1. Advanced Data Services
1.1 Application of Rates

1.1.1	Availability of Service
A.	Any telecommunications services provided under this Tariff 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) of the Telecommunications Act of 1996.

1.1.2	Definitions of Terms and Abbreviations
A.	**ACCESS LINE**— A local channel for voice, data, or video communications which connects the Customer's location to a location of the Telephone Company or its underlying carrier or service provider.
B.	**ADDITIONAL LOGICAL CHANNELS**— Additional communications channels on a given Network Address allowing the Customer to establish permanent virtual circuits between multiple locations and maintain a high degree of flexibility in configuring the network.
C.	**BURSTING** – Bursting is the ability to temporarily exceed CIR--the average rate you can send data through the Frame Relay network. The Verizon Frame Relay Service allows you to send two times CIR into the Frame Relay network in one second. For example, if your UNI's access circuit is 10 Mbps and your PVC's Committed Information Rate (CIR) is 5 Mbps, then you could send 10 Mbps into the network over that PVC in one second, with additional data being discarded.
D.	**COMMITTED INFORMATION RATE (CIR)** – A feature that provides Customers with a mechanism for prioritizing data on a per Permanent Virtual Circuit (PVC) basis across a given User Network Interface (UNI). A CIR allows a sustained throughput at a chosen rate without having any frames designated "discard eligible" under normal operating conditions.
E.	**DEDICATED ACCESS**— A dedicated communications channel that terminates on a switch facility provided by the Telephone Company or the Telephone Company's underlying carrier or service provider
F.	**DS1 PORT CONNECTION** - An interface on the Frame Relay network which terminates a Customer's 1.536 megabits per second (Mbps) circuit.
G.	**DS3 PORT CONNECTION** - An interface on the Frame Relay network which terminates a Customer's 44.736 megabits per second (Mbps) circuit.
H.	**GROOMING**— Allows the connection of up to 24 DS0 channels, or one or more Fractional DS1 channels to a single DS1 channel. Grooming also allows the connection of up to 28 DS1 channels to a single DS3 channel.
I.	**HUB**— Telephone Company designated serving wire center which is equipped to provide private line service.
J.	**LOGICAL CHANNEL**— A communications channel that allows transmission of sequenced data packets through one network. One logical channel comes standard with one 56 Kbps, 384 Kbps, and 1.536 Mbps Frame Relay UNI Port With Access Line.
K.	**NETWORK MAP**— The complete configuration of the Customer's frame relay subscriber network access lines and permanent virtual circuits, as defined by the interconnectivity of network addresses and logical channels.

(N)

(N)

1. Advanced Data Services
1.1 Terminology

1.1.2	Definitions of Terms and Abbreviations	
L.	**NETWORK ADDRESS—** The numeric characters representing the origination or destination point (i.e., the UNI Port With Access Line) for each dedicated circuit accessing the Frame Relay network. The Network Address is numbered in number format. One Network Address comes standard with one UNI Port With Access Line	(N)
M.	**NETWORK TO NETWORK INTERFACE (NNI)-** The NNI port configuration is used for connecting two networks together for bi-directional messaging.	
N.	**PERMANENT VIRTUAL CIRCUITS (PVC)—** Are the electronic equivalent of a private line between two points.	
O.	**PORT CONNECTION –** The point of entry into a public Frame Relay Network service.	
P.	**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.	(N)

1. Advanced Data Services
1.2 Frame Relay

1.2.1	General
A.	Frame Relay Service (FRS) is a virtual private data network service which allows Customers to simulate a dedicated high-speed data network. FRS allows Customer to establish Permanent Virtual Circuits (PVCs) among multiple locations using statistically multiplexed network access lines and a shared high-speed Company packet switching network. PVCs provide Customer with the electronic equivalent of a private line between two points. Customer establishes with Company a fixed private numbering plan (i.e., Network Address) and routing scheme (i.e., Network Map), for moving data among Customer's various locations on a secure basis. While none of the physical circuits are dedicated, these locations are electronically connected to function similar to private line service.
B.	FRS allows Customers to interconnect geographically dispersed Local Area Networks (LANs) and can support file transfer applications. FRS supports intermittent, bursty data traffic via 56 Kbps, 1.536 Mbps, and 44.736 Mbps transport facilities. Customer may purchase some quantity of dedicated access lines to the packet switching network which serves as the FRS backbone network. FRS port access is provided via either 56 Kbps, 1.536 Mbps or 44.736 Mbps from Customer's location to the nearest FRS service point.
C.	FRS is available where facilities and conditions permit.

1.2.2	Service Components
A.	**User to Network Interface (UNI) Port With Access Lines Connection**— UNI Port With Access Line Connections provide Customer with dedicated access and FRS port at a transmission speed of 56 Kbps, 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps and 44.736 Mbps over dedicated digital facilities. Each UNI Port With Access Line Connection line allows for unlimited usage on the FRS packet network. Each 56 Kbps, 384 Kbps, and 1.536 Mbps UNI Port With Access Line Connection includes one logical channel and one network address. Additional logical channels are offered as an optional feature. The PVC must be associated with at least one FRS port. A FRS port can be associated with multiple PVCs. Subject to technical constraints, the Company may limit the number of PVCs to be assigned.
1.	Effective July 7, 2003, this service component is no longer available to new customers at the Vintage 1 rates.
B.	**Port Only Connections** – UNIs and NNIs are also provisioned as a Port Only Connection. UNI Port Only Connection provides a Frame Relay Network connection based on the port connection speeds of 56 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, 768 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps and 44.736 Mbps. NNI Port Only Connection provides a Frame Relay Network connection based on the port connection speeds of 384 Kbps, 1.536 Mbps and 44.736 Mbps. The Frame Relay port speed will be consistent with the channel speed of the access channel. Each port can accommodate multiple PVCs. UNI Port Only and NNI Port Only Connections are available on a month-to-month, one-year, three-year and five-year term. Customers may access Port Only Connections via Telephone Company-provided digital access facilities. The associated regulations, rates and charges under the appropriate Telephone Company Tariff shall apply in addition to the regulations, rates and charges associated with FRS. (N)

1. Advanced Data Services
1.2 Frame Relay

1.2.2	Service Components	
C.	**Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)**— provides a mechanism to prioritize applications on a per-PVC basis over a Frame Relay UNI. This feature allows all users to maintain the capability to transfer data within their CIR on a non-sequential, high-priority basis without potential packet data discard due to network congestion.	
1.	The following types of PVC CIR are available:	
a.	Standard - A Standard PVC is a logical channel path between two (intrastate) customer Frame Relay ports or an intrastate Frame Relay port and an intrastate ATM port.	
b.	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 or between a Frame Relay port and an ATM port, one being an interstate port and the other an intrastate port. A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from the Verizon Telephone Companies FCC Tariff No. 20 are applicable, where available.	
2.	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 75% of the lower of the two port speeds. For port speeds above 1.536 Mbps to 44.7136 Mbps, the maximum CIR allowed is 50% of the lower of the two port speeds.	
3.	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 Standard and Multi-jurisdictional PVC CIR at no additional charge.	
4.	Premier PVC Service – Premier PVC Service enables a customer to differentiate PVCs and assign a higher priority of service to specific PVCs. This service is available where facilities permit. Premier PVC Service is intended for PVCs carrying delay-sensitive, loss-intolerant data and is available with all PVC CIR. When Premier PVC Service is ordered a monthly recurring charge applies for each application of Premier PVC Service and is in addition to the applicable charges for Standard or Multi-jurisdictional PVCs. It is also available with Standard Interworked or Multijurisdictional Interworked PVCs if ordered off of the CBX 500 Platform.	(N) (N)
D.	**Optional Features and Functions**— These provide Customer with additional capabilities for interaction with the FRS packet network.	
1.	Additional logical channels allow 56 Kbps, 384 Kbps, and 1.536 Mbps Customers to simultaneously operate multiple channels on a single port. The maximum additional logical channels available for 56 Kbps or 384 Kbps UNI Port With Access Line is 199 and the maximum additional logical channels available for a 1.536 Mbps UNI Port With Access Line is 991. Each additional logical channel must be associated with a specific network address.	
a.	Effective July 7, 2003 this service component is no longer available to new customers. Moves, additions or changes are not permitted.	

1. Advanced Data Services
1.2 Frame Relay

1.2.2	Service Components	
2.	**Backup UNI** service is a disaster avoidance and disaster 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 is terminated at the primary Customer host location and in normal operation serves PVCs between the primary host location and various Customer remote locations. A second UNI, which is designated by the Customer as a Backup UNI, is installed and terminated at the customer's backup host location. During normal operations no PVCs are mapped to the Backup UNI. The Customer will be required to purchase both 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, which may serve as a backup to one or more Primary UNIs, can only backup one Primary UNI at a time. A Backup UNI must be the same port speed or greater than the Primary UNI(s).	(T)
a.	A Customer ordering Backup UNI service is responsible for the following:	
1.	Determining network configuration before and after the activation of Backup UNI service.	
2.	Providing the Company with the appropriate information required for joint development of the Backup UNI database.	
3.	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).	
4.	Contacting the Company to request all activations and deactivations of Backup UNI service.	
5.	Providing assistance, as requested by the Company, in the implementation and execution of the Customer's activation/deactivation of Backup UNI service.	

1.2.3	Provisioning of Service
A.	Company reserves the right to determine where equipment is to be deployed.

1. Advanced Data Services
1.2 Frame Relay

1.2.4	Interruption of Service	
A.	A UNI or NNI and its associated will be considered out of service when it does not provide functional permanent virtual circuits, as specified and subscribed to, to all other associated FRS UNIs or NNIs which are not otherwise out of service.	(C) (C)
B.	When service is interrupted for 30 minutes or more a credit allowance will be made for the portion of the service which is affected, provided that the interruption is brought to the attention of Company within 10 days. For the purpose of determining the amount of allowance, every month is considered to have 30 days.	
C.	Interruptions are credited to Customer at the proportionate monthly contract charge in half-hour multiples for each half hour or major fraction thereof of interruption.	
D.	No credit allowance will be made for the following interruptions:	
1.	Service interruptions of less than 30 minutes.	
2.	Service interruptions caused by the negligence of Customer or authorized user.	
3.	Service interruptions resulting from the failure of equipment provided by Customer or authorized user.	
4.	Service interruptions which continue due to the failure of Customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made begins on the seventh day after Customer receives Company's notification of the need for replacement and ends on the day after Company receives Customer's authorization for replacement.	

(X)

1.2.5	Customer Premises Equipment (CPE)	
A.	Customer must provide CPE that complies with the requirements and standards as specified in NTR - 74260.	(X)

1. Advanced Data Services
1.2 Frame Relay

1.2.6	Regulations	
A.	**Minimum Period**	
1.	All UNI Port With Access Line Connections, UNI Port Only Connections, and NNI Port Only Connections provided on a month-to-month basis are subject to a minimum service period of one month.	(C) (C)
2.		(D)
3.		
4.		
		(D)

1.2.7	Application of Rates and Charges	
A.	Service charges apply UNI Port With Access Line Connections, UNI Port Only Connections, and NNI Port Only Connections available on a Month-to-Month basis, in addition to the rates and charges for FRS. Service charges also apply to Additional Logical Channels for 56 Kbps, 384 Kbps and 1.536 Mbps UNI Port With Access Line Connections.	(C) (C)
1.	Non recurring charges do not apply to UNI Port With Access for 1, 3 or 5-Year Term Plans.	
B.	**Administrative Charge—** An administrative charge will be applied whenever a change is made, at Customer's request, to Customer's Address Map. Such changes are defined as those rearrangements necessary to add, delete, or rearrange the configuration of an existing Address Map. Although multiple changes may be caused by such actions, only one administrative charge will apply. The administrative charge also applies for customer-requested changes to the bandwidth capacity of existing circuits (e.g., 384 Kbps to 1.536 Mbps, or 4 Mbps to 10 Mbps). However, if a customer upgrades between service levels (e.g., 384 Kbps to 4 Mbps) or downgrades between service levels (e.g., 10 Mbps to 1.536 Mbps) the nonrecurring service charge associated with the new service level applies. The administrative charge applies per occurrence, per UNI Port With Access Line Connection or UNI Port Only Connection.	(C)

1. Advanced Data Services
1.2 Frame Relay

1.2.7	Application of Rates and Charges	
C.	**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.	(N)
D.	**Jurisdictional Change Charge**— Conversion of service to another jurisdiction will be treated as a disconnect of service and establishment of new service. A nonrecurring Jurisdictional Change Charge applies per UNI or NNI.	
E.	A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from the Verizon Telephone Companies FCC Tariff No. 20 are applicable, where available.	(N)

1. Advanced Data Services
1.2 Frame Relay

1.2.8	Variable Term Payment Plan (VTPP)	
A.	The monthly rates for FRS are offered under the VTPP as described herein. The VTPP monthly rates are payable over the following Optional Payment Periods (OPP) as selected by Customer.	
B.	OPPs of month to month, 1, 3, 5, or 7 year VTPPs are available for 56 Kbps, 384 Kbps and 1.536 Mbps UNI Port Access Line Connections.	
1.	Effective May 23, 2003, the 7 Year VTPP for 56 Kbps, 384 Kbps and 1.536 Mbps UNI Port With Access Line Connections is no longer available to new customers	(T) (T)
C.	OPPs of month to month, 1, 3 and 5 year VTPPs are available for 4, 6, 10, 22 and 44.736 Mbps UNI Port With Access Line Connection, all UNI Port Only Connection and all NNI Port Only Connection rate elements.	
D.	Additional logical channels and CIR PVCs are offered on a month to month basis only.	
E.		(D) (D)

1.2.9	Termination Liability	
A.		(D)
B.		
C.		
1.		
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3.		(D)
D.	Customer has the option of subscribing to additional FRS UNIs or NNIs under a separate OPP.	(C) (D) (D)

1. Advanced Data Services
1.2 Frame Relay

1.2.9	Termination Liability	
E.		(D) (D)
F.	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 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:	(C) (C)
	25% X MRC X # of Lines/Channels/Paths X Remainder of Term = Termination Charge	(N)
1.	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.	
2.	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:	
a.	Renew their term commitment	
b.	Commit to a new term period	
c.	Arrange for a change of service	
d.	Arrange for termination of the service	
3.	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 tariff (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.	
4.	Early termination charges will not be assessed under the following circumstances:	
a.	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;	
b.	Customer attempts to move the existing service to a new location within the Company's service area, but the service is unavailable;	
c.	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	(N)

1. Advanced Data Services
1.2 Frame Relay

1.2.9	**Termination Liability**	
d.	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 tariff 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.	(N) (N)

1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.3 Reserved For Future Use (T)

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1. Advanced Data Services
1.4 Asynchronous Transfer Mode - Cell Relay Custom Network Service (N)

1.4.1	Description
A.	ATM cell relay custom network is a telecommunications transport and switching service that provides for high-speed connectivity between/among widely distributed locations within a LATA. It is a fast packet, cell based technology which can support user applications requiring high bandwidth, high performance transport and switching. This connectivity is provided via PVCs which are implemented over access facilities and switches that are dedicated to high-speed telecommunication service.
B.	ATM cell relay custom network will allow Customers who have requirements for high-speed, inter-premises connectivity to interconnect their multiple locations, within a LATA, via a subscriber UNI from Customer's premises to Company hub or serving wire center.

1.4.2	Other
A.	Any attempt to assign this service in whole or in part to any entity other than an affiliate of Company or a successor to substantially all of the assets of Customer shall be void without the prior written consent of the other party.
B.	Customer acknowledges that the rates and other terms of this service are premised on Customer's usage commitment, unique network design requirements, and Customer's service mix, usage patterns and concentration, and other characteristics.

1.4.3	Definitions
A.	**Permanent Virtual Connection (PVC)**— A cell relay service element used to provide a virtual connection between two Customer locations. The PVC defines a path across the UNI between Customer premises and Company's ATM switch. Each UNI requires at least one PVC. In order to complete a connection from one Customer premises to another, two UNIs and a least two PVCs are required. The path is set up by Company based on information contained on a service order rather than by dial-up signaling. PVCs may consist of either virtual channel connections or virtual path connections.
B.	**User Network Interface (UNI)**— A dedicated digital line that provides a connection from Customer's premises to Company hub or serving wire center. The effective maximum data rate for these digital lines is 1.544 Mbps. Each UNI requires at least one PVC. Customer may elect to subscribe to multiple PVCs. This feature is established over the UNI via address mapping which enables Customer to have virtual connections to various locations.
C.	**Variable Bit Rate - Priority (Priority VBR)**— Provides for bursty data traffic with varying bandwidth requirements (e.g., applications which have time sensitive delivery requirements such as video or voice).
D.	**Virtual Channel Connection (VCC)**— A type of PVC with independent identify and defined service parameters that is provisioned via service order and cannot be altered by Customer without additional service order activity. (N)

1. Advanced Data Services
1.4 Asynchronous Transfer Mode - Cell Relay Custom Network Service

1.4.3	Definitions	
E.	**Virtual Path Connection (VPC)**— A type of PVC with defined service parameters that is provisioned via a service order. Customers may provision their own virtual connections within the VPC provided that the sum of the service parameters of all the virtual channels does not exceed the aggregate service parameters of the VPC.	(N)

1.4.4	Service Requirements
A.	Customer agrees to purchase the ATM cell relay custom network service UNI at the rates and quantities set forth in this Price List. Any other work, services or facilities required will be provided subject to prevailing Price List rates and charges, or if no Price List is applicable, at Company's then current retail rate.
B.	The service item is 1.5 Mbps user network interface (includes VBR - Priority One Bandwidth of 1.5 Mbps).
C.	The service period is 60 consecutive months.
D.	The purchase of a minimum of 30 UNIs is required to subscribe to this service.
E.	Customer is allowed a ramp up period of 18 months to fulfill the 30 UNI minimum obligation beginning with the installation of the first DS1 UNI. If a 30-circuit minimum is not met with the 18-month period, the 60-month rate will revert to a month to month rate for each UNI, using statewide average mileage for the circuits in place.
F.	Service must be based on a maximum average local channel length of 19.8 miles.
G.	**Locations**— Any combination of sites may be installed as long as the overall statewide average mileage for the local channels does not exceed 19.8 miles in local distribution channels charges. Where facilities are not available, then additional rates and charge will be developed on an individual case basis. Company reserves the right to review the mileage average of the existing Customer after the 18-month ramp up period and may choose to increase the monthly cost per UNI if the 19.8-mile average is exceeded.

1.4.5	Application of Rates and Charges	
A.	**Termination Charges**— If Customer disconnects prior to the end of the selected commitment period, the termination liability shall be the lesser of the following.	
1.	50% of the applicable monthly rates for each month and fraction thereof remaining between the date of termination and the end of the selected commitment period.	
2.	The difference between the contract rate and Company's rate for the actual period of service.	(N)

1. Advanced Data Services
1.4 Asynchronous Transfer Mode - Cell Relay Custom Network Service

1.4.5	Application of Rates and Charges	
B.	**Service Continuation**—If, at the time of expiration of the service period, Customer has not executed a new application with Company for the service and does not request discontinuance of the service in writing, then the service will be continued on a month to month basis at the then prevailing rate, or if no Price List is applicable, at Company's then current retail rate.	(N) (N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.1	Definitions	
	In addition to the General Definitions set forth in Tariff NH No. 83, Section 1.1. the following definitions apply:	
A.	**Committed Information Rate (CIR):** This parameter defines the rate that the Customer can expect to achieve on a particular Ethernet Virtual Circuit (EVC). CIR is specified in bits per second.	(N) (N)
B.	**Domain**: A Virtual Local Area Network (VLAN) or a collection of circuits that belong to one closed user group.	(T)
C.	**Excess Information Rate (EIR):** This parameter defines the rate beyond the CIR that the customer can expect to achieve on a particular EVC. EIR is specified in bits per second.	(N) (N)
D.	**Megabit Per Second (Mbps.):** The speed where data is being transferred in the network, where one Megabit Per Second equals the transfer rate of 1 million bits of data in 1 second	(T)
E.	**Nanometers (nm):** Wavelength frequency equivalent to 1 billionth of a meter	(T)

1.5.2	Service Descriptions	
A.	Transparent LAN Service (TLS) is a high speed data service that uses a shared optical transport network to allow for the interconnection of Local Area Networks (LANs) across selected metropolitan areas. TLS delivers interfaces of 10 Mbps, 100 Mbps or 1000 Mbps from the Customer's LANs to the shared network. TLS protects data privacy by using specialized screening software that permits subscribers to access only their data.	(T)
B.	TLS is available as two service types: Ethernet Multipoint Service (EMS) or Ethernet Relay Service (ERS) Standard. The Customer must select either EMS or ERS Standard as the service type for each domain:	(T)
1.	**Ethernet Multipoint Service (EMS)** is a connection-less Ethernet TLS service that allows connectivity among multiple Customer-designated locations within a LATA. With EMS, 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 among 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.	(T)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.2	Service Descriptions	
2.	**Ethernet Relay Service (ERS) Standard** is a connection-oriented Ethernet TLS service that allows for point-to-point connectivity between Customer-designated locations within a LATA. With ERS, an 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 the Customer's access lines. 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 access only their own data.	(N)
a.	Four EVC service classes are available for use with ERS: ERS Standard (ERS-STD): This service class is available with ERS – Standard UNI Port With Access Line Connections at 10, 100 and 1000 Mbps. ERS Standard is designed for Customer applications that do not require a Committed Information Rate (CIR) or low delay, where CIR equals 0 and Excess Information Rate (EIR) equals the number of Mbps of the selected ERS-Standard EVC service class. ERS Basic (ERS-B): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 1000 Mbps. ERS-B is designed for Customer applications that do not require a CIR or low delay, where the CIR equals 0 and EIR equals the number of Mbps of the selected ERS-B EVC service class. ERS Priority Data (ERS-PD): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 500 Mbps. ERS-PD is designed for Customer applications which do not require low delay, but require a CIR, where the CIR and EIR equal the number of Mbps of the selected ERS-PD EVC service class. ERS Real Time (ERS-RT): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 100 Mbps. ERS-RT is designed for Customer applications which require a CIR and low delay for some portion of their traffic, where CIR equals the number of Mbps of the selected ERS-RT EVC service class and EIR equals 0. 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 is 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).	(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.3	Regulations	
A.	A TLS network is provisioned through specialized wire centers in a specific geographic location. Customers gain access to the shared public wire center network via a switch, node or other Telephone Company equipment delivering service through a shared fiber path or network infra-structure and deployed in the Customer's serving central office (TLS-equipped central office) or deployed in leased space near the Customer's location. At subscription, the Customer has an option of selecting access lines at speeds of 10 Mbps, 100 Mbps or 1000 Mbps.	(T) (T)
B.	TLS is available to Customers whose serving central office is a TLS-equipped central office and whose location is within the maximum allowable range of the serving central office. The maximum allowable range is determined by the dB loss rate where the actual distance between the TLS equipped serving wire center and the Customer's location varies based on the specifics of the facility used in each serving arrangement.	(T)
C.	If the Customer's serving central office is not a TLS-equipped central office, the Customer may obtain service by purchasing Interoffice Mileage in addition to the TLS access line.	(T)(X)
D.	**Provision of Service**: The TLS service will consist of:	
1.	Network Interface Device (NID) at the Customer's premises to terminate the fiber pair or other optical transport.	(C)
2.	Optical Transport from the Customer's premises to the serving central office.	(C)
3.	Network Management including fault monitoring and diagnostics, performance and network configuration applications and manual monitoring when necessary.	
4.	User Network Interface (UNI) Port With Access Line Connection.	(T)
5.	Ethernet TLS Ethernet Virtual Circuit (Ethernet TLS EVC), where applicable.	(N)
6.	Interoffice Mileage, where applicable.	(T)
E.	**Availability of Service**- TLS will be provided seven days a week, 24 hours a day, from central offices equipped to provide this service.	
	ERS Service, including Premier Access Lines as defined in Section 1.5.5.A.1.c. and ERS-Std, ERS-B, ERS-PD, ERS-RT EVCs, as defined in Section 1.5.2.B.2, are available only from Central Offices equipped to support ERS service.	(N) (N)
F.	**Connections**- The network interface is the LAN interface on the TLS equipment at the Customer's premises. The Customer is responsible for any inside wiring required to connect the LAN to the TLS equipment.	
1.	The Customer is also responsible for installation, operation and maintenance of any Customer-provided equipment.	
2.	The Telephone Company has the service responsibility up to and including the network interface.	
G.	**Limitations**- The Customer's location must be within the maximum allowable range of the TLS-equipped central office.	(T)

(X)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.3	Regulations	
H.	**Maintenance Window-** To meet the Customers' requirements, occasional network upgrades must be performed. These network upgrades are needed to provide improved performance and new features. Generally these upgrades will be performed between the hours of 11 PM and 6 AM. Network upgrades are planned to provide Customers reasonable and timely notification in order to minimize any impact on the Customers' service.	(X) (C)
I.	**Technical Specification**- The technical specifications for TLS are delineated in IEEE802.3-2000.	
J.	**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 and 1000 Mbps access is full duplex.	
K.	TLS is available where facilities and conditions permit. Special construction charges may apply.	
L.	The associated regulations, rates and charges under the appropriate Telephone Company Tariff shall apply in addition to the regulations, rates and charges associated with TLS.	(X)

1.5.4	Optional Features
A.	**Customer Service Management (CSM)**
1.	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. CSM is provided per customer Domain/VLAN.
2.	CSM will be provided where conditions and facilities permit.
3.	The Company reserves the right to temporarily interrupt CSM for maintenance, software upgrades, and in emergency situations.

1.5.5	Application of Rates and Charges	
A.	The following rate elements are applicable to TLS:	
1.	**UNI Port With Access Line Connection**	(T)
a.	**Standard Access Lines** (available for EMS or ERS Standard Service Type) – 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).	(T)(C)
	The Standard Access Lines are offered on a month-to-month basis, or as a three-year or five-year Term Commitment Plan.	(T)
	A nonrecurring charge applies to the installation of the Standard and Protected Access Lines provided on a month-to-month basis.	(T)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.5 Application of Rates and Charges

A. (Cont'd)

b. **Protected Access Line** (available for EMS Service Type Only) – The Protected Access Line is offered on a month-to-month basis, or as a 3-year or 5-year Term Commitment Plan. A nonrecurring charge will apply to the installation of a Protected Access Line provided on a month-to-month basis. A monthly rate applies on a per-line basis, based on the speed of the access connection (i.e., 100 Mbps or 1000 Mbps). Protected Access Lines are provisioned as a survivable service with an alternate fiber pair between the central office and the Customer premises. Protected Access Lines allow the Company to recover from a detected failure by moving the Customer's data to an alternate fiber pair in approximately one second. 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. (N)

c. **Premier Access Line** – The Premier Access Line is offered on a month-to-month basis or as a 3-year or 5-year Term Plan. A nonrecurring charge applies to the installation of the UNI provided on a month-to-month basis. Premier Access Lines are available at 100 Mbps or 1,000 Mbps and provide connectivity between the Customer premises and the serving wire center. ERS – Premier UNI Port With Access Line Connection requires some combination of ERS-B, ERS-PD, and/or ERS-RT EVC service classes, as described in Section 1.5.2.B.2, in order to establish point-to-point connectivity among the Customer's access lines. A Customer cannot mix ERS-Premier UNI ports with any other UNI type.

All of the following requirements must be met in order to provision ERS – Premier UNI Port with Access Line Connections:

The percentage allocated for EVC bandwidth for ERS-B is less than or equal to 500% of UNI Speed; and

The percentage allocated for EVC bandwidth for ERS-PD is less than or equal to 100% of UNI Speed; and

The percentage allocated for EVC bandwidth for ERS-RT is less than or equal to 50% of UNI Speed; and

The percentage allocated for EVC bandwidth for ERS-PD and ERS-RT is less than or equal to 100% of UNI Speed; and

The percentage allocated for EVC bandwidth for ERS-B and ERS-PD and ERS-RT is less than or equal to 600% of UNI Speed.

d. **EMS – Real Time (EMS-RT) Access Line** – The EMS-RT Access Line is offered on a month-to-month basis or as a 3-year or 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 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 a Committed Information Rate (CIR) equal to 2 Mbps and an Excess Information Rate (EIR) equal to 0 and where each 1,000 Mbps UNI has CIR equal to 10 MBPS and EIR equal to 0. The remainder of the UNI can be used for CIR equal to 0 with EIR equal to 0 traffic. A Customer cannot mix an EMS-RT Access Line with the ERS Service type, but may mix an EMS-RT Access Line with EMS Access Lines. (N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.5 Application of Rates and Charges

2. 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 charge will apply per ERS Standard EVC. (N)

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 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 incur only one EVC non-recurring charge.

The number of EVCs permitted on each ERS – Standard UNI Port With Access Line Connection and/or ERS Premier UNI Port With Access Line Connection is limited as follows:

10 Mbps	=	2 EVCs
100 Mbps	=	No more than 10 EVCs
1000 Mbps	=	No more than 75 EVCs

ERS 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 Mbps UNI Max/EVC
ERS-B	100 Mbps	1000 Mbps
ERS-PD	50 Mbps	500 Mbps
ERS-RT	50 Mbps	100 Mbps

(N)

3. Interoffice Mileage – The Interoffice Mileage charge applies to 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 the latitude and longitude of each central office. The mileage measurement is calculated as specified by NECA Tariff FCC No. 4. The mileage rate applies on a per-mile basis. This charge applies in addition to the applicable rates and charges for the TLS UNI Port with Access Line. (T) (X)

4. Domain/LAN Extension Equipment Changes – Customer requests for changes in Domains and replacement of LAN extension equipment will be charged a nonrecurring charge per location, per change. (T)

B. Minimum Period – The minimum period for TLS under the month-to-month plan is nine months.

C. Term Payment Plans – The TLS UNI Port with Access Lines are offered under a three (3) year or five (5) year Term Payment Plan. The regulations applicable to TLS provided under a Term Payment Plan are specified in 1.5.6 following. (T) (T) (X)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.5	Application of Rates and Charges	
D.	**Moves, Changes and Upgrades** – 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 a new service for the application of all charges.	(T) (C) (C) (X)
	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, except for termination liability as specified in 1.5.6.D.4.	(N)
	Customer requests for changes in domains and replacement of LAN extension equipment will be charged a nonrecurring charge per location, per change.	(N)
E.	**Optional Features –** Additional rates and charges apply for optional features.	(X)
1.	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.	(X)

1.5.6	Termination Liability
A.	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 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example: 25% X MRC X # of Lines X Remainder of Term = Termination Charge.
1.	Early termination charges will apply only to those rate elements under a term plan. 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.
B.	**End of Term Options** - Prior to the end of the term plan, the Customer may select one of the following options, to be effective at the end of the term:
1.	Renew term plan,
2.	Commit to a new term plan,
3.	Arrange for a change of service, or
4.	Arrange for termination of the service.
C.	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 tariff (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.

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.6	Termination Liability	
D.	Early termination charges will not be assessed under the following circumstances:	(X)
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 plan for the same service before the current plan expires and the value of the new term plan is equal to or greater than the remaining value of the current term plan;	
4.	Customer changes to another service or service type and/or upgrades service to a higher speed or capacity under a term plan, provided the following conditions are met:	(C)
a.	The value of the new term plan is equal to or greater than the remaining value of the current term plan,	
b.	The Telephone Company provides the new service via tariff or on an individual case basis (ICB) and,	(C)
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.	(X)

1.5.7	Interruption of Service
A.	**Interruption of Service** - For Transparent LAN Service, any complete failure of service which continues for more than 24 hours, credit will be applied according to Part A, Section 1.4.4.

1.5.8	Service Level Agreements (SLA)	
A.	Service Level Agreements (SLA) provide TLS Customers with Service Response Credits (SRC) applied to their Verizon New Hampshire telephone bill if the Telephone Company fails to meet certain operational and network thresholds. SLAs are available at no additional charge or fee to the Customer.	(N)
	A Customer is eligible for the SLA SRC provided that 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.	(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.8	Service Level Agreements (SLA)	(N)
B.	The TLS SLA includes the following measurements:	
1.	Operational SLAs	
a.	**Mean Time to Repair (MTTR)** is the average mean time for the Telephone Company to repair Customer-reported interruptions of service that are within the Telephone 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 Telephone Company's network that is used to furnish service under this tariff. **Measurement** - the Telephone 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 Telephone 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 Telephone Company and the date and time when such ticket is closed by the Telephone 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 Telephone Company is awaiting the Customer's authorization to commence work on a TLS Access Line; - periods when the Telephone 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 above occurrences exist as listed in Section 1.5.8.C – **SLA Exclusions** The SLA shall not apply to cases of trouble where no trouble was found or repeated cases of for the reporting of 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. **SRCs** - If the MTTR is greater than four (4) hours over the calendar month, then 50% of the one 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 Telephone Company. The MTTR SRC credit excludes and is not applicable to scheduled maintenance, scheduled downtimes or delays resulting from an event of force majeure.	(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.8	Service Level Agreements (SLA)	(N)
B.	(Cont'd)	
b.	**Network Availability** – is the percentage of time during a calendar month that the TLS is available for use by the Customer.	
	Measurements - The Telephone 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 Telephone 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 Telephone Company.	
	SRCs - If the overall Network Availability measurement is less than the threshold of 99.90% for a calendar month, the Telephone 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 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	
	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 per 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'. 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:	(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.8 Service Level Agreements (SLA) (N)

2. (Cont'd)

Data Delivery Ratio (DDR) is 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 conform to the subscribed Committed Information Rate (CIR) profile. Interruptions caused by MTTR activity shall be excluded from the measurement of DDR.

	Data Delivery Ratio	Data Delivery SRCs
Real Time EVC Bandwidth	The Telephone Company threshold for Data Delivery Ratio is 99.5% in a calendar month.	If the overall Data Delivery measurement does not meet the per-month conformance, then the Telephone 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.
Priority Data EVC Bandwidth	The Telephone Company threshold for Data Delivery Ratio is 99% in a calendar month.	

Round Trip Delay (RTD) is 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 conform to the subscribed CIR profile.

	Delay Measurement	Delay SRCs
Real Time EVC Bandwidth	The Telephone Company threshold for Delay is 20 milliseconds.	If the overall delay measurement does not meet the per-month conformance, then the Telephone 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.
Priority Data EVC Bandwidth	The Telephone Company threshold for Delay is 50 milliseconds.	

(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.8 Service Level Agreements (SLA) (N)

2. (Cont'd)

Jitter is 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 conform to the subscribed CIR profile.

	Jitter Measurement	Jitter SRCs
Real Time EVC Bandwidth	The Telephone Company threshold for Delay is 5 milliseconds.	If the overall jitter measurement does not meet the per-month conformance, then the Telephone 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. The SLA SRC applies to the following TLS elements:
   - UNI Port with Access Line Connection
   - Ethernet Virtual Circuit (EVC) Bandwidth

C. **SLA Exclusions** - do not apply to the extent that any of the following reasons prevented the Telephone Company from meeting such SLAs:

1. The acts of the Customer or other party authorized by the Customer to use the TLS circuit/connection, including but not limited to Customer's negligence, Customer's refusal to grant the Telephone Company reasonable access to its premises for testing/repair, Customer's refusal to release the TLS circuit/connection for testing and/or repair, Customer's maintenance activities or its rearrangement of the TLS circuit/connection or where the Customer has exceeded the purchased EVC bandwidth;
2. Subsequent reports (i.e., additional Customer inquiries) while the trouble is pending;
3. Service troubles closed due to the Customer's action;
4. Service troubles repaired by the Telephone Company prior to its receipt of a trouble report;
5. Service trouble caused by the Customer's CPE or facilities on its side of the demarcation point or any power, equipment, service or systems not provided by the Telephone Company;
6. An Interruption related to the provisioning of a new TLS Access Line or Access Lines in service for less than a month;
7. Scheduled maintenance and downtimes;
8. Unavailability of network monitoring or management equipment or reporting;
9. Any other reason outside the control of the Telephone Company. (N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.8	Service Level Agreements (SLA)
D.	**Limitation on SRCs** - The combined total of any SRCs applied to the Customer's TLS service for a calendar month must meet the following conditions:
1.	For any calendar year, the total SRCs shall not exceed ten percent (10%) of the total annual revenue of the prior calendar year billed to the Customer for qualifying service elements, or $200,000 per Customer, whichever is less. For any calendar year in which the Customer had less than twelve (12) full months of revenue for qualifying service elements in the prior calendar year, the SRCs may not exceed $20,000 per Customer for TLS Network.
a.	To receive an SRC, the Customer must request such SRC in writing within thirty (30) calendar days of the end of the monitoring period of the referenced SRC. The request must include a list of all impacted EVC identification numbers and the type of SRC requested for each EVC.

(N)

1.5.9	Responsibility of the Customer
A.	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 Telephone Company reserves the right to change, alter or discontinue the optional SRC plan at its discretion.
1.	To receive credit, the Telephone 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 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.
B.	**Operational SLAs** - The Customer must submit in writing a list of all rate elements, 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 Telephone Company entity in the manner prescribed by the Telephone Company.
C.	**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 Telephone Company and be capable of the following:
1.	**DDR SLA -** the equipment must be capable of determining the number of actual packets sent and successfully received between two (2) Customer locations.
2.	**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).

(N)

1. Advanced Data Services
1.5 Transparent LAN Service (TLS)

1.5.9	Responsibility of the Customer
C.	(Cont'd)
3.	**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).
D.	All equipment must be capable of measuring from edge to edge (Customer Premises Equipment (CPE) to CPE) and of making the measurement every five (5) minutes per hour for four (4) hours total per day, for a total of two-hundred and 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.

(N)

1.5.10	Responsibility of the Telephone Company
A.	All service performance and provisioning measurements are conducted using the Telephone Company monitoring systems and procedures. The Telephone 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 Telephone Company shall include data measured throughout the territories covered by this tariff.
B.	The Telephone Company will research and validate the Customer-submitted SRC in accordance with its own procedures and systems. The Telephone Company may, at its discretion, use either the Customer-provided data or its own measurement data (or as described in 1.5.9.D) to evaluate and assess whether SRCs are warranted.

(N)

1. Advanced Data Services
1.6. Asynchronous Transfer Mode Cell Relay Service (N)

1.6.1	General
A.	This section contains definition, regulations and charges applicable to the provision of Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) furnished by the Company within the State of New Hampshire, where conditions and facilities permit.

1.6.2	Definitions of Terms and Abbreviations
A.	In addition to the General Definitions set forth in NH PUC 83, Part D, Section 1.1.2. the following definitions apply:
1.	**Best Effort Service** — A term for Quality of Service (QoS) class with no specified parameters and with no assurances that the traffic will be delivered across the network to the target device.
2.	**Cell** — A unit of transmission in Asynchronous Transfer Mode (ATM). A cell is a fixed-size packet consisting of a 48-octet payload and 5 octets of control overhead in the form of a header.
3.	**Cell Delay Variation Tolerance (CDVT)** — The amount of variation permitted for early arrival of clusters of cells at the source UNI. Cells exceeding the tolerance will be declared non-conforming and will be discarded.
4.	**Constant Bit Rate (CBR)** — One of four ATM Qualities of Service (QoS) supported by Verizon. CBR is a steady flow of user information required to support applications where variable delays in transmission would negatively impact the information content. Examples of applications requiring CBR are voice, and some types of video.
5.	**Maximum Burst Size (MBS)** — The maximum number of cells that can be passed to the service provider's network in a single burst at a rate that exceeds the Sustained Cell Rate (SCR, see 1.6.2.A.7. below), but does not exceed the Peak Cell Rate (PCR, see 1.6.2.A.6. below) assigned to the Variable Bit Rate (VBR, see 1.6.2.A.10. below) connection. Cells exceeding the MBS will be declared as nonconforming and will be discarded.
6.	**Peak Cell Rate (PCR)** — The highest available rate of information transfer on a VBR connection, and the continuous cell rate allowed for CBR. Cells exceeding the sustained cell rate and below the peak cell rate will be limited to a maximum burst size.
7.	**Sustained Cell Rate (SCR)** — The maximum rate at which VBR cells may be constantly transmitted with a high assurance that no cells will be lost. Cells transmitted within the SCR have the highest priority of the VBR traffic and will not be tagged as eligible for discard.
8.	**Synchronous Optical Network (SONET)** — A standards based fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format. As defined in this service offering, ATM SONET UNI connections are provisioned as a survivable service with an alternate (not diverse) route.
9.	**Unspecified Bit Rate (UBR)** — One of four ATM Qualities of Service (QoS) supported by Verizon, UBR is a best-effort service with no performance guarantees. UBR is best suited for applications that are not delay sensitive such as web browsing, e-mail or data base queries. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.2 Definitions of Terms and Abbreviations

10. **Variable Bit Rate (VBR)** — Two of the four ATM Qualities of Service (QoS) supported by Verizon. VBR is a flow of information that is bursty and does not flow at a constant rate. VBR is available as Real Time (VBRrt) and VBR non-real time (VBRnrt). An example of an application using VBR is Local Area Network (LAN) traffic.

11. **Virtual Channel Connection (VCC)** — A connection set up by the Telephone Company based on information contained on a service order rather than by dial-up signaling. A Virtual Channel Connection (VCC) is a type of PVC, with independent identity and defined service parameters, that is provisioned via service order, and cannot be altered by the customer without additional service order activity.

12. **Virtual Path Connection (VPC)** — A type of PVC with defined service parameters that is provisioned via service order. 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.

1.6.3 Description

A. 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. ATM CRS consists of a User Network Interface (UNI). 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 Customer's premises to one of Company's ATM CRS hubs. UNIs are also provisioned as a Port Only Connection as defined in 1.6.4.A.2.

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.

UNIs, Port Only Connections, PVCs and SVCs are further described in 1.6.4.

1.6.4 Service Components

A. ATM CRS consist of the following components:

1. **User Network Interface (UNI) Port With Access Line Connections,** which are available at the DS1, DS3, OC3c, and OC12c levels, provide dedicated transport between Customer-designated premises and an ATM CRS hub. There are two types of UNIs: Full and Incremental. The Full UNI includes all available bandwidth in one rate, and the Incremental UNI is sold and provisioned with PVC and/or SVC bandwidth increments. The DS1 UNI is not offered in increments.

In order for Customer traffic to be carried on the network, each Incremental UNI requires at least one 5 Mbps or 15 Mbps increment of either PVC or SVC bandwidth. The Customer may elect to subscribe to multiple PVCs. This feature is established over the UNI via connection identifiers, which enable the Customer to have virtual connections to various locations. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.4	Service Components
A.	(Cont'd)
	UNIs are provided at nominal data rates of 1.544 Mbps (DS1), 44.736 Mbps (DS3), 155.52 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 premises) and mileage ranges (expressed as tiers) associated with extending the UNI to the wire center designated as the ATM CRS hub. The OC3c UNI Port With Access Line Connections are provisioned on either Unprotected, Protected or Protected Diverse Synchronous Optical Network (SONET) facilities. The OC12c UNIs are provisioned on either Protected or Protected Diverse SONET facilities. 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 an alternate (not diverse) 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. Unprotected SONET UNI is a type of OC3c ATM UNI that is provisioned over SONET with no alternate facility between the ATM CRS hub and the customer premises. DS3, OC3c, OC12c and other interfaces, both electrical and optical, are supported and defined by the technical specifications set forth in 1.6.5.
2.	**Port Only Connections** - can be established as a User Network Interface (UNI) arrangement. The UNI 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 bandwidth included up to the maximum rate of the port. Each port can accommodate multiple PVCs or SVCs depending on the bandwidth purchased. UNI Port Only is available with one-year, two-year, three-year and five-year terms. 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 under the appropriate Company Tariff 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 tariff. 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. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.4	Service Components
A.	(Cont'd)
3.	**Permanent Virtual Circuit (PVC)** - The PVC defines a virtual connection across a UNI between the Customer premises and 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 or more Customer-designated premises 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 service order rather than by dial-up signaling. PVCs consist of two 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 service order, and cannot be altered by the Customer without additional service order activity. A VPC is a type of PVC with defined service parameters that is provisioned via service order. 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.
4.	**Switched Virtual Circuit (SVC)** is 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 quality 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.
	Effective Bandwidth is 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, and the quality of service parameters selected, i.e., CBR, 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 quality of service level selected. However, effective bandwidth is consumed in varying degrees based on the quality of service parameters selected. The higher the quality of service, the more bandwidth will be reserved. A CBR PVC with the same PCR as a VBR PVC will reserve more effective bandwidth. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.5	Technical Specifications
A.	Technical Specifications are delineated as follows:
1.	ATM CRS - Technical References TR-NWT-001112, GR-1110-CORE, GR-1248-CORE, and SR-3330.
2.	DS1 and DS3 signals - in TR-INS-000342.
3.	OC3c and OC12c signals – in GR-253-CORE, Issue 2.
4.	UNIs - in ATM Forum ATM User Network Interface Specifications V3.0, af-uni-0010.001, and V3.1, af-uni-0010.002.
a.	Interface specifications for Customer-provided ATM CRS compatible premises equipment or devices must also be in accordance with the specifications defined in these documents.

1.6.6	Regulations
A.	Provision of Service
1.	At least one UNI Port With Access Line or Port Only, which has a maximum nominal capacity for DS1 (1.544Mbps), DS3 (45 Mbps), OC3c (155 Mbps), or OC12c (622 Mbps), must be provided. The OC3c UNIs are provisioned over Unprotected, Protected or Protected Diverse SONET facilities. The OC12c UNIs are provisioned over Protected or Protected Diverse SONET facilities. The Protected OC3c and OC12c SONET facilities provide a backup facility that automatically switches in the event of a failure on the primary facility. The Unprotected OC3c SONET facilities do not have an alternate facility.
2.	Unlimited usage is provided with each purchased bandwidth.
3.	Incremental UNIs must have at least one 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.
4.	When PVC bandwidth is purchased, one or more PVCs must be selected for Customer traffic to traverse the network.
5.	Two types of PVCs, Virtual Channel Connections (VCCs) and Virtual Path Connections (VPCs) support the following Quality of Service (QoS) Classes.
a.	Constant Bit Rate (CBR)
b.	Variable Bit Rate real time (VBRrt)
c.	Variable Bit Rate non-real time (VBRnrt)
d.	Unspecified Bit Rate (UBR)
B.	Tier Structure for Local Serving Offices
1.	Locations (wire centers) that provide ATM CRS have been designated as ATM hubs. Each local serving office has been placed in Tier 1, 2 or 3, based on its location relative to the closest ATM CRS hub. Tiered mileage is structured as follows: Tier 1 is 0-5 miles; Tier 2 is over 5-25 miles; and Tier 3 is over 25-50 miles. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.6	Regulations
C.	Service Functionality
1.	The ATM CRS functionality consists of transporting 53-byte cells of information from the Customer location to a Company ATM hub over a UNI. The traffic is routed in the switch to another UNI, or other suitable network connection.
D.	The ATM CRS customer selects certain QoS classes with related parameters designed to support the intended application and/or CPE.
1.	**Constant Bit Rate (CBR)** supports the following parameters:
a.	Peak/Sustained Cell Rate consists of customer specified increments of 64 Kbps up to the maximum speed of the UNI.
b.	Non-conforming cells are discarded.
c.	Cell Delay Variation Tolerance (CDVT) levels are as follows:
	DS1 = 600 microseconds
	DS3 = 600 microseconds
	OC3c = 600 microseconds
	OC12c = 600 microseconds
2.	**Variable Bit Rate (VBR) (Real Time/Non-Real Time)** supports the following parameters:
a.	Sustained Cell Rate (SCR) consists of customer specified increments of 64 Kbps up to the maximum speed of the UNI.
b.	Peak Cell Rate (PCR) consists of customer selectable increments of 64 Kbps up to line rate. Default is 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-conforming cells are discarded.
d.	Cell Delay Variation Tolerance (CDVT) levels are as follows:
	DS1 = 600 microseconds
	DS3 = 600 microseconds
	OC3c = 600 microseconds
	OC12c = 600 microseconds
e.	Maximum Burst Size (MBS):
	Is customer selectable
	Has a default of 100 cells on PVCs
	Is dependent upon the signaling on SVCs
3.	**Unspecified Bit Rate (UBR)** supports the following parameters:
a.	Has no QoS descriptors, i.e. CBR or VBR
b.	Is a Best-effort service
c.	Discards cells exceeding network capacity

(N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.6	Regulations
E.	Special Conditions
1.	ATM CRS is available where facilities and conditions permit. For locations where the Customer requests ATM CRS and digital or SONET facilities are not available, special construction charges may apply.
2.	Maintenance Window – To meet the Customer's requirements, occasional network upgrades must be performed. These network upgrades are needed to provide improved performance and new features. Generally these upgrades will be performed between the hours of 11 PM and 8 AM. Network upgrades are planned to provide Customers reasonable and timely notification in order to minimize any impact on the Customer's service.
F.	The minimum period for ATM CRS is one month. Termination charges may apply.

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

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

1.6.9	Application of Rates and Charges
A.	Monthly Rates – Apply to User Network Interfaces (UNIs) Port With Access Line Connection, User Network Interfaces (UNIs) Port Only Connection and Effective Bandwidth for Incremental.
1.	User Network Interfaces (UNIs) Port With Access Line Connection - A monthly rate applies on a per Port With Access Line basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, SONET, Protected or Protected Diverse) of the access connection. UNI Port and Access is offered as a one-year, two-year, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply.
2.	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-year, two-year, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.9	Application of Rates and Charges
A.	(Cont'd)
3.	Effective Bandwidth for Incremental UNIs - A monthly rate applies for incremental UNIs for CBR or VBR PVC and SVC bandwidth at 5 Mbps for DS3 or OC3c and at 15 Mbps for OC12c. A monthly rate also applies for incremental UNIs for UBR PVC and SVC bandwidth for DS3, OC3c and OC12c. No nonrecurring charges apply. 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 50% of the effective bandwidth capacity of the UNI. When UBR bandwidth is made available, it is available for both PVCs and SVCs. No nonrecurring charges apply.
B.	Nonrecurring Charges – Apply to Permanent Virtual Circuits (PVCs), Closed User Groups (CUG) and Administrative Charge.
1.	Permanent Virtual Circuits (PVCs) - A nonrecurring charge applies per order for Virtual Channel Connection (VCC) or Virtual Path Connection (VPC). PVCs are ordered per UNI. If multiple UNIs are involved, a nonrecurring charge will apply to each UNI on which the virtual connections will reside. The nonrecurring charge does not apply when PVCs are installed at the same time as the respective UNI.
2.	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.
3.	Administrative Charge – A nonrecurring charge applies (per order, per UNI) when Customer initiates a change to one or more of the following: UNI bandwidth, PVCs, quality of service parameters and/or other service parameters that do not require changes in physical facilities and that can be provisioned by Company without the dispatch of a technician to Customer location. For each service 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 service order with the installation of a UNI.
C.	Special Facilities Routing – The Customer may request that the facilities used to provide ATM CRS be specially routed. Additional charges will apply based on cost.
D.	Acceptance Testing – At no additional charge, the Company will, at the Customer's request, cooperatively test, at the time of installation. Acceptance tests will include tests for the parameters applicable to the service as specified in the order for service.
E.	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 the application of all charges. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.10	Extended Service Plan (ESP)
A.	The ATM CRS UNI Port and Access and Port Only rate elements are available under an ESP. ESPs are comprised of term commitments of one, two, three and five years at the applicable rates set forth in Part M, Section 4.5. Rate elements must be ordered under the same ESP period.

1.6.11	Termination Liability
A.	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 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
B.	Early termination charges will apply only to those rate elements under a term commitment. 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.
C.	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 tariff (i.e., one-year term, 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. (N)

1. Advanced Data Services
1.6 Asynchronous Transfer Mode Cell Relay Service (N)

1.6.11	Termination Liability
D.	Early termination charges will not be assessed under the following circumstances:
1.	Customer moves existing service to a new location within the same address and/or same building (inside move) and maintains that service for the remainder of the term;
2.	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
3.	Customer 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 both the existing and the new service via tariff 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.

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Lisa Thorne

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

1.7.1 Definitions

Add/Drop Multiplexing (ADM) – a multiplexing function that allows lower level signals to be added or dropped from an optical carrier channel.

EDSS Port (Port) - an EDSS rate element that denotes the interface at which a channelized or lower speed service terminates or originates at an EDSS node.

High Speed Interface – an EDSS rate element on a partial ring service that allows high-speed connection of the Company's facilities to the facilities of the customer or of a third party. High-speed connection is provided at a location that is mutually agreed upon by the Telephone Company and the customer.

Optical Carrier Rate (OC #) – a SONET transmission signal/speed, line rate, or service. The rates are in multiples of an OC1, which is equivalent to an Synchronous Transport Signal (STS1) Level (51.84 Mbps), SONET's basic rate:

OC(#) Rate	Bandwidth Capacity
3	155.52 Mbps
12	622.08 Mbps
48	2.488 Gbps
192	9.952 Gbps

Optical Carrier Rate Concatenated (OC#c) – a clear channel SONET transmission using only one framing format. Generally, an OC3 signal provides three Synchronous Transport Signal (STS1) frame formats with 3 overheads for a total capacity of 2268 bytes per Synchronous Payload Envelope (SPE) frame; in an OC3c signal, one STS3c frame format is used with one overhead, increasing the total payload capacity to 2340 bytes per SPE frame.

OC12+3, OC48+3, OC192+3, OC192+12, and OC192+48 – designations for nodes in ring-on-ring designs; the higher speed ADM is part of the true ring, and the lower speed ADM is connected for the purpose of mapping lower speed services onto the STS1s of the OC12, OC48 or OC192.

Node – an Enhanced Dedicated SONET Service (EDSS) rate element and a designation of either a customer location or Central Office on a SONET ring that has ADM capability. It is also the address of where a channelized (lower speed) service originates or terminates on a ring.

Synchronous Optical NETwork: (SONET) – a standard for the transmission of high capacity bandwidth over optical facilities. This synchronous transmission platform utilizes a modular multiplexing approach. Because of the large bandwidth, some of the payload is used to monitor, protect, manage and improve the transmission of the signal.

Synchronous Transport Signal Level (STS1) – a 51.84 Mbps signal that is the electrical equivalent of the OC1 or a DS3 with additional Mbps devoted to SONET overhead information. An STS1 can carry a DS3 or 28 DS1s when specifically formatted (mapped). These DS1s may be accessed off-ring using the tariffed DS3 to DS1 multiplexing optional service or via a DS3 Transmux port.

Transmuxing – the function of an EDSS DS3 Transmux port that performs a DS3 to DS1 conversion at an EDSS Node. The DS3 to DS1 conversion allows a single EDSS DS3 Transmux port to be associated with up to twenty-eight (28) Virtual Tributary VT1.5 mapped EDSS DS1 ports. Transmuxing within the EDSS network retains DS1 visibility allowing for proactive maintenance capability of DS1 signals.

Virtual Tributary (VT) – a SONET structure designed for transport of sub-STS1 payloads. A DS1 is mapped into the SONET format using a VT1.5 as a packaging mechanism that is internal to the SONET signal.

(N)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

Rates and charges for services explained herein are contained in Part M, Section 4.

1.7.2	Description
A.	The Telephone Company's **Enhanced Dedicated SONET Service** (EDSS) is an optical high capacity service provided using SONET-based technology. EDSS is provided on SONET facilities except where a service is extended on an "off-net" facility. EDSS provides the customer a dedicated high capacity customized network. The network is in a ring architecture or topology that assures greater survivability and can be arranged as a full ring, a partial ring, or a ring-on-ring topology that provides connectivity to multiple customer locations.
1.	A full ring must have a minimum of three nodes with at least one of the nodes being located in a Telephone Company Central Office (CO) and one being located at a customer premises. The fiber path is such that when traversing the ring, the starting node and the end node are the same.
2.	A partial ring must have a minimum of two nodes with at least one of the nodes being located in a CO and one being located at a customer premises. The customer premises node can be substituted with a high-speed interface if the customer circuits that are provisioned on the partial ring are connected in a CO. The fiber path is such that when traversing the ring, the starting node and the end node are different.
3.	A ring-on-ring arrangement which is a full ring riding over a larger full ring. The lower speed ring must have a minimum of two nodes with at least one of the nodes being located at a customer premises.
B.	EDSS is an alternative to basic High Capacity point-to-point service between multiple customer locations. Monthly rate elements include ports, nodes, mileage and high-speed interfaces (certain partial ring configurations only). When a DS1 service is provided between a DS1 port on an OC3 EDSS CO node and a channel of a multiplexed 44.736 Mbps or groomed NES DS3 facility, a ThruPath Connection nonrecurring charge applies. ThruPath connections at service levels less than, or greater than, DS1 are prohibited with EDSS.

1.7.3	Technical Specifications
A.	Technical specifications are delineated in the following publications:
1.	Telcordia Document GR-253-CORE; Issue 2, December 1995; Revision 1, December 1997 " Synchronous Optical Network (SONET) Transport Systems: Common Generic Criteria;"
2.	Telcordia Document GR-1374-CORE; Issue 1, December 1994; "SONET Inter-Carrier Interface Physical Layer Generic Criteria for Carriers;"
3.	American National Standard, ANSI T1.105-1995; "Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;"
4.	Telcordia Document GR-1377-CORE; Issue 5, December 1998; "SONET OC192 Transport System Generic Criteria;"
5.	American National Standard, ANSI X3.802.3, Telecommunications and information exchange between systems-Local and Metropolitan Areas Networks-Specific Requirements-Part 3, Released 1998; and,
6.	American National Standard, ANSI X3.802.3z, Supplement to Standard for Information Technology-Local and Metropolitan Area Networks, Part 3, Released 1998.

(N)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

1.7.4	Regulations
A.	**Provision of Service**
1.	**All Rings**
a.	When a customer premises node is located in the same building as a CO node, there may be less diversity between the two nodes.
b.	When a customer transmits STS1, Internet Protocol or Ethernet signals, the mapping feature must be employed.
c.	Ethernet services are provided on a point-to-point basis between two suitably equipped EDSS nodes.
d.	Extended Superframe Format (ESF) is required on all DS1 circuits.
e.	EDSS is designed to function normally with transmissions of less than 20 miles, or with transmissions through up to 5 COs. Generally, a transmission of 20 or more miles or a transmission through 6 or more COs will be subject to loss of signal integrity. Additional nodes may be added to maintain signal integrity.
f.	The customer specifies the ring capacity in terms of optical carrier rates. EDSS is available in capacities of OC3, OC12, OC48 and OC192. Lower speed channel services are provided between nodes via ports.
g.	EDSS is deployed upon customer request, and is available based on negotiated intervals. Where suitable SONET facilities are not available, Special Construction rates and charges may apply.
h.	The customer must provide, at no cost to the Telephone Company, suitable and secure space, suitable environmental conditions, and uninterrupted power supply, building entrance facilities, and conduit for placement of the facilities and network equipment at its locations as necessary to provide the service.
i.	One or more lower speed node(s) may subtend a higher speed node (e.g., an OC12 node may subtend an OC192 node). Rates and charges apply for both the higher speed node and for each subtending lower speed node provided. Additionally, the applicable port charge will apply to drop the lower speed channel that connects the higher speed node to the subtending lower speed node.

(N)

1. Advanced Data Services (N)
1.7 Enhanced Dedicated SONET Service

1.7.4 Regulations

A. Continued

2. Partial Ring

When EDSS is provided in a partial ring configuration, the following applies:

a. The customer must provide the Telephone Company with its fiber optic facility requirements (i.e., whether it will use single mode fiber or multi-mode fiber) prior to the Telephone Company ordering the necessary SONET network equipment to provide the requested service. The customer may utilize its own fiber optic facilities or the facilities of a third party.

b. When ordering lower speed channels that originate at and terminate to nodes that are not within the partial ring provided by the Telephone Company, the customer must provide the Telephone Company with a copy of the order the customer placed with the third party provider, to insure technical compatibility for mapping channels between the service provided by the Telephone Company and the service provided by the third party. A Channel Mapping nonrecurring charge will apply for each channel mapped from the Telephone Company provided partial ring to the service provided by the third party. Channel mapping charges do not apply when ordering channels that originate at and terminate to nodes on the Telephone Company's portion of the partial ring.

c. Connection to Partial Ring Service:
The Telephone Company's network design will define the optical parameters at the connection locations. The Telephone Company is responsible for the optical parameters of the high-speed optical signal at the location where its facilities are connected to the facilities of the customer or of the third party. The Telephone Company bears no responsibility for the optical parameters beyond its location (i.e., in the facilities of the customer or of the third party). The customer or third party is responsible for engineering its portion of the jointly provided ring.

Connection to EDSS partial ring service is limited to high-speed fiber connection of the Telephone Company backbone network fiber optic facilities and the fiber optic facilities of the customer or of a third party. Partial ring service may only be connected to (1) another partial ring provided by the Telephone Company or (2) suitable ring facilities provided by the customer or third party. The portion of the ring provided by the customer or third party must use vendor equipment that matches the equipment used by the Telephone Company and must maintain the same vintage in software release as the Telephone Company. Upon written notice by the Telephone Company, the customer or third party will have sixty (60) days in which to complete the change out of any software release deployed by the Telephone Company.

Connection to EDSS partial ring services may occur at the customer premises at which location the connection will occur via a node or at a mutually agreed upon location where connection occurs via a high-speed interface. Connection to other Telephone Company services may not occur at the mutually agreed upon high-speed interface. Such location will be designated as a customer premises for the purpose of administering the general regulations set forth in this tariff. (N)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

1.7.4 Regulations

A. Continued

3. Ring-on-Ring

When EDSS is provided in a ring-on-ring design, the following applies:

a. The lower speed ring must have a minimum of two nodes located at the customer premises or one node at the customer premises and one node at the CO.

b. The Telephone Company must provide the lower speed nodes.

c. Each lower speed node must subtend off of its corresponding higher speed node.

4. Port Types

a. The type of ports that are supported on a node may limit the maximum number of ports that are provided on that node. Accepted port speeds are as follows:

Enhanced Nodes =	OC3	OC12	OC48	OC192
DS1 Ports	X	X	X	X
DS3 Ports	X	X	X	X
DS3 Transmux Ports	X	X	X	X
STS1 Ports	X	X	X	X
OC3 Ports		X	X	X
OC3c Ports		X	X	X
OC12 Ports			X	X
OC12c Ports			X	X
OC48 Ports				X
OC48c Ports				X
Ethernet Ports				
GigE-1 Ports		X	X	X
GigE-3 Ports		X	X	X
GigE-6 Ports		X	X	X
GigE-9 Ports		X	X	X
GigE-12 Ports			X	X
GigE-24 Ports			X	X

b. Changes in month-to-month ports are treated as disconnects and subsequent installations.

c. When high capacity services are provided between two EDSS rings, the associated ports must be symmetrical (e.g., DS1 Port to DS1 Port, DS3 Port to DS3 Port).

d. When a lower capacity service is dropped from an EDSS, the associated ports will be billed to the lower capacity service. Lower capacity services may not be dropped at locations utilizing a high-speed interface.

e. Ports may be ordered in a symmetrical arrangement (e.g., DS3 Port to DS3 Port), an asymmetrical arrangement (e.g., OC12 Port to DS3 Port) or in certain transmuxing arrangements as specified following. Ethernet ports may only be ordered in symmetrical arrangements. Ports are not provided where a high-speed interface is utilized.

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1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

1.7.4 Regulations

A. Continued

f. When transmuxing arrangements are ordered in symmetrical or asymmetrical port combinations, the following conditions apply:

- A DS1 port associated with a DS3 Transmux port may not coexist as a separate DS1 port with the same EDSS node.
- An end-to-end DS1 service provided over EDSS may not be associated with more than one DS3 Transmux port.
- DS3 Transmux ports are available at premises nodes or at CO nodes.
- The higher speed port of an asymmetrical port combination will be mapped based on the speed of the connecting service and port.

g. For all other asymmetrical port combinations, the following conditions apply:

- The higher speed port will be mapped based on the speed of the connecting service and port. The higher speed port is referred to as a Stub Hub Port in the arrangement.
- The Stub Hub Port is only available at a premises node.
- Stub Hub Ports are not provided on partial ring configurations.
- The lower speed port(s) can be provided at customer premises and CO nodes.

h. Asymmetrical ports are available in the following combinations:

	Node Speeds	Port Combinations
OC3 EDSS Ring	OC3 - OC3	STS1 - DS3
OC12 EDSS Ring	OC12 - OC12	STS1 - DS3 OC3 - DS3 OC3 - DS1 OC3 - STS1 DS3 - DS1
OC48 EDSS Ring	OC48 - OC48	DS3 - DS1 OC3 - DS3 OC3 - STS1 OC12 - DS3 OC12 - STS1 OC12 - OC3 OC12 - OC3c
OC192 EDSS Ring	OC192 - OC192	DS3 - DS1 STS1 - DS3 OC3 - DS3 OC3 - STS1 OC12 - DS3 OC12 - STS1 OC12 - OC3 OC12 - OC3c OC48 - DS3 OC48 - STS1 OC48 - OC3 OC48 - OC3c OC48 - OC12 OC48 - OC12c

(N)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

(N)

1.7.4	Regulations
A.	Continued
5.	**Interfaces** EDSS is only available for the following interface combinations: DS1 – DS1 DS1 – STS1 DS3 – DS3 DS3 – DS1 STS1 – STS1 OC3 – STS1 OC3 – OC3 OC3 w/DS3 mapping – DS3 OC3 w/DS1 mapping - DS1 STS1 w/DS3 mapping – DS3 STS1 w/DS1 mapping - DS1 OC3c – OC3c OC12 – STS1, DS3, OC3, OC3c & OC12 OC12c – OC12c OC48 - STS1, DS3, OC3, OC3c, OC12, OC12c & OC48 OC48c - OC48c Gigabit Ethernet GigE1 – GigE1 (mapped as 1 STS1 channel) GigE3 – GigE3 (mapped as 3 STS1 channels or 1 STS3c channel) GigE6 – GigE6 (mapped as 6 STS1 channels or 1 STS6c channel) GigE9 – GigE9 (mapped as 9 STS1 channels or 1 STS9c channel) GigE12 – GigE12 (mapped as 12 STS1 channels or 1 STS12c channel) GigE24 – GigE24 (mapped as 24 STS1 channels or 1 STS24c channel)
6.	**Mileage**
a.	EDSS Mileage on a full ring is the total of airline distances between nodes rounded up to the nearest mile.
b.	EDSS Mileage on a partial ring is the total of airline distances between connection locations and each node on the partial ring. The total mileage is then rounded up to the nearest mile.
c.	The mileage rate is based on total ring capacity and not on individual services between nodes. For example, the mileage charge for a four-node OC3 ring with 5.1 miles between each node (20.4 total miles) would be calculated by multiplying the OC3 mileage rate by 21 miles. This mileage calculation applies regardless of the number of services (e.g., DS3s) on the ring.

(N)

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1. Advanced Data Services (N)
1.7 Enhanced Dedicated SONET Service

1.7.4	Regulations
B.	**Commitment Period**
1.	EDSS is available for 3, 5 and 7-year commitment periods, for ports, nodes, mileage and high-speed interfaces. Ports are also available on a month-to-month basis. Ports and nodes added subsequent to the initial installation may be coterminous to the expiration date of the EDSS provided the addition is prior to the 21st month for a 3-year plan, prior to the 36th month for a 5-year plan, or prior to the 50th month for a 7-year plan. Ports and nodes added after the aforementioned periods require extending the commitment period for an additional one-year for a 3-year plan, an additional 2 years for a 5-year plan, or an additional 3 years for a 7-year plan. Ports in a month-to-month plan may be added at anytime. The added nodes must be at the same or lower speed as the existing nodes.
2.	Monthly recurring rates apply for the ports, nodes, mileage and high-speed interfaces. Once a term period expires, the prevailing rates of the current plan will continue until the customer cancels service or requests a new term plan.
3.	Nonrecurring charges for ports apply on a first and additional basis. To qualify as first and additional, the ports must be like-ports(e.g., 2 DS1 Ports) installed at the same node at the same time. Nonrecurring charges apply to the initial installation of ports purchased on a month-to-month basis, and to the subsequent installations of all ports and nodes.
C.	**Service Interruption**
1.	Credit Allowance Applies:
a.	EDSS is guaranteed service restoral within one minute in the event of a service interruption except as specified in 2 following. Any service interruption greater than one minute due solely to a Telephone Company facility failure will result in a credit allowance of 100% of the monthly rate for the applicable rate elements of the affected service, provided that the interruption is brought to the attention of the Telephone Company within 10 days. The total credit allowance in any one billing period cannot exceed 100% of the customer's monthly rate for the affected rate elements, regardless of the number or length of service interruptions within a billing month
2.	A Credit Allowance Does Not Apply For:
a.	Service interruptions of less than one minute.
b.	Service interruptions caused by the negligence of the customer or authorized user.
c.	Service interruptions resulting from the failure of equipment or systems provided by the customer or authorized user.
d.	Service interruptions during any period in which the Telephone Company is not afforded access to a premises for testing and/or repair of service.
e.	Service interruptions when the customer has released the service to the Telephone Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service, during the time that was negotiated with the customer prior to the release of that service. (N)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

1.7.4	Regulations
C.	Continued
f.	Service interruptions which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made begins on the seventh day after the customer receives the Telephone Company's notification of the need for replacement and ends on the day after the Telephone Company receives the customer's authorization for replacement.
g.	Service interruptions during periods when the customer elects not to release the service for testing and/or repair.

1.7.5	Customer Service Management Optional Feature (CSM)	
A.	CSM provides a customer with real-time information about the operational status of its EDSS network. Two (2) Service Levels of support are offered for CSM. Each Service Level provides different functionalities to which the customer may gain access. These functionalities are described following and include access to real-time information about the customer's EDSS network and the ability to generate reports. When ordering CSM, the customer must specify one of the following three Service Levels.	(C) (C)
1.	Level 1 - provides a network view of real-time detection and reporting of network alarm conditions within the customer's EDSS network.	
2.	Level 2 - provides the same capabilities described in Level 1 along with the ability for the customer to generate basic network performance reports for its EDSS network. The customer may also request network performance reports that are customized to meet their specific needs.	(D)
		(D)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

1.7.5	Customer Service Management Optional Feature (CSM)	
		(D) (D)
B..	**Application of Rates and Charges** - CSM rates and charges are set forth in Part M, Section 4, Rates and Charges, unless noted otherwise. CSM rates and charges apply in addition to any applicable EDSS rates and charges. Unless otherwise indicated below, CSM rates and charges apply regardless of the Service Level selected by the customer.	(T)
1.	**Monthly Recurring Charges** - A CSM Service Level monthly recurring charge applies for each EDSS ring provided with CSM.	(D) (D)
2.	**Nonrecurring Charges** - Apply as follows:	
a.	A Node Setup charge applies for each node that is equipped with CSM at the time that CSM is initially established on the ring.	
b.	An Add/Remove Node charge applies for each node that is subsequently added to, or removed from, a ring that has already been equipped to provide CSM.	
c.	An Initial CSM Setup charge applies for establishment of the customer's initial CSM database partition. The initial CSM database partition includes setup for up to six (6) users.	
d.	A Setup of Additional Users charge applies for the setup of up to six (6) additional users beyond those provided with the initial database setup when CSM is initially established on the ring.	
e.	A Setup of Additional Partition or Change in CSM Service Level charge applies for the setup of an additional CSM database partition created for the same customer or to change from one CSM service level to another (e.g., change Service Level 1 to Service Level 2). Each additional CSM database provides for the setup of up to six (6) additional users.	(C)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

1.7.5	Customer Service Management Optional Feature (CSM)	
B.	(Continued)	(T)
f.	A Consultation and Support charge applies for each thirty (30) minutes or fraction thereof that the customer requests Telephone Company consultation and support of its CSM network. This charge does not apply during initial setup of CSM on the ring.	(D) (D)
C.	**Terms and Conditions**	(T)
1.	The customer must utilize Internet web access to connect its customer-provided terminal equipment to the Telephone Company's CSM management system. Access to the Internet and any associated rates and charges are the responsibility of the customer. The customer is also responsible for obtaining communications software that is compatible with the software the Telephone Company utilizes to provide CSM. The Telephone Company will work cooperatively with the customer to determine compatibility of its communications software.	
2.	CSM is provided only when the Telephone Company provides all nodes on the ring.	
3.	Subject to the restrictions set forth in Section 1.7.5.D.4. following, CSM is provided coincident with the installation of the associated EDSS ring or may be added to an existing ring.	
4.	CSM Service Level is provided under a term plan of 3 years, 5 years, or 7 years, as described following.	
a.	The duration of the term plan for CSM Service Level must be the same duration as the term plan for the EDSS nodes provided with CSM. At the expiration of its 3, 5, or 7 year term plans for CSM Service Levels, the customer has the option of extending CSM Service Level with a coterminous end date as described in Section 1.7.5.C.4.b. following.	(C) (C) (T)
b.	The expiration date of each CSM Service Level added subsequent to the initial installation must be coterminous to the expiration date of the associated EDSS service, provided that the addition is prior to the 21st month for a 3-year plan, prior to the 36th month for a 5-year plan, or prior to the 50th month for a 7-year plan. A CSM added after the aforementioned periods requires extension of the commitment period for the associated EDSS service in accordance with this Section (A) preceding. Such extension results in the establishment of a new plan that includes both the EDSS and the CSM under the same plan with the same expiration date.	

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

1.7.5	Customer Service Management Optional Feature (CSM)	
C.	(Continued)	(T)
5.	With Service Level 2 support, the customer may retrieve certain basic reports containing performance-monitoring information on its EDSS network, as designated and provided by the Telephone Company. Basic reports are available at no additional charge to the customer. The customer may also request that a report be customized to meet its particular needs. Rates and charges for customized reports are provided on a special assembly basis. Reports are not provided with Level 1 support.	(C)
6.	CSM is subject to termination liability if CSM is removed prior to completion of the existing commitment period. The terms and conditions in Section 1.7.6. following, as applicable, apply to removal of CSM prior to completion of the existing commitment period.	

1.7.6	Termination Liability	
A.	Termination liability applies to EDSS service or an Optional Feature, and is charged per rate element on all ports, nodes, mileage, high-speed interfaces and Optional Features, except month-to-month ports for which the one-month minimum service charge applies.	(N) (N)
B.	Termination liability will apply when the customer cancels service prior to expiration of the selected term, unless the exception conditions described below are met. If the cancellation occurs within the first two years of the term, termination liability is equal to 100 percent of the monthly charges for the unexpired portion of the first two years of the term, and 25 percent of the monthly charges for the remainder of the term. If the customer cancels after the first two years of service, then termination liability is equal to 25 percent of the monthly charges for the remainder of the term.	(T) (T)
C.	EDSS service or an Optional Feature may be canceled without termination liability when cancellation of the service occurs within thirty (30) days of the effective date of a Telephone Company initiated rate increase of eight percent (8%) or more on any rate applicable to EDSS service.	(T)(N)
D.	Termination liability will not apply on an EDSS service or Optional Feature if a customer changes to a longer-term commitment period, and the number of services or ports included in the new commitment period remains the same or increase	(T)(N)
E.	Termination liability will not apply to a customer upgrade (change to a higher capacity EDSS service) of an EDSS node or port, if all of the following conditions are met:	(T)
1.	A new Telephone Company commitment period commences with the upgrade.	(T)
2.	The new expiration date must extend beyond the discontinued plan date.	(D)
		(D)

1. Advanced Data Services
1.7 Enhanced Dedicated SONET Service

1.7.6	Termination Liability	
E.	**Continued**	
3.	The new EDSS service is provided at the same customer and/or Telephone Company location(s) as the discontinued service plan.	
4.	Additional nodes and ports added at the time of the upgrade or thereafter incur all applicable rates and charges.	
5.	The Company provides both the existing and the new service via tariff or on an individual case basis (ICB).	
F.	Customer can move a node from one location to another location without incurring termination liability providing that all of the following conditions are met:	
1.	A new Telephone Company commitment period commences with the move.	
2.	The new expiration date must extend beyond the discontinued plan date.	
3.	The customer accepts a temporary interruption of the existing service in order to establish the new service.	
4.	The new service is ordered at the same time as the service being disconnected.	
G.	For EDSS with a commitment period which was extended under 1.7.6 following, termination liability is calculated as the difference between the monthly rates for the highest commitment period that could have been satisfied prior to disconnection of the service or cancellation of the plan and the monthly rates for the extended commitment period for the period of time the service was in effect.	(T)
H.	Customers who wish to move or convert existing High Capacity services to an EDSS may do so without conversion charges (termination liability and installation charges) as long as the total capacity of service purchased by the customer does not decrease.	

1.7.7	Extension of a Commitment Period
A.	For EDSS, the customer also has the option, within sixty (60) days prior to the expiration date for its commitment period, to extend its expiring term plan to a plan with a longer commitment period. The commitment period selected for the extended plan must be longer than the commitment period of the expiring plan as follows: ▪ An expiring 3-Year Term may be extended to either a 5-Year or 7-Year Term Plan. ▪ An expiring 5-Year Term may be extended to a 7-Year Term Plan.
B.	Time-in-service credit on the expiring plan will be granted and applied towards the new extended plan. For example, an expiring 3-Year term plan will allow for 3 years of time-in-service credit towards a 5-Year or 7-Year extended plan.
C.	The discount percentage associated with the extended plan will apply effective with the first bill date following expiration of the commitment period for the existing plan and will continue through the remainder of the commitment period associated with the extended plan. No adjustment for the increased discount percentage associated with the extended plan will be made to the monthly rates already billed on the expiring plan.

1. Advanced Data Services
1.8 SONET Point-to-Point Service (N)

1.8.1	General
A.	SONET Point-to-Point Service (SPTP) provides high speed, synchronous optical fiber-based, full duplex data transmission capabilities. SPTP is provisioned over the Telephone Company's SONET network and provides customers with SONET based broadband transport with the following capabilities.
	OC3, OC3c or STM – 1 Transmission services operating at the bit rate of 155.52 Mbps.
	OC12, OC12c Transmission services operating at the bit rate of 622.08 Mbps.
	OC48, OC48c Transmission services operating at the bit rate of 2.488 Gbps.

1.8.2	Service Description
A.	SPTP provides transport at the optical level between a customer's locations or between a customer's premises and a Telephone Company wire center, where it connects with another service of equal speed. SPTP is transported over a shared network infrastructure and remains optical throughout the path. Depending on the service rate (payloads consisting of 3, 12, or 48 separate Synchronous Transport Signals (STS1s) with OC3, 12, or 48), separate overheads are transported. SPTP service is also offered in a concatenated format (one single channel with one single overhead) at service rates of OC3c, OC12c, and OC48c. The same payload content is maintained throughout the service (i.e. if DS1s are mapped by the customer at one end, DS1s must be mapped at the other end of the service). SONET equipment is required throughout the circuit.
B.	The service is available at month-to-month, and 3-year and 5-year term pricing plans. A 12-month minimum billing period applies. Month-to-month, 3-year and 5-year term pricing plan rates are not fixed and will vary based upon the rates in effect in the tariff.
C.	Monthly rate elements consist of Local Distribution Channels and Channel Mileage, fixed and variable.
D.	The technical specifications for SPTP service are delineated in Technical Reference GR-253-CORE, Issue 3. When provided with Synchronous Transport Module (STM-1) transmission, the technical specifications are delineated in Technical References ITU G707, ITU G708 and ITU G709.
E.	SPTP services may be configured as follows: OC3 — 3 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are Virtual Tributary (VT) mapped - an STS1 channel without constraint to payload mapping OC3c — A single concatenated STS3c channel STM1 — Synchronous Digital Hierarchy (SDH) channel of 155.52 Mbps OC12 — 12 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are VT mapped - an STS1 channel without constraint to payload mapping (N)

1. Advanced Data Services
1.8 SONET Point-to-Point Service (N)

1.8.2	Service Description	
E.	(Cont'd)	
	OC12c	A single concatenated STS12c channel
	OC48	48 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are VT mapped - an STS1 channel without constraint to payload mapping; or 16 separate concatenated STS3c channels; or 4 separate concatenated STS12c channels; or any combination of the above configurations up to the total OC48 capacity
	OC48c	A single concatenated STS48c channel

1.8.3	Regulation
A.	All rate elements associated with an SPTP service that is provided on a point-to-point basis between customer designated premises must be in the same rate plan.
B.	When SPTP is ordered with STM transmission, both of the customer-designated premises must use STM transmission.
C.	SPTP is deployed upon customer request, and is available based on negotiated installation intervals. Where suitable SONET facilities are not available, special construction rates and charges may apply.
D.	The customer must provide, at no cost to the Telephone Company, suitable and secure space, suitable environmental conditions and uninterrupted power supply, building entrance facilities and conduit for placement of the facilities and network equipment at its locations as necessary to provide the service.
E.	SPTP services, which are provided on a month-to-month basis, are subject to a one-year minimum service requirement. If service is disconnected during the first year, the minimum period charge is 100% of the monthly rate from the date of disconnection through the end of the first year.
F.	SPTP services which are provided under 3-year or 5-year term plans are subject to termination liability if service is disconnected prior to the end of the term plan.
G.	**Termination Liability**
1.	If the disconnect occurs during the first year of service, termination liability is calculated at 100% of the monthly charges for the unexpired portion of the first year, and at 15% of the monthly charges for the remainder of the term plan.
2.	If the disconnect occurs after the first year of service, termination liability is calculated at 15% of the monthly charges from the date of disconnection through the remainder of the term plan. (N)

1. Advanced Data Services
1.8 SONET Point-to-Point Service (N)

1.8.3	Regulation
G.	(Cont'd)
3.	Termination liability will not apply:
a.	When cancellation of the SPTP service occurs within thirty-days of the effective date of a Telephone Company initiated rate increase and the customer's total monthly rate for the affected service increased by 8% or more;
b.	When the service is changed to a longer SPTP term plan;
c.	When the service is changed to an SPTP service of a higher bit rate with a new, equal or longer, term plan; or,
d.	When the service is converted to Enhanced Dedicated SONET Service.
H.	**Expiration**– At the expiration of a 3-year or 5-year term plan, the rates for the expiring term plan will continue until the customer either cancels service or orders a new plan.
I.	A change in port or channel termination will be treated as a discontinuance of the existing service and an installation of a new service. All associated nonrecurring charges will apply for the new service. A new minimum period will be established for the new service. The customer will also be responsible for all outstanding minimum service period obligations associated with the disconnected service.
J.	**Credit Allowance**
1.	Any single service outage of four hours or more due solely to a Telephone Company facility failure will result in a credit of 100% of the monthly rate for the applicable rate elements affected, provided that the interruption is brought to the attention of the Telephone Company within 10 days. The total credit allowance in any one billing period cannot exceed 100% of the customer's monthly rate for the affected rate elements, regardless of the number or length of service interruptions within a billing month.
2.	When credit allowance does not apply for:
a.	Service interruptions of less than four hours;
b.	Service interruptions caused by the negligence of the customer or authorized user;
c.	Service interruptions resulting from the failure of equipment or systems provided by the customer or authorized user;
d.	Service interruptions during any period in which the Telephone Company is not afforded access to premises for testing and/or repair of service;
e.	Service interruptions when the customer has released the service to the Telephone Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer prior to the release of that service;
f.	Service interruptions that continue due to the failure of the customer to authorize replacement of an element of special construction; or
g.	Service interruptions during periods when the customer elects not to release the service for testing and/or repair.

(N)

1. Advanced Data Services
1.8 SONET Point-to-Point Service (N)

1.8.4	Application of Rates and Charges
A.	**Monthly Recurring Charges**– Apply to Local Distribution Channels (LDCs) and Channel Mileage (Fixed and Per Mile) rate elements.
1.	**Local Distribution Channels**– The LDC rate element combines the Channel Termination and port (protected or nonprotected) to provide the single LDC Charge. LDCs apply to that portion of the SONET Point-to-Point Service connecting two specific customer locations or connecting a customer location to the Telephone Company's serving wire center. Typically, a LDC is found at each end point.
2.	**Channel Mileage**–. The calculation of this charge is based on a fixed mileage component and per airline miles between two serving wire centers.
B.	**Nonrecurring Charges**– Apply to Local Distribution Channels (LDCs) only. (N)

1. Reserved for Future Use

1. Reserved for Future Use

1. Reserved for Future Use