days' worth of measurements for four (4) hours per day.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(b) Company Validation

The Company will research and validate the Customer-submitted SRC in accordance with its own procedures and systems. The Company may, at its discretion, use either the Customer-provided data or its own measurement data (or above mentioned formulas) to evaluate and assess whether SRCs are warranted.

6. *Rates and Charges*

a. Standard Access Line, Per Line

	Nonrecurring Charge[29]	Monthly Rate
Month-to-Month (minimum 9 months)		
10 Mbps		
Half duplex or full duplex	$1,300.00	$1,200.00
100 Mbps	1,300.00	2,400.00
1000 Mbps	1,300.00	4,000.00
Three Year		
10 Mbps		
Half duplex or full duplex	---	1,000.00
100 Mbps	---	2,000.00
1000 Mbps	---	3,500.00
Five Year		
10 Mbps		
Half duplex or full duplex	---	900.00
100 Mbps	---	1,800.00
1000 Mbps	---	3,200.00

[29] Applies in lieu of services charges found elsewhere in this Service Catalog or other Company Service Catalogs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

b. Protected Access Line, per line

	Nonrecurring Charge[30]	Monthly Rate
Month-to-Month		
100 Mbps	$1,300.00	$3,600.00
1000 Mbps	1,300.00	6,000.00
Three Year		
100 Mbps	---	3,000.00
1000 Mbps	---	5,200.00
Five Year		
100 Mbps	---	2,700.00
1000 Mbps	---	4,800.00

c. Premier Access Line, Per Line

	Nonrecurring Charge[30]	Monthly Rate
Month-to-Month (minimum 9 months)		
10 Mbps	$1,300.00	$1,075.00
100 Mbps	1,300.00	1,200.00
1000 Mbps	1,300.00	2,400.00
10 Gbps	1,300.00	10,500.00
Three Year		
10 Mbps	N/A	875.00
100 Mbps	N/A	1,000.00
1000 Mbps	N/A	2,000.00
10 Gbps	1,300.00	9,000.00
Five Year		
10 Mbps	N/A	775.00
100 Mbps	N/A	900.00
1000 Mbps	N/A	1,800.00
10 Gbps	1,300.00	8,000.00

[30] Applies in lieu of services charges found elsewhere in this Service Catalog or other Company Service Catalogs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

d. EMS – Real Time Access Line, Per Line

	Nonrecurring Charge[31]	Monthly Rate
Month-to-Month		
100 Mbps	$1,300.00	$2,500.00
1000 Mbps	1,300.00	4,500.00
Three Year		
100 Mbps	---	2,100.00
1000 Mbps	---	4,000.00
Five Year		
100 Mbps	---	1,900.00
1000 Mbps	---	3,700.00

e. ERS Ethernet Virtual Circuit (EVC)

(1) ERS EVC Setup

	Nonrecurring Charge[31]	Monthly Rate
ERS EVC Setup, per EVC	$200.00	N/A

(2) ERS EVA Standard (ERS-Std)

	Nonrecurring Charge[31]	Monthly Rate
ERS EVC Standard (ERS-Std), per EVA		
10 Mbps	N/A	$50.00
100 Mbps	N/A	100.00
1000 Mbps	N/A	200.00

[31] Applies in lieu of services charges found elsewhere in this Service Catalog or other Company Service Catalogs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(3) ERS EVC Basic (ERS-B) Bandwidth

	Nonrecurring Charge	Monthly Rate
ERS EVC Basic (ERS-B) Bandwidth, per EVA		
1 Mbps	N/A	$15.00
2 Mbps	N/A	30.00
3 Mbps	N/A	45.00
4 Mbps	N/A	60.00
5 Mbps	N/A	75.00
6 Mbps	N/A	90.00
7 Mbps	N/A	105.00
8 Mbps	N/A	120.00
9 Mbps	N/A	135.00
10 Mbps	N/A	150.00
20 Mbps	N/A	300.00
30 Mbps	N/A	450.00
40 Mbps	N/A	600.00
50 Mbps	N/A	750.00
60 Mbps	N/A	850.00
70 Mbps	N/A	950.00
80 Mbps	N/A	1,050.00
90 Mbps	N/A	1,150.00
100 Mbps	N/A	1,250.00
200 Mbps	N/A	1,350.00
300 Mbps	N/A	1,450.00
400 Mbps	N/A	1,550.00
500 Mbps	N/A	1,650.00
600 Mbps	N/A	1,740.00
700 Mbps	N/A	1,830.00
800 Mbps	N/A	1,920.00
900 Mbps	N/A	2,010.00
1,000 Mbps	N/A	2,100.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(4) ERS EVC Priority Data (ERS-PD) Bandwidth

	Nonrecurring Charge	Monthly Rate
ERS EVC Priority Data (ERS-PD) Bandwidth, per EVA		
1 Mbps	N/A	$40.00
2 Mbps	N/A	80.00
3 Mbps	N/A	120.00
4 Mbps	N/A	160.00
5 Mbps	N/A	200.00
6 Mbps	N/A	220.00
7 Mbps	N/A	240.00
8 Mbps	N/A	260.00
9 Mbps	N/A	280.00
10 Mbps	N/A	300.00
20 Mbps	N/A	600.00
30 Mbps	N/A	900.00
40 Mbps	N/A	1,200.00
50 Mbps	N/A	1,500.00
60 Mbps	N/A	1,720.00
70 Mbps	N/A	1,940.00
80 Mbps	N/A	2,100.00
90 Mbps	N/A	2,300.00
100 Mbps	N/A	2,500.00
200 Mbps	N/A	2,700.00
300 Mbps	N/A	2,900.00
400 Mbps	N/A	3,100.00
500 Mbps	N/A	3,300.00

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

(5) ERS EVC Real Time (ERS-RT) Bandwidth

	Nonrecurring Charge	Monthly Rate
ERS EVC Real Time (ERS-RT) Bandwidth, per EVA		
1 Mbps	N/A	$120.00
2 Mbps	N/A	240.00
3 Mbps	N/A	360.00
4 Mbps	N/A	480.00
5 Mbps	N/A	600.00
6 Mbps	N/A	660.00
7 Mbps	N/A	720.00
8 Mbps	N/A	780.00
9 Mbps	N/A	840.00
10 Mbps	N/A	900.00
20 Mbps	N/A	1,175.00
30 Mbps	N/A	1,450.00
40 Mbps	N/A	1,725.00
50 Mbps	N/A	2,000.00
60 Mbps	N/A	2,200.00
70 Mbps	N/A	2,400.00
80 Mbps	N/A	2,600.00
90 Mbps	N/A	2,800.00
100 Mbps	N/A	3,000.00

f. Interoffice Mileage, Per Line[32]

	Nonrecurring Charge[33]	Monthly Rate
Per Mile	---	$100.00
Per Optical Protected Mile, 1000 Mbps Only	---	75.00

g. TLS Domain/LAN Extension Equipment Changes

	Nonrecurring Charge[33]	Monthly Rate
Per Change	$400.00	---

[32] Applies in addition to the applicable rates and charges for TLS Dedicated Access Line for service provided in a non-native serving central office.

[33] Applies in lieu of services charges found elsewhere in this Service Catalog or other Company Service Catalogs.

IX. SERVICES LIMITED TO EXISTING CUSTOMERS (Continued)

h. Optional Features

	Nonrecurring Charge[34]	Monthly Rate
Customer Service Management (CSM), Per Domain/VLAN	$350.00	$150.00

[34] Applies in lieu of services charges found elsewhere in this Service Catalog or other Company Service Catalogs.