FRONTIER SOUTHWEST INCORPORATED
d/b/a
FRONTIER COMMUNICATIONS OF TEXAS

OUT-OF-FRANCHISE SERVICE

PRODUCT GUIDE

Effective August 24, 2026, all services subject to this Product Guide that are provided to any location in this state wholly or in part over copper facilities, other than for Lifeline-eligible customers, are no longer available for new purchase by any customers. Effective November 16th, 2026, all services subject to this Product Guide that are provided to any location in this state wholly or in part over copper facilities, other than for Lifeline-eligible customers, are discontinued, subject to a reasonable period for existing customers to transition off the services. (N) (N)

TABLE OF CONTENTS

Page

Section A –

Title Page 1

Table of Contents 2

Product Guide Format 4

Explanation of Symbols 5

Application of Product Guide 6

Section 1 - Definition of Terms and Abbreviations 1

Section 2 - Regulations 1

2.1 - Undertaking of the Carrier 1
2.2 - Limitations on Service 1
2.3 - Limitations on Liabilities 2
2.4 - Discontinuance or Interruption of Service by Carrier 4
2.5 - Cancellation or Termination of Service by Customer 5
2.6 - Restoration of Service 6
2.7 - Payment and Billing 6
2.8 - Deposits 7
2.9 - Taxes/Fees 7
2.10 - Credit Allowances for Interruptions 9
2.11 - Application for Service/Changed or Canceled Orders 9
2.12 - Obligations of Customer 10
2.13 - Mileage Calculation 11
2.14 - Labor 12
2.15 - Texas Universal Service Fund Charge 13

TABLE OF CONTENTS (Continued)

Page

Section 3 – Service Charges 1

3.1 Ordering Charges 1
3.2 Moves 3
3.3 Return Check Charge 4
3.4 Telephone Number Change 4

Section 4 – Calling Services 1

4.1 General 1
4.2 Touch Calling 1

Section 5 – Miscellaneous Services 1

5.1 General 1
5.2 Reserved Telephone Number 1

Section 6 - Contract Service Arrangements and Promotions 1

6.1 Contract Service Arrangements 1
6.2 Promotions 1

Section 7 – Individual Contracts 1

Section 8 – Facilities For Telecommunications Services 1

8.1 Ordering Options for Telecommunications Services 2
8.1.1 General 2
8.1.2 Telecommunications Service Request (TSR)/Access Service Request (ASR) 3
8.2 Special Access 9
8.3 Optical Networking 17
8.4 Asynchronous Transfer Mode (ATM) Service 40
8.5 Frame Relay Service 54
8.6 Transport LAN Service (TLS) 73

Section 9 – Carrier Common Line and Switched Access

9.1 Carrier Common Line 1
9.2 Switched Access 11

PRODUCT GUIDE FORMAT

A. **Page Numbering** - Page numbers appear in the upper right corner of the page. Pages are numbered sequentially. However, new pages are occasionally added to the product guide. When a new page is added between pages already in effect, a decimal is added. For example, a new page added between pages 14 and 15 would be 14.1.

B. **Page Revision Numbers** - Revision numbers also appear in the upper right corner of each page.

C. **Paragraph Numbering Sequence** - There are nine levels of paragraph coding. Each level of coding is subservient to its next higher level:

2
2.1
2.1.1
2.1.1.A
2.1.1.A.1
2.1.1.A.1.(a)
2.1.1.A.1.(a).I
2.1.1.A.1.(a).I.(i)
2.1.1.A.1.(a).I.(i)(1)

EXPLANATION OF SYMBOLS

Changes to this product guide shall be identified on the revised page(s) through the use of symbols. The following symbols will be used for the purposes indicated below:

(C) - Change in regulation

(D) - Discontinued rate, regulation or text

(E) - Correction of an error

(I) - Increase in rate

(M) - Moved material from one page to another without change

(N) - New

(R) - Reduction in rate

(T) - Text change but no change in rate or regulation

APPLICATION OF PRODUCT GUIDE

This product guide contains the regulations, rates and charges applicable to the provision of out-of-franchise telecommunications services by Frontier Southwest Incorporated d/b/a Frontier Communications of Texas for the use of Customers transmitting messages within the State of Texas.

This product guide is available for review online at http://www.frontier.com/tariffs.

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SECTION 1 - DEFINITION OF TERMS AND ABBREVIATIONS

Acceptance and Confirmation - A written acknowledgment to customer that an Application for Service has been accepted by Frontier Southwest Incorporated.

Application for Service - Customer request in the form of standard order that provides applicable service description, technical data and pertinent information that allows Carrier to design the network facilities for a customer and its authorized users.

Bandwidth - Term denotes in Hertz the approximate size of the channel or termination and represents the difference between the highest and lowest frequencies of a band.

Carrier – Frontier Southwest Incorporated.

Certificated Telecommunications Provider (CTP) – A provider of telecommunications services that has been granted either a certificate of convenience and necessity (CCN), a Certificate of Operating Authority (COA) or a Service Provider Certificate of Operating Authority (SPCOA) by the Commission.

Channel - Electrical transmission path for two-way communications.

SECTION 1 - DEFINITION OF TERMS AND ABBREVIATIONS (Continued)

Commission - The Public Utility Commission of Texas.

Contract Service Arrangement - Agreement in which Carrier provides services under specific terms and conditions of this product guide.

Customer - The company, individual, or other entity which orders or uses service and is therefore responsible for the payment of charges due and for compliance with Carrier's product guide regulations.

Customer Designated Location (CDL) – A location specified by the customer for the purpose of terminating telecommunications services provided by the Carrier. The Carrier must have access to the location to perform installation, testing, and maintenance functions.

Customer Premises - The customer or user's premises, including customer designated non-Carrier premises.

Data - Information represented as characters in digital or analog form to which meaning can be assigned.

Digital Transmission - Information transmitted using digitally encoded signals.

DS-0 - Facilities that provide for the two-way transmission of isochronous bipolar serial data at a rate of 56/64 Kbps. The particular speed available is dependent on availability of facilities.

DS-1 - Facilities that provide for the two-way transmission of isochronous bipolar serial data at a rate of 1.544 Mbps.

DS-3 – Facilities that provide for the two-way transmission of isochronous bipolar serial data at a rate of 44.736 Mbps.

Facility (or Facilities) - Any item or items of communications plant or equipment used to provide or to connect to specialized services.

Initial Period - The minimum unit of time for which a rate is charged for a connection between given points.

IXC - IntereXchange Carrier. A provider of inter-LATA voice and data services.

ISP - Internet Service Provider. A provider of access to the Internet and the World Wide Web.

SECTION 1 - DEFINITION OF TERMS AND ABBREVIATIONS (Continued)

Inter Office Channel - A private line service element that connect two central offices or points of presence.

Local Access and Transport Area (LATA) - A defined geographic area for the provision and administration of communications service. It encompasses designated access areas which are grouped to serve common social, economic, and other purposes.

Main Billed Account - The customer name, address and account number to which charges are billed.

MRC - Monthly Recurring Charge.

Multipoint - Private line service that connects three or more central offices.

NRC - Non-Recurring Charge.

Office Connection - Private line service element that interconnects channels and other service elements to a central office, including access connections and function connections.

Operator - An automated or live operator.

Operator Services Provider – A provider of automated or live operator related service, such as, but not limited to, credit card calling, operator assistance, third party, collect or dialing assistance, and directory assistance.

Optical Carrier Rate (OC-N) – The term "OC-N" denotes an Optical Networking transmission signal, speed, line rate, or service and may be commonly referred to as follows:

OC-N Rate Bandwidth Capacity
OC-1 51.84 Mbps
OC-3 155.52 Mbps
OC-12 622.08 Mbps
OC-24 1.25 Gbps
OC-48 2.488 Gbps

SAL (Special Access Line) - Provides the transmission facilities between a customer designated location (CDL) and the Company's serving wire center.

Service - Any or all service(s) provided by Carrier pursuant to this product guide.

Service Period - Period from service date to customer requested end date.

Serving Wire Center - Denotes the physical location within a Service Wire Center area used to determine mileage sensitive rates.

SECTION 2 - REGULATIONS

2.1 Undertaking of the Carrier

2.1.1 Service is furnished for telecommunications originating and terminating within the State under the terms and conditions of this product guide.

2.1.2 Carrier shall operate and maintain service provided hereunder in accordance with the terms and conditions set forth in this product guide.

2.1.3 Carrier may own telecommunications facilities within the State or resell telecommunications services provided by other carriers. Notwithstanding the foregoing, Customer shall be considered a customer of Carrier, and not a customer of any other carrier.

2.1.4 Service is available twenty-four (24) hours per day, seven (7) days per week.

2.2 Limitations on Service

2.2.1 Service is offered subject to the availability of the necessary facilities and subject to the provisions of this product guide. The obligation of the Carrier to provide service is dependent upon its ability to procure, construct, and maintain facilities which are required to meet the Customer's order for service. The Carrier will make all reasonable efforts to secure the necessary facilities, providing such new service will not adversely affect the Carrier's present services.

2.2.2 Carrier reserves the right to discontinue furnishing Service, or to limit the use of Service, when necessitated by conditions beyond its control, when Customer is using Service in violation of the law or in violation of the provisions of this product guide, or for non-payment by Customer.

2.2.3 Service provided under this product guide is directly controlled by Carrier, and Customer may not transfer or assign the use of Service, except with the consent of Carrier. In the event of such transfer or assignment, all regulations and conditions contained in this product guide, as well as all conditions for service, shall apply to the assignee(s) or transferee(s).

2.2.4 Service may not be used for any unlawful purpose.

SECTION 2 - REGULATIONS (Continued)

2.3 Limitations on Liabilities

2.3.1 Except as stated elsewhere in this product guide, Carrier shall not be liable for any damages arising out of mistakes, omissions, interruptions, delays, errors, or defects in transmission occurring in the course of furnishing service, and not caused by mistakes or errors of Customer. No liability shall commence prior to activation of service. Carrier's failure to provide or maintain Service under this product guide shall be excused by labor difficulties, governmental orders, civil commotions, acts of God, and other circumstances beyond Carrier's reasonable control. In no event shall such liability exceed the charges assessed the Customer under this product guide.

2.3.2 Carrier shall not be liable for, and Customer indemnifies and holds Carrier harmless from, any and all losses, claims, demands, suits or other actions, or any liability whatsoever, whether suffered, made instituted or asserted by Customer or by any other party, for any loss of Customer or other, or for libel, slander, invasion of privacy, or infringement of copyrights or patents, or for any other causes, caused or claimed to have been caused directly or indirectly by the operation, failure to operate, maintenance, or use of its Service, provided that such occurrence is not the result of Carrier's willful misconduct. No agents or employees of others shall be deemed to be agents or employees of Carrier.

2.3.3 Carrier shall not be liable for any damages, including usage charges, that Customer may incur as a result of the unauthorized use of Service by others. The Customer shall be fully liable for all such usage charges.

2.3.4 Except as stated in this Section, Carrier shall have no liability for damages, including, without limitation, direct, consequential, special, incidental or indirect damages, arising out of or related to events, acts, rights or privileges contemplated in this product guide. This product guide does not limit the liability of Carrier for willful misconduct.

2.3.5 Carrier shall not be liable for any act or omission of any other entity furnishing to Customer equipment, facilities or service used with the service furnished in this product guide; nor shall Carrier be liable for any damages or losses due to the failure or negligence of Customer for due to the failure of Customer-provided equipment or facilities.

2.3.6 Carrier shall not be liable for any act or omission of any other entity furnishing facilities or service to Carrier, which are necessary for the provision of service under this product guide.

2.3.7 Carrier is not liable for unavoidable damages to the subscriber's premises resulting from attachment of its equipment and associated wiring on such premises, or from the installation or removal thereof. Customer shall indemnify and save harmless Carrier from any claims of the owner of Customer's premises or other third party claims for such damages.

SECTION 2 - REGULATIONS (Continued)

2.3 Limitations on Liabilities (Continued)

2.3.8 Carrier shall allow for errors or omissions in alphabetical telephone directories (excluding the use of bold face type) an amount within the following limits:

A. For listings in alphabetical telephone directories furnished without additional charge, an amount not in excess of the minimum monthly charge to Customer for exchange service during the effective life of the directory in which the error or omission occurred.

B. For listing and lines of information in alphabetical telephone directories furnished at additional charge set forth in Carrier's Schedules, an amount not in excess of the charge for that listing or line of information during the effective life of the directory in which the error or omission occurred.

C. For listings in information records furnished without additional charge, an amount not in excess of the minimum monthly charge to Customer for exchange service during the effective life of the directory in which the error or omission occurred.

D. For listings in information furnished at additional charge, an amount not in excess of the charge for the listing during the period the error or omission occurred.

E. For listings in telephone directories furnished in connection with mobile telephone service, an amount not in excess of the guarantee and fixed charges for the service during the effective life of the directory in which the error or omission occurred.

2.3.9 Errors in Information Furnished by Directory Assistance Operators

Carrier shall not be liable for any errors in telephone numbers or other information furnished by Customer's choice of operator services provider.

SECTION 2 - REGULATIONS (Continued)

2.4 Discontinuance or Interruption of Service by Carrier

Without incurring any liability, Carrier may under the following conditions discontinue or interrupt Service that is being furnished.

2.4.1 For noncompliance with or violation of any applicable State, municipal or Federal law, ordinance or regulation or noncompliance with or violation of any Commission regulation

2.4.2 For noncompliance with any of the provisions of this product guide governing service.

2.4.3 In the event of Customer's use of service in such a manner as to adversely affect Carrier's equipment or Service to others.

2.4.4 In the event of unauthorized or fraudulent use of service.

2.4.5 By reason of any order or decision of a court or other government authority having jurisdiction that prohibits Carrier from furnishing service to Customer.

2.4.6 In order to perform tests and inspections necessary to insure compliance with product guide regulations or the proper installation, operation, and maintenance of Carrier's equipment and facilities.

2.4.7 Carrier shall not be liable to Customer for any damages for service interruption pursuant to this Section.

2.4.8 Carrier reserves the right to limit the duration of connection when necessary because of a shortage of service components caused by emergency conditions.

2.4.9 Carrier may suspend service without notice if it deems such action necessary to protect the public, Carrier personnel, agents, suppliers, facilities or services from damages or injury of any kind. Carrier may suspend service after notice to subscriber of noncompliance with nay provision of this product guide if such noncompliance is not corrected within thirty days following the receipt of notice.

2.4.10 Carrier may, upon written notice, immediately discontinue service for non-payment of any sum due the Carrier for more than 30 days beyond the rendition of the bill for such service without incurring any liability.

SECTION 2 - REGULATIONS (Continued)

2.5 Cancellation or Termination of Service by Customer

2.5.1 Customer may, at its option, cancel or terminate the use of service at any time subject to applicable Termination Liability.

2.5.2 Termination Liability -

A In the event the service is terminated by the customer prior to completion of the initial term commitment period, the customer shall be liable for an early termination charge, except as noted below or unless otherwise specified in the contract between Carrier and Customer. 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 # of Months Remaining = Termination Charge.

B 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, the customer may terminate service without incurring an early termination charge.

C Renewal Options

1. Prior to the end of the term commitment period, the customer may:

   a) Renew their term commitment,

   b) Commit to a new term period,

   c) Change service, or

   d) Discontinue service.

2. In the event the customer does not select one of the above renewal options, the customer will be converted to the shortest-term period available under product guide (i.e., month-to-month, one year, etc.) for the same service. If the customer is converted in this way, an early termination charge will not apply should the customer subsequently discontinue service.

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

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

2. Customer moves existing service to a new location where the service is unavailable;

SECTION 2 - REGULATIONS (Continued)

2.5 Cancellation or Termination of Service by Customer

2.5.2 Termination Liability (Continued)

D Early termination charges will not be assessed under the following circumstances: (Cont'd)

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

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

   a) The value of the new term commitment is of equal or greater monetary value than the initial term commitment,

   b) The Company or its affiliates, provides the new service via tariff, similar documents, or commercial agreements, 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 or its affiliates at the same time.

SECTION 2 - REGULATIONS (Continued)

2.6 Restoration of Service

The use and restoration of Service shall in all cases be in accordance with the priority system specified in Part 64, Subpart D, of the Rules and Regulations of the Federal Communications Commission.

2.7 Payment and Billing

2.7.1 **A** If notice from Customer of a dispute as to charges is not reported to a customer service representative or received in writing by Carrier within thirty (30) days after the date the charges are incurred, the billing will be considered correct.

B Customers have at least 22 days after the billing date to remit payment without penalty or termination. Termination of service requires prior written notice.

2.7.2 Carrier shall promptly investigate all disputed charges and shall report its findings and disposition to Customer.

2.7.3 Customer is responsible for payment of all charges for services furnished, including charges for services originated or charges accepted at Customer's station and for charges billed Customer for calling card messages. Upon nonpayment of any sum due or upon a violation of any of the conditions governing the furnishing of service, Carrier may discontinue furnishing said service without incurring any liability.

2.7.4 The charges for calls are due upon presentation of the bill and are billed and collected by Carrier or its agent.

2.7.5 Monthly Charges

A Monthly charges may be billed a month in advance of service or in the current month and reflect the rates in effect as of the date of the invoice. Customer's invoice may contain charges from previous periods for service provided from the date of installation through the current invoice period or to reflect changes in rates.

B Monthly charges for all access service components billed by Carrier are billed in advance of service and reflect the rates in effect as of the date of the invoice. Customer's first invoice may contain charges from previous periods for service provided from the date of installation through the current invoice period.

C For the purpose of computing partial month charges, a month is considered to consist of thirty days.

SECTION 2 - REGULATIONS (Continued)

2.7 Payment and Billing (Continued)

2.7.6 Customer shall be responsible for the payment of all charges for service provided under this product guide, including unauthorized charges placed from its equipment. Customer shall be responsible for the payment of all excise, sales, use or other similar taxes that may be levied by a governing body or bodies in conjunction with or as a result of the service furnished under this product guide.

2.7.7 Carrier requires a minimum service commitment of 90 days, unless specified otherwise.

2.7.8 There will be a $25.00 charge for returned checks.

2.8 Deposits

2.8.1 General

Carrier may require Customer without an established credit history to pay a sum up to an amount equal to twice the estimated average monthly charges as a deposit. Such deposit will be held as a guarantee of the payment of charges provided for herein. The fact that a deposit has been made in no way relieves Customer from complying with the prompt payment of bills on presentation. At such time as the service is terminated, the amount of the deposit will be credited to Customer's account and any credit balance which may remain will be refunded. Such a deposit may be refunded or credited to Customer at any time prior to termination of the service at the option of Carrier.

2.8.2 Credit Limits/Toll Usage Limits

When Customer’s credit history is not known, Carrier may perform a credit assessment. Carrier may set toll usage limitations on applicants for service and existing Customers whose financial condition cannot be verified or is otherwise unacceptable to Carrier. Any required deposit or toll usage limits may be increased or decreased by Carrier as it deems appropriate in light of changing conditions.

2.9 Taxes/Fees

2.9.1 General

Service may be subject to state and/or local taxes at the prevailing rates, if service originates and terminates in the State. Taxes are not included in the rates and charges listed herein.

Federal, state and local sales, use excise and other taxes, where applicable, shall be added to the charges contained herein, unless Customer provides a properly executed certificate of exemption from such taxes. It shall be the responsibility for Customer to pay these taxes and to accept the liability of any such unpaid taxes that may become applicable.

SECTION 2 - REGULATIONS (Continued)

2.9 Taxes/Fees (Continued)

2.9.2 Municipal Franchise Fees

Residential, non-residential and point-to-point access lines provided pursuant to this product guide are subject to a municipal franchise fee as established for the city in which the end user of the access lines is located. The monthly recurring municipal charge will be equal to a monthly amount developed using criteria as recommended by your local municipality with information supplied by this local certificated telecommunications provider (CTP). The fee should be assessed as a per-line-charge on the end user bill. This municipal charge results from implementation of House Bill 1777 – Telecommunications Franchise Law which allows all municipalities to be compensated by CTPs for right-of-way usage. The fee has been developed and/or allocated across rate classifications according to local municipal guidelines.

SECTION 2 - REGULATIONS (Continued)

2.10 Credit Allowances for Interruptions

2.10.1 Application – General

In the event a customer's service is interrupted other than by a disaster, trouble caused by customer-provided equipment, or by the negligence or willful act of the customer, and it remains out of order for twenty-four (24) hours or longer after access to the premises is made available after being reported to be out of order, appropriate adjustments or refunds shall be made to the customer. In the event the customer's service is interrupted by natural or other disaster beyond the control of the Carrier, adjustment or refunds shall be made to customers affected, if service is not restored within 24 hours after access to the premises is made available. The amount of adjustment or refund shall be determined on the basis of the known period of interruption, generally beginning from the time the service interruption is first reported. The refund to the customer shall be the pro rata part of the month's charges for the period of days and that portion of the service and facilities rendered useless or inoperative. The refund may be accomplished by a credit on a subsequent bill for service.

2.10.2 Private Line Service

Customer will receive a credit for downtime greater than 30 minutes. Network downtime is calculated in minutes, and subtracted from total monthly minutes. Monthly minutes are determined by multiplying the number of days in a month by 1,440. Network downtime is defined as the number of minutes from a Customer reported outage, not determined to be the fault of the customer, until the customer accepted cleared outage report. The percentage figure obtained by dividing the number of minutes of total network availability by the total monthly minutes is used to determine monthly network availability.

2.11 Application for Service/Changed or Canceled Orders

2.11.1 Carrier will charge for cancellation and change orders prior to the establishment of service. The amount of the charge will vary according to the status of the service order and the stage when cancellation occurred. In addition to any cancellation charge imposed by the Carrier, Customer will also be responsible for any charges incurred by Carrier which are imposed by a local access service provider for cancellation of an access service order.

2.11.2 Customer may change an application for service upon written notice to Carrier, subject to acceptance and confirmation by Carrier. A charge shall apply to any change when the request is received by Carrier after notification by Carrier of the acceptance and confirmation. The charge will include the sum of the charges and costs incurred by Carrier for the service involved, including direct and indirect costs.

SECTION 2 - REGULATIONS (Continued)

2.12 Obligations of Customer

2.12.1 Customer shall be responsible for the payment of all charges for service provided under this product guide, and of payment of all excise, sales, use or other similar taxes that may be levied by a governing body or bodies in conjunction with or as a result of the service furnished under this product guide.

2.12.2 Customer shall notify Carrier of any interruption in service. Before giving notice, Customer shall ascertain that the trouble is not being caused by action or omission of the subscriber, not within his control or is not in wiring or equipment annexed to Carrier's terminal.

2.12.3 Customer shall comply with minimum protective criteria, as may be prescribed by Carrier to protect equipment and facilities.

2.12.4 Customer shall be responsible for ensuring Customer-provided signals will not result in interference with any of the services provided by Carrier. All signals must be of the proper type, bandwidth and other technical parameters, so as not to damage Carrier's equipment or degrade service to other subscribers. It shall be the subscriber's responsibility to provide adequate electrical power, wiring and electrical outlets necessary for the proper operation of Carrier's equipment on their premise.

2.12.5 Equipment and facilities connected to those of Carrier shall be constructed, operated, and maintained by those providing same so as to work satisfactorily with Carrier's service. Such equipment and facilities shall be suitable to avoid hazard or damage to Carrier's plant or of injury to Carrier's employees or to the public because of the character or location of such equipment or facilities and sources of power to which it is connected.

2.12.6 Upon notice from Carrier that the equipment or facilities of Customer, or of others so authorized to be connected, is causing or is likely to cause hazard or interference, Customer, or others so authorized to be connected, shall make such changes as may be necessary to remove or prevent such hazard or interference.

2.12.7 Customer shall be liable for reimbursing Carrier for all loss or damage from theft, fire, flood, or other catastrophes, and negligence and willful acts of Customer's officers, employees, agents or contractors Carrier provided equipment or facilities on Customer's premises.

SECTION 2 - REGULATIONS (Continued)

2.12 Obligations of Customer (Continued)

2.12.8 Customer shall be responsible for obtaining all necessary permits, licenses, variances and other authorizations required by the state and local authorities for installation and operation of Customer provided equipment or facilities for connection with Carrier's equipment or facilities.

2.12.9 Customer shall make available entry to its premises for Carriers' employees, agents or contractors at any reasonable hour for the purpose of installing, inspecting, or repairing equipment or service, or, upon termination of service, removing the Carrier's equipment.

2.12.10 No Customer or authorized user may assign or delegate its responsibilities, duties, rights or obligations under this product guide to any person, corporation, or other entity without the express, written approval of Carrier; provided, however, that Customer may, without Carrier's approval, assign or delegate such responsibilities, duties, rights, or obligations to any subsidiary or affiliated organization or to any successor organization.

2.12.11 Customer is responsible for fault trouble-shooting and isolation of premises equipment and transmission signals and quality. Customer shall be liable to Carrier for the payment of a service charge for trouble-shooting and fault isolation for costs resulting from Carrier identification of Customer equipment malfunction that was reported by Customer as a service error, or fault, or where Customer's equipment malfunction created a degradation of network facilities or service regardless of who identifies the trouble.

2.13 Mileage Calculation

2.13.1 Mileage between Carrier's POPs where services are offered is calculated based on V and H (V&H) coordinates as obtained by reference to NECA Tariff F.C.C. No. 4. Not all services are available from all POPs.

2.13.2 The airline mileage between Carrier network terminal offices is calculated as follows.

A. Obtain the V and H coordinates for each POP.

B. Obtain the difference between the V coordinates and between the H coordinates for each POP.

C. Square each difference from B, above.

D. Add the square of the V difference to the square of the H difference from C, above.

SECTION 2 - REGULATIONS (Continued)

2.13 Mileage Calculation (Continued)

2.13.2 (Continued)

E. Divide the sum of the squared numbers by 10. Round to the next higher whole number.

F. Obtain the square root of the number obtained in E, above. Round to the next higher whole number. This is the airline mileage figure.

G. If calculating quarter (1/4) miles, obtain the square root of the result obtained in F, above. This is the rate distance in miles. Fractional miles are rounded to the next higher quarter mile. The rate for each quarter mile is 25% of the rate per mile, rounded to the nearest cent.

H. Example:

	V	H
Abbeville, AL	7752	1993
Abernathy, TX	8546	4978

The difference between the V coordinates is 794.
The difference between the H coordinates is 2985.

Squaring each difference yields:
794 X 794 = 630,436
2985 X 2985 = 8,910,225

Adding the results equals 9,540,661.

Dividing by 10 equals 954,066.

The square root of 954,066 is 976.76302
Mileage = 977 or in 1/4 miles = 3908

2.14 Labor

When work requested requires that another carrier's employee, agent, or contractor perform work regarding Customer's service, charges incurred by Carrier will be passed on to Customer.

SECTION 2 – REGULATIONS (Continued)

2.15 Texas Universal Service Fund Charge

The purpose of the Texas Universal Service Fund (TX USF) is to implement a competitively neutral mechanism that enables all residents of the state to obtain telecommunications services.

The TX USF charge is for the recovery of the Carrier's TX USF assessment. The charge is assessed as a percentage applied against the customer's intrastate telecommunications services receipts. The TX USF charge applies to all retail services except Lifeline, Link Up and Tel-assistance customers.

The TX USF charge will change periodically due to assessment fund and revenue changes. The percent, as of August 1, 2022 is 24%. (T) (T)(I)

The TX USF charge will be identified on the retail customer's bill as "Texas Universal Service."

SECTION 3 – SERVICE CHARGES

3.1 Ordering Charges

Nonrecurring charges associated with the following activities.

3.1.1 Initial Ordering Charge

This charge applies on a per Service Request basis, for the following activities:

- Establish initial service.
- Move from one premises to another

3.1.2 Subsequent Ordering Charge

This charge applies on a per Service Request basis for modifications to an existing service. This would include activities such as:

- Additions of supplemental features.
- Changes to existing service.

3.1.3 Line Connection Charge

This charge applies for central office work, including testing and cross connect activities, necessary to execute a customer request for service. This charge is applied for each line so affected.

3.1.4 Premises Visit

This charge applies for any visit by Company personnel to the customer's premises, including cross connect locations outside of the serving central office, to perform work associated with the establishment of service or modifications to existing service.

3.1.5 Charges

	NRC
Initial Ordering Charge, each	$ 31.50
Subsequent Ordering Charge, each	$ 13.50
Line Connection Charge, each	$ 20.00
Premises Visit Charge, each	$ 9.00

SECTION 3 – SERVICE CHARGES (Continued)

3.1 Ordering Charges (Cont'd)

3.1.6 Requests for Expedition

Customer may request an expedited service date. Company will provide an estimate of the charges to Customer. Customer must accept the price estimate prior to Company performing the expedite. The actual charges billed to Customer will be no more than 10 percent over the estimate.

SECTION 3 – SERVICE CHARGES (Continued)

3.2 Moves

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

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

3.2.1 Same CDL

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

3.2.2 Different CDL

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

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

- A change Service Request will be required.
- Subsequent Ordering Charge will apply plus the appropriate service installation charge for the service termination(s) affected.

SECTION 3 – SERVICE CHARGES (Continued)

3.3 Return Check Charge

This charge applies for each check returned by the bank resulting in non-pay of amount owed.

3.3.1 Charge

	NRC	
Return Check Charge, each	$25.00	(I)

3.4 Telephone Number Change

This charge applies for each telephone number requested to be changed.

3.4.1 Charge

	NRC
Telephone Number Change, each number	$20.00

SECTION 4 – CALLING SERVICES

4.1 General

Calling Services are furnished subject to availability of facilities and central office capability. Calling Services are subject to the limitations of the equipment required to provide the services.

Calling Services are offered on an individual service basis but may be provided in a package of services.

4.2 Touch Calling

4.2.1 Description

Touch Calling Service provides for the organization of telephone calls through the use of telephones equipped with tone generators used to out-pulse the called number. The service requires central office equipment capable of receiving and translating tones such that a call may be established between the calling and the called party.

4.2.2 Rate

	Rate Per Month
Touch Call Line, each line	$ 2.00

SECTION 5 – MISCELLANEOUS SERVICES

5.1 General

Miscellaneous Services are furnished subject to availability of facilities and central office capability. Miscellaneous Services are subject to the limitations of the equipment required to provide the services.

Miscellaneous Services are offered on an individual service basis but may be provided in a package of services.

5.2 Reserved Telephone Number(1)

5.2.1 Description

Reserved Telephone Number service allows the customer to reserve a specific telephone number for future use. There is no limit to the quantity of numbers a customer may reserve nor the time period. The rate specified below is for each number reserved. A 30-day minimum period is required with a maximum period of 180 days.

5.2.2 Rate

	Nonrecurring Charge
Reserved Telephone Number, each	$ 26.40

5.3 Labor and Testing

5.3.1 General

Miscellaneous Services available to the customer include the following:

A Additional Labor
B Additional Testing

5.3.2 Additional Labor

Additional labor is that requested by the customer on a given Telecommunications Services and agreed to by the Carrier as set forth in (A) through (E) following. The Carrier will notify the customer that Additional Labor charges as set forth in (E) following will apply before any Additional Labor is undertaken. Additional labor will also apply if the requirement for the additional labor is the fault of the customer or parties on whose behalf it acts.

A Overtime Installation

Overtime installation is that Carrier installation effort outside of the business day. Overtime rates will apply anytime outside the business day and all day Saturday. Premium time rates will apply all day Sunday and on all Carrier approved holidays.

(1) EFFECTIVE NOVEMBER 16, 2013, THIS SERVICE HAS BEEN GRANDFATHERED AND NO LONGER AVAILABLE TO NEW RESIDENTIAL CUSTOMERS. EXISTING CUSTOMERS MAY RETAIN THIS SERVICE; HOWEVER, ADDITIONS, MOVES OR CHANGES ARE NOT PERMITTED. THIS SERVICE IS STILL AVAILABLE FOR RESALE.

SECTION 5 – MISCELLANEOUS SERVICES

5.3 Labor and Testing

5.3.2 Additional Labor (Cont'd)

B Overtime Repair

Overtime repair is Carrier repair which could have been performed during the normal business day, but that is delayed at the specific request of the customer to a later time period which is outside the normal business day or to a weekend day or holiday. The request will result in the application of overtime rates anytime outside the business day and all day Saturday. Premium time rates will apply on Sunday and Carrier approved holidays. These rates will only apply when there is a delay of repair at the request of the customer to the time periods stated above.

C Additional Installation Testing

Additional installation testing is that testing performed by the Carrier at the time of installation which is in addition to normal pre-service acceptance testing.

D Standby

Standby includes all time in excess of one-half (1/2) hour during which Carrier personnel are available on standby to make coordinated tests on a given Telecommunications Services. The standby charge applies only when Carrier personnel must wait more than 30 minutes beyond a prearranged, mutually agreed upon appointment time. Standby charges will cease when testing begins, or when Carrier personnel are released from the standby requirement, or if testing is rescheduled for a later date or time. Charges will not be applicable if Carrier personnel cause the delay.

E Charges for Additional Labor

	Rate
Basic Time, Business Day	
Per Technician:	
First Half Hour or Fraction Thereof	$31.43
Each Additional Half Hour or Fraction Thereof	16.09
Overtime, Outside the Business Day	
Per Technician:	
First Half Hour or Fraction Thereof	34.49
Each Additional Half Hour or Fraction Thereof	19.15

SECTION 5 – MISCELLANEOUS SERVICES

5.3 Labor and Testing

5.3.2 **Additional Labor** (Cont'd)

E Charges for Additional Labor (Cont'd)

Premium Time, Outside the Business Day Per Technician	Rate
First Half Hour or Fraction Thereof	$ 40.61
Each Additional Half Hour or Fraction Thereof	25.27

SECTION 5 – MISCELLANEOUS SERVICES

5.3 Labor and Testing

5.3.3 Telecommunications Services Testing

The Carrier will, at the request of a customer, provide assistance in performing specific tests requested by the customer; however, the Carrier will only perform maintenance testing for its facilities within the LATA.

A Additional Cooperative Acceptance Testing (ACAT)

When a customer provides a technician at its CDL or at the end user premises, with suitable test equipment to perform the required tests, the Carrier will provide a technician at its office for the purpose of conduction Additional Cooperative Testing (ACAT). The labor charges preceding will apply to ACAT at the appropriate Basic, Overtime, or Premium rate.

Additional Cooperative Acceptance Testing charges will apply when the customer requests tests which are not required to meet the transmission performance parameters as set forth in the Frontier Technical Interface Manual.

B Nonscheduled Testing (NST)

When a customer provides a technician at its CDL or at the end user premises, with suitable test equipment to perform the required tests, the Carrier will provide a technician at its office ("cooperative testing") the purpose of conducting Nonscheduled Testing (NST). Nonscheduled testing may consist of any test (e.g., loss, noise, slope, envelope delay, etc.) which the customer may request. If such testing indicates trouble in Carrier facilities, then the customer will not be charged. At the customer's request, the Carrier will provide a technician at the CDL or at the end user premises ("manual testing"). The labor charges will apply to Nonscheduled Testing at the appropriate Basic, Overtime, or Premium rate.

C Obligation of the Customer

When the customer subscribes to Testing as set forth in this section, the customer shall make the facilities to be tested available to the Carrier at times mutually agreed upon.

D Charges

See 5.3.2.E.

SECTION 6 – CONTRACT SERVICE ARRANGEMENTS AND PROMOTIONS

6.1 Contract Service Arrangements

Carrier will offer Contract Service Arrangements to meet the diverse communications needs of Carrier's Customers. All terms and conditions as specified in this product guide will apply unless otherwise specified in the contract between Carrier and Customer.

For Contract Service Arrangements involving individual customers, contracts will be developed on a case-by-case basis. Services offered under contract are generally not available in the product guide or the rates associated with the services may be different than those specified for such services in this product guide. Contracts will be offered to the customer in writing, on a nondiscriminatory basis and shall be maintained by Carrier. Contracts signed by both parties, Carrier and Customer, provide a description of the service(s), the location in the state where the service(s) is (are) provided, and a schedule of all recurring and nonrecurring rates. A listing of the individual contracts and the location in the state where the contracted service is being provided is contained in Section 7 of this product guide.

6.2 Promotions

From time to time Carrier may engage in promotional offerings or trials designed to attract new customers, to stimulate usage, to test potential new services, and/or to increase existing customer awareness of Carrier's services. In connection with these promotional offerings or trials, Carrier may offer special rate incentives and waive in full or in part ordering and/or installation charges. Those offerings may be limited to certain services, dates, times and/or locations determined by Carrier.

SECTION 7 – INDIVIDUAL CONTRACTS

7.1 NEC Corporation of America
6555 North State Highway
IRVING, TX 75039
CONTRACT SIGNED, 05/02/07 – 12 Months
VARIOUS SERVICES

7.2 Fidelity Investments Systems Company

Grapevine, TX	- 2275 Precinct Line Rd.
Irving, TX	- 6001 Campus Circle
	- 330 Phelps Ct.
	- 3500 N. Beltline
	- 22511 Grauwler
Fort Worth, TX	- 1116 Houston St.
Dallas, TX	- 2001 Bryan
	- 2323 Bryan
	- 4100 Bryan

Contract signed, 06/06/01, 5 year (from 11/01/00)
OC3, OC12, and OC48 SONET Services

7.3 Verizon Select Services Inc.
6665 N. MacArthur Blvd.
Irving, TX 75039
Contract signed, 06/12/01, 1 Year (from in-service)
ISDN PRI Service with DID and EMS

7.4 Verizon North Inc. – Westlake
5 Campus Circle
Westlake, TX 76262
Contract signed, 07/12/01, Month-to-Month (18 months)
Analog CentraNet, ISDN-BRI, Digital ACD Service

7.5 Plano ISD
2045 Chenault Drive
Carrollton, TX
Contract renewal signed, 02/08/05, Three (3) year term from signature date
One (1) SONET OC3 Single Route CDL Link

SECTION 7 – INDIVIDUAL CONTRACTS (Cont'd)

7.6 Verizon Wireless
500 W. Dove Road
Southlake, TX 76262
Contract signed, 11/06/02, One (1) year term from in-service date
Various Local Business Services

7.7 CITI Group Technology, Inc.
8 Campus Circle 931 Litsey Road
Westlake, TX Roanoke, TX
Contract singed, 05/02/05, Three (3) year term from in-service date
Dense Wavelength Division Multiplexing (DWDM) Area Network

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

Page

8.1 Ordering Option For Telecommunications Services 2
8.1.1 General 2
8.1.2 Telecommunications Service Request (TSR)/ Access Service Request (ASR) 3
8.2 Special Access 9
8.3 Optical Networking 17
8.4 Asynchronous Transfer Mode (ATM) Service 40
8.5 Frame Relay Service 54
8.6 Transparent LAN Service (TLS) 73

SECTION 8 - FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES

8.1.1 General

A Ordering Conditions

This section sets forth the regulations and order related charges for Telecommunications Services Orders to provide the customer with Telecommunications Services. These charges are in addition to other applicable charges as set forth in other sections of this product guide.

1 A single Telecommunications Services Request (TSR) or Access Service Request (ASR) may be used to order any amount of Telecommunications Services within a service category (i.e. Special Access) so long as the Services are between the same locations and are installed on the same date.

2 The customer shall supply all details necessary to complete an order. The details may include the following: requested service date, customer name, customer designated location, end office, Interface Arrangement, type of Telecommunications Services, and originating and terminating capacity required. The customer may also be required to provide end user name and location, end user contact person, and end user access hours to complete an order for Telecommunications Services.

B Provision of Other Services

1 At the option of a customer, Additional Labor, Testing and Special Routing services may be ordered with an TSR/ASR at the same time the TSR/ASR is accepted by the Carrier. Such requests will be considered to be supplemental to the TSR/ASR. The rates and charges for these services as set forth in other sections of this tariff will apply in addition to the ordering charges set forth in this section and the rates and charges for the Telecommunications Services with which they are associated.

2 The items listed in A. Ordering Conditions preceding may subsequently be added to the TSR/ASR at any time, up to and including the service date established by the TSR/ASR. When ordered subsequently, charges for TSR/ASR modifications as set forth in Section 8.1.2.B will apply.

C Special Construction

1 The regulations, rates and charges for Special Construction are in TEXAS FACILITIES FOR STATE ACCESS TARIFF Section 10 are in addition to the regulations, rates and charges specified in this section.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunications Service Request (TSR) / Access Service Request (ASR)

An TSR/ASR is used by the Carrier to receive orders for the following type of Telecommunications Services requested by the customer:

A Service Date Intervals

The time required to provision service is known as the service date interval. Such intervals will be established in accordance with published service date interval guidelines which are available to customers upon request. The service date interval guidelines will apply to TSRs/ASRs and will specify the quantities of Telecommunications Services that can be provided on the same service date. The customer may request a service date other than that established pursuant to the service date interval guidelines. The Carrier, where possible, will establish the service date in accordance with such request, subject, however, to the product guide provisions governing the ordering of services not listed in the service date interval guidelines.

The customer requested service date may not exceed the Carrier offered service date by more than six months.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunication Service Request (TSR) / Access Service Request (ASR) (Cont'd)

B Telecommunications Services Order Modifications

The customer may request a modification of its TSR/ASR prior to the service date. The Carrier will make every effort to accommodate a requested modification when it is able to do so with the normal work force assigned to complete such an TSR/ASR within normal business hours. If the modification cannot be made with the normal work force during normal business hours, the Carrier will notify the customer. If the customer still desires the TSR/ASR modification, the Carrier will schedule a new service date. All charges for TSR/ASR modifications will apply on a per occurrence basis. Where a new TSR/ASR may be required the appropriate charges as set forth in other sections of this product guide will be applicable.

Any increase in the number of Telecommunications Services circuits will require the issuance of a new TSR/ASR for the incremental capacity.

1 Service Date Change Charge

TSR/ASR service dates may be changed; however, a Service Date Change Charge will apply for each service date change after the plant test date on the TSR/ASR.

For Switched Access, the new service date may not exceed the original service date by more than 30 calendar days. If the requested service date is more than 30 calendar days after the original service date, the TSR/ASR will be canceled by the Carrier and cancellation charges as set forth in 8.1.2.E will apply. The TSR/ASR will be reissued with the new service date.

For Telecommunications Services, except as specified below, the new service date may not exceed the original service date by more than 30 calendar days. If the requested service date is more than 30 calendar days after the original service date, the TSR/ASR will be canceled by the Carrier. Cancellation charges will apply and the TSR/ASR will be reissued with the new service date except as set forth in 8.1.2.E.1.

With the agreement of the Carrier, a new service date may be established that is prior to the original service date and a Service Date Change Charge will apply.

	Nonrecurring Charge
Per Service Date Change	$ 36.58

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunication Service Request (TSR)/Access Service Request (ASR) (Cont'd)

B Telecommunications Services Order Modifications (Cont'd)

2 Partial Cancellation Charge

Any decrease in the number of Telecommunications Services circuits will be treated as a partial cancellation.

A customer may cancel any number of Telecommunications Services circuits.

When a customer partially cancels the service ordered on an TSR/ASR, charges will apply as follows:

(a) When an TSR/ASR for Telecommunications Services Service is partially canceled, the charge will be determined by multiplying the total Telecommunications Services nonrecurring charges for the canceled portion of the order by the number of business days elapsed since the Application Date and dividing that figure by the number of days in the service interval.

(b) When a customer cancels part of an TSR/ASR for which billing has commenced as provided in 8.1.2.B.1 and 8.1.2.E.1, cancellation charges in 8.1.2.E.3.(b) will apply to that part of the TSR/ASR being canceled.

3 Discontinuance of Service

A customer may discontinue Telecommunications Services that is in service at any time. The request for discontinuance of service must be received by the Carrier at least two business days prior to the date on which service is to be disconnected and billing discontinued. The request may be verbal or written, however, a verbal request must be followed, within ten days, by written confirmation. The written confirmation serves as a confirmation of the verbal request rather than a request itself. The customer must notify the Carrier of a delay or cancellation in the discontinuance request prior to the disconnect date. The Carrier, where possible, will establish the disconnect date in accordance with such request. Billing and service will then continue until the new requested disconnect date. If a service is discontinued prior to the expiration of the Minimum Period, (8.1.2.C), the Minimum Period Charges (8.1.2.D), may apply.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunication Service Request (TSR)/Access Service Request (ASR) (Cont'd)

B Telecommunications Services Order Modifications (Cont'd)

4 Design Change Charges

The customer may request a design change to the Telecommunications Services ordered. A design change is any change to a Telecommunications Services Order which requires engineering review. A design change may include the cancellation or addition of Optional Arrangements. It may not include a change of Telecommunications Services Interface Arrangement or facility type, IC point of presence, end user premises, end office switch, or Telecommunications Services type. Changes of this nature will require a new order. The design change charge will apply to all Telecommunications Services circuits.

The Carrier will review the requested change, notify the customer whether the change can be accommodated and specify if a new service date is required. If the customer authorizes the Carrier to proceed with the design change, a Design Change Charge will apply on a per order per occurrence basis. The Design Change Charge is equal to one half of the nonrecurring charges for the Telecommunications Services ordered when there is no nonrecurring charge associated with the change being made. If the change involves the addition or deletion of Optional Arrangements for which nonrecurring charges are stated, the Design Change Charge is equal to 1/2 the nonrecurring charge for each arrangement being added or deleted. The Design Change Charge will apply on a per Telecommunications Services basis.

If a change or service date is required, the Service Date Change Charge as set forth in 1 preceding will also apply.

5 Requests for Expedition

A customer may request an expedited service date. The Carrier will provide an estimate of the charges to the customer in addition to the Service Date Change Charge. The customer must accept the price estimate prior to the Carrier's performing the request for expediting service. The actual charges billed to the customer will be no more than 10 percent over the estimate.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunication Service Request (TSR) / Access Service Request (ASR) (Cont'd)

C Minimum Period

The Minimum Period for which Telecommunications Services is provided and for which charges are applicable is:

One month, for month-to-month rate options or

Term commitment period, for rate options offered with a term commitment.

D Minimum Period Charges

When Telecommunications Services are discontinued prior to the expiration of the Minimum Period, charges are applicable for the remaining month(s) and/or fraction thereof of the Minimum Period.

The Minimum Period Charge will be determined as follows:

For month-to-month rate options, the charge is the applicable monthly rate for the service(s) as set forth in Rates and Charges.

For Term Commitment (TC) rate options, the Termination Liability charge is applicable.

E Cancellation of an TSR/ASR

1 A customer may cancel ordered Telecommunications Services on any date prior to the service date. The cancellation date is the date the Carrier receives written or oral notice from the customer that the TSR/ASR is to be canceled. The oral notification must be confirmed by written confirmation within 10 days.

For Telecommunications Services, if a customer is unable to accept service within 30 calendar days of the original service date, the customer has the choice of the following options:

- The TSR/ASR shall be cancelled and charges in 8.1.2.E.3 will apply, or

- Billing for the service will commence.

In either case, the cancellation date or the billing date shall commence on the 31st calendar day beyond the original service day on the TSR/ASR.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.1 ORDERING OPTIONS FOR TELECOMMUNICATIONS SERVICES (Cont'd)

8.1.2 Telecommunication Service Request (TSR) / Access Service Request (ASR) (Cont'd)

E Cancellation of an TSR/ASR (Cont'd)

2 Telecommunications Services Order costs are considered to have started when the Carrier incurs any cost in connection therewith or in preparation thereof which would not otherwise have been incurred. These costs include but are not limited to preliminary engineering, orders to suppliers and other similar items of cost. For purposes of determining cancellation charges, the costs are considered to have started the day the Carrier is scheduled to complete entering the initial order details into its order distribution system. For all Telecommunications Services Orders this is known as the Scheduled Issued Date.

3 When a customer cancels an TSR/ASR for the installation of new service, or an TSR/ASR to modify existing service, charges will apply as follows:

(a) When an TSR/ASR for Telecommunications Services Service is canceled on or after the Application Date, the Cancellation Charge is calculated, on a per order basis, by multiplying the total nonrecurring charges for the quantity ordered by the number of business days elapsed since the Application Date, and dividing that figure by the number of days in the service interval (i.e., the number of business days between the Application Date and the last day of the service date interval).

(b) When a customer chooses to commence billing rather than cancel an TSR/ASR for these services specified in E.1, the customer must submit an TSR/ASR prior to calendar day 31 from the original service date and request a service date change. The new service date may not exceed the original service date by more than 120 calendar days. Charges in 8.1.2.B.1 will only apply for each subsequent service date change request after calendar day 31, not to exceed 120 calendar days.

When a customer elects to commence billing, monthly recurring charges will begin accruing at calendar day 31 after the original service date. Upon completion of the TSR/ASR, the initial bill for the service will include these accrued charges and any additional nonrecurring charges in addition to billable charges specified in Sections 2 and 8.

If the TSR/ASR is not completed within 121 calendar days of the original service date, the TSR/ASR will be canceled. Cancellation charges in 3(a) will apply. In addition, the customer will be billed the accrued monthly recurring charges specified above plus any additional nonrecurring charges applicable for the Service. These charges will be computed commencing at day 31 after the original service date up to and including the cancellation date, not to exceed 90 days of service (120 days from the original service date). The Carrier will not reissue an TSR/ASR with a new service date beyond 121 calendar days. It will be the customer's responsibility to submit a new TSR/ASR for Telecommunications Services Service, as appropriate.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS **Page**

8.2.1 General 10
8.2.2 Description 10
8.2.3 Conditions 10
8.2.4 Application of Rates and Charges 11
A Special Access Line 11
(1) High Capacity Digital DS1 (1.544 Mbps) Facilities 11
(2) High Capacity Digital DS3 (44.736 Mbps) Facilities 11
B Special Transport Termination 12
C Special Transport 12
D Special Multiplexing Arrangements 12
8.2.5 Rate Regulation 13
8.2.6 Rates and Charges 15

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS

8.2.1 General

This section contains the rules and regulations pertaining to the provisioning of Special Access. The regulations and rates specified herein are in addition to the applicable rates and regulations specified in other Sections of this product guide.

This product guide sets forth the service offerings, rates, terms and conditions applicable to the provision of out of area services furnished by Frontier Southwest Incorporated within the State of Texas, hereinafter referred to as the Company. Services set forth herein are offered for intrastate, intraexchange and interexchange application within LATA 552, where facilities and conditions permit.

8.2.2 Description

Special Access is based on digital technology providing connectivity at, and transport between, two or more customer designated locations (CDLs). Special Access is provided in digital formats that are differentiated by bit rate.

8.2.3 Conditions

Special Access is available only in selected wire centers where technical capabilities permit.

The customer is responsible for providing all facilities and cabling necessary to connect customer equipment to this interface.

Customer Facility Assignment (CFA) is controlled by the Carrier, on all access customer serving wire centers on the Interoffice Facility (IOF) and extends to the terminating CDL. Should the customer require control of the facility assignment and order multiplexing on the IOF, the services from the multiplexer to the end user serving wire center will be ordered from 8.2 of this product guide.

It is the customer's responsibility to ensure that the customer’s equipment provides industry standard electrical signals compatible with DS1 and DS3 digital transmission.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.4 Application of Rates and Charges

The following rate elements apply to Special Access Service:

A Special Access Line
B Special Transport Termination
C Special Transport
D Multiplexing Arrangements (DS3 Only)
E Clear Channel Capability

A Special Access Line

The Special Access Line rate element provides the platform for customer access to the Carrier's Special Access Network. The Special Access Line element provides the link between the CDL and the SWC of the CDL. There are two types of Special Access Lines (SAL):

1 High Capacity Digital DS1 (1.544 Mbps) Facilities

(a) Special Access Line (SAL)

A Special Access Line provides the transmission facilities of 1.5Mbps to a Customer Designated Location (CDL) or the facilities between a CDL and the serving wire center.

Installation of DS1 SALs is as set forth in 8.2.6.A. The applicable rates are monthly as set forth per DS1 SAL installed.

One Special Access Line charge applies per CDL at which the facility is terminated. This charge applies even if the facilities to the CDL do not transit a serving wire center; this charge also applies if the CDL and the serving wire center are co-located in a Carrier building.

2 High Capacity Digital DS3 (44.736 Mbps) Facilities

(a) Special Access Line (SAL)

A Special Access Line provides the transmission facilities of 44.736Mbps to a Customer Designated Location (CDL) or the facilities between a CDL and the serving wire center.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.4 Application of Rates and Charges (Cont'd)

A Special Access Line (Cont'd)

2 High Capacity Digital DS3 (44.736 Mbps) Facilities (Cont'd)

(a) Special Access Line (SAL) (Cont'd)

Installation of DS3 SALs is as set forth in 8.2.6.B. The applicable rates are monthly as set forth per DS3 SAL installed.

One Special Access Line charge applies per CDL at which the facility is terminated. This charge applies even if the facilities to the CDL do not transit a serving wire center; this charge also applies if the CDL and the serving wire center are co-located in a Carrier building.

B Special Transport Termination

Special Transport Termination provides the equipment and arrangements necessary to terminate the Special Transport facility at a serving wire center. One Special Transport Termination charge applies for the termination of each end of a Special Transport facility for DS1 or DS3 offerings.

C Special Transport

The transport is mileage sensitive and will be calculated based on the V&H coordinates of the wire centers comprising each segment of the connection.

The Transport is provided at a monthly recurring charge, per airline mile.

D Special Multiplexing Arrangements

An arrangement that multiplexes twenty-eight DS1 digital circuits to a single DS3 digital circuit at a rate of 44.736Mbps, or multiplexes a single DS3 digital circuit at a rate of 44.736Mbps to twenty-eight DS1 digital circuits.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.4 Application of Rates and Charges (Cont'd)

E Clear Channel Capability

All DS1s referenced within this product guide are capable of including Clear Channel Capability (CCC). CCC is an arrangement that allows the customer to transport 1.536 Mbps of information through a DS1 with no constraint on the quantity or sequence of one (mark) and zero (space) bits utilizing the Bipolar with Eight Zero Substitution (B8ZS) method of providing bit sequence independence. This arrangement is capable of transporting DS1 signals which utilize Superframe or Extended Superframe Format (ESF) as defined by the American National Standards Institute (ANSI) T1.107-1988 standard. The installation interval for Clear Channel Capability may exceed standard intervals where equipment in the central office is not readily available. The charges apply on a per SAL basis.

This arrangement requires the customer signal at the channel interface to conform to the B8ZS method of providing bit sequence independence, as described in ANSI T1.102-1987.

8.2.5 Rate Regulations

A General

1 Special Access Services within this product guide may be ordered under a one (1), three (3) or five (5) year Term Commitment (TC) period. Any TC for these services is subject to the Termination Liability Charge as specified herein.

2 These regulations apply only to services described in the 8.2.4 A-E portion to this product guide.

3 Three and five year rates will be equal to or less than the one year TC rates.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.5 Rate Regulations (Cont'd)

B Changes in Length to the Term Commitment Period

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

(a) No credit toward the new payment period will be given for payments made under the original term arrangement.

(b) If the new TC period is shorter in length than the time remaining under the existing TC, termination liability charges will apply (Section 2.5).

(c) The rates for the new period will be the rates currently in effect at the time of the change.

C Renewal Options

1 For renewal options, see Section 2.5.2(C).

2 Conversion to a different TC period will require the customer to submit a change service order. Conversion to a different TC period will be allowed without application of any nonrecurring or ordering charges.

D Notification of Discontinuance

1 A service order to discontinue an term commitment arrangement must be received by the Telephone Company at least thirty (30) days prior to actual disconnection of service. Monthly charges will apply for a period of thirty (30) days from the date the Telephone Company receives disconnect notification or until the requested disconnect date, whichever is longer.

E Upgrade to Higher Speed Service

1 Customers may elect to upgrade service(s) to a higher speed during an term commitment period, subject to the conditions in Section 2.5, Termination Liability.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.6 Rates and Charges

A High Capacity Digital DS1 (1.544 Mbps) Facilities

	Standard Arrangements	Nonrecurring Charges	Monthly Rate
	Special Access Line, First and Additional Systems		
	One Year Term Commitment*	--	$210.00
	Three Year Term Commitment*	--	175.00
	Five Year Term Commitment*	--	150.00
2	**Special Transport Termination**	--	25.00
3	**Special Transport, per air line mile**	--	10.00
4	**Clear Channel Capability**	--	24.00

* See Termination Liability.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.2 SPECIAL ACCESS (Cont'd)

8.2.6 Rates and Charges (Cont'd)

B High Capacity Digital DS3 (44.736 Mbps) Facilities

		Nonrecurring Charges	Monthly Rate
1	Protected DS3 - Electrical Interface		
	Special Access Line, First and Additional Systems		
	One Year Term Commitment*	--	$1,700.00
	Three Year Term Commitment*	--	1,200.00
	Five Year Term Commitment*	--	1,075.00
2	**Special Transport Termination**	--	262.00
3	**Special Transport, per air line mile**	--	28.20
4	**M1/3 Multiplexing**	--	225.00

* See Termination Liability.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING **Page**

8.3.1 General 18
8.3.2 Description 18
8.3.3 Conditions 18
8.3.4 Application of Rates and Charges 19
A Connect 19
1 Custom Connect 19
2 Express Connect 21

8.3.5 Rate Regulation 23

8.3.6 Off-Net Wire Center 24

8.3.7 Reserved 24

8.3.8 Rates and Charges 25

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3. OPTICAL NETWORKING

8.3.1 General

This section contains the rules and regulations pertaining to the provisioning of SONET Service. The regulations and rates specified herein are in addition to the applicable rates and regulations specified in other Sections of this product guide.

This service supports asynchronous bandwidth capacities at 1.5 Mbps and 45 Mbps in addition to synchronous Optical Carrier (OC) bandwidth capacities at OC-3, OC-12, and OC-48Mbps. The SONET add/drop multiplexer aggregates lesser bit speed services onto the dedicated SONET ring or the two-point SONET circuit configuration. Service set forth herein is offered for intrastate, intraexchange and interexchange application within LATA 552, where facilities and conditions permit.

8.3.2 Description

Optical Networking is comprised of high speed SONET based technology providing connectivity at, and transport between, two or more customer designated locations (CDLs).

8.3.3 Conditions

Optical Networking is available only in selected wire centers where technical capabilities permit.

The customer is responsible for providing all facilities and cabling necessary to connect customer equipment to this interface.

Customer Facility Assignment (CFA) is controlled by the Carrier, on all access customer serving wire centers on the Interoffice Facility (IOF) and extends to the terminating CDL. Should the customer require control of the facility assignment and order multiplexing on the IOF, the services from the multiplexer to the end user serving wire center will be ordered from 8.2, Special Access, of this product guide.

It is the customer's responsibility to ensure that the customer's equipment provides industry standard electrical signals compatible with Optical Networking transport transmission. Technical specifications are contained in the following publications:

Bellcore Document GR-253-CORE, Issue 2, April, 1996
Bellcore Document GR-1400-CORE, Issue 1, March, 1994
Bellcore Document GT-1374-CORE, Issue 1, March, 1994
American National Standard, ANSI T1.105-1996
American National Standard, ANSI T1.102-1993

The Carrier will work cooperatively with the customer during a planning session to insure that the customer orders sufficient Optical Networking bandwidth capacity to satisfy the customer's requirements as well as other applicable Optical Networking services. This planning session must take place prior to an initial Optical Networking service order.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.4 Application of Rates and Charges

A Connect

The Connect rate element provides the platform for customer access to the Carrier's Optical Network. The Connect element provides the link between the CDL and the SWC of the CDL.

There are two types of Connect:

1 Custom Connect

The Custom Connect provides a connection to the Carrier's Optical Network and an access customer's designated location (CDL). The Custom Connect is comprised of CO Nodes, CDL Links, Transport and Riders. Each Custom Connect must consist of a minimum of two customer designated locations, one of which must be a CDL Link.

The Custom Connect may be ordered as special access.

CO Node

The CO Node rate element is applicable for each central office that is equipped with a fiber optic terminal in which the customer requests the ability to add/drop traffic to a CDL. If the customer wants to drop traffic below a DS3 at the CO Node, the customer must request a minimum DS1 interface and appropriate special access lines from 8.2. The appropriate multiplexing and access lines and transport rates from 8.2 will apply in addition to the CO Node and appropriate rider charges. The CO Node may be ordered at an OC3, OC12, or OC48 bandwidth capacity. The CO Node may be ordered under a one (1) year, three (3) year, five (5) year or seven (7) year Term Commitment (TC) period.

The CO Node may be ordered when a customer requires OC level multiplexing on the Custom Connect.

CO Nodes may only be ordered from wire centers with Optical Networking capabilities.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.4 Application of Rates and Charges (Cont'd)

A Connect (Cont'd)

1 Custom Connect (Cont'd)

CDL Link

The CDL Link rate element is applicable for each customer designated location in which the customer requests the ability to add/drop traffic. The CDL Link is offered as Single Route, Diverse Route or Ring Route and may be ordered with premises multiplexer provided or with premises fiber meet provided as OC3, OC12 or OC48 bandwidth capacity. Only one CDL Link per connect may be ordered with premises fiber meet provided. The premises fiber meet will terminate on a fiber cross connect panel at the demarcation point.

If more than two Links or Nodes are ordered on the same order, the CDL Link may be ordered as a Ring Route CDL Link. A Custom Connect ordered via a ring topology will be provided with an out-of- service credit as shown in Section 2.10.

The CDL Link may be ordered as OC3c or OC12c Single Route or Diverse Route with premises multiplexer provided. OC3c and OC12c rider charges are included in the monthly rate for OC3c and OC12c CDL Links.

The CDL Link may be ordered under a one (1) year, three (3) year, five (5) year or seven (7) year TC period.

CDL Link with Optical Cross Connect

The CDL Link with Optical Cross Connect provides the communications path between the Carrier's serving wire center end of a CDL Link and an IXC's or ISP's transmission equipment and facilities collocated in the Carrier's serving wire center. This rate element includes the CDL Link from the fiber optic terminal and the optical jumpers to facilitate the cross connect to the IXC's or ISP's transmission equipment and facilities located within the Carrier wire center.

The CDL Link with Optical Cross Connect will be provided as single route without Carrier provided electronics as OC3, OC3c, OC12, OC12c or OC48 as ordered by the customer.

In addition to the rate for the CDL Link with Optical Cross Connect, the appropriate CDL Link rate element is applicable from the customer-designated location to the serving wire center and the appropriate Dedicated Transport rate element is applicable between serving wire centers.

The CDL Link with Optical Cross Connect may be ordered under a one (1) year, three (3) year, five (5) year or seven (7) year TC period.

Rates for the CDL Link with Optical Cross Connect are shown in 8.3.8 will apply in addition to other charges specified in this section.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.4 Application of Rates and Charges (Cont'd)

A Connect (Cont'd)

1 Custom Connect (Cont'd)

Transport

Transport may be ordered as shared or dedicated. Shared Transport is applicable when the transport between nodes and/or Links is ordered at different bandwidth levels. The Dedicated Transport is applicable when transport between the Nodes and/or Links is of the same bandwidth level. Shared Transport may be ordered in bandwidths of DS1, DS3/STS1, OC3, OC3c, OC12, OC12c or OC48. Dedicated Transport may be ordered in bandwidths of OC3, OC3c OC12, OC12c or OC48.

The transport is mileage sensitive and will be calculated based on the V&H coordinates of the wire centers comprising each segment of the connection. The billing mileage calculation is specified in 2.13.

The Transport is provided at a monthly recurring charge, per airline mile.

Rider

The Rider is the customer's service(s) traversing the CDL Link. Riders may be provided at DS1, DS3, OC3c, OC12c or STS1 bandwidth levels as required by the customer.

The Rider is provided at a flat-rated monthly recurring charge which includes add/drop multiplexing and is applicable per rider circuit with the exception of OC3c, and OC12c CDL Links.

2 Express Connect

The Express Connect provides a connection to the Carrier's Optical Networking wire center(s) via a ring topology consisting of three nodes, one of which must be a Carrier wire center. When two of the nodes are customer-designated locations, at least one of the nodes must be electrical. The Express Connect is provided at a bandwidth of OC3, OC12 or OC48 and may be ordered under a one (1) year, three (3) year, five (5) year or seven (7) year Term Commitment.

The Express Connect may be ordered as special access.

The Express Connect has five rate elements, a First System, Additional System(s), Additional CDL Nodes, Additional CO Nodes and Transport.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.4 Application of Rates and Charges (Cont'd)

A Connect (Cont'd)

2 Express Connect (Cont'd)

First System

The customer may order the "First System" of OC3, or OC12 bandwidth which defines ring capacities of OC12 or OC48 bandwidth respectively.

Additional System

The customer may order up to three "Additional Systems" of OC3, or OC12 bandwidth not to exceed OC12 or OC48 bandwidth capacity respectively.

Additional CDL Node

The Additional CDL Link rate element is applicable for each customer designated location in which the customer requests the ability to add/drop traffic. The Additional CDL Link may be ordered at an OC3, or OC12 bandwidth capacity.

Additional CO Node

The Additional CO Node rate element is applicable for each central office that is equipped with a fiber optic terminal in which the customer requests the ability to add/drop traffic to a CDL. If the customer wants to drop traffic below a DS3 at the CO Node, the customer must request a minimum DS1 interface and appropriate special access lines from Section 8.2. The appropriate multiplexing and access lines and transport rates will apply in addition to the Additional CO Node charge. The Additional CO Node may be ordered at an OC3, or OC12 bandwidth capacity.

Transport

The Transport rate element applies when the Express Connect has more than one CO Nodes in the ring. The appropriate Custom Connect Shared Transport rates from 8.3.8.A will apply in addition to all other Express Connect rates.

Rider

Rider charges are included in the monthly rate for Express Connect - First or Additional System rate elements.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.5 Rate Regulations

A General

(1) Optical Networking may be ordered under a one (1), three (3), five (5), or seven (7) year Term Commitment (TC) period. Any TC for these services is subject to the Termination Liability Charge as specified in Section 2.5.

(2) When ordered together the TC applies to Connects and Additional Nodes.

(3) Three and five year rates will be equal to or less than the one year TC rates.

B Changes in Length to the Term Commitment Period

(1) Prior to the completion of the selected term commitment period, the customer may elect to convert to a new TC period of the same or different length, subject to the following conditions:

(a) No credit toward the new payment period will be given for payments made under the original term arrangement.

(b) If the new TC period is shorter in length than the time remaining under the existing TC, termination liability charges will apply as outlined in Section 2.5.

(c) The rates for the new period will be the rates currently in effect at the time of the change.

C Renewal Options

(1) For renewal options, see Section 2.5.2, under Termination Liability.

(2) Conversion to a different TC period will require the customer to submit a change service order. Conversion to a different TC period will be allowed without application of any nonrecurring or ordering charges.

D Notification of Discontinuance

(1) A service order to discontinue a term commitment arrangement must be received by the Telephone Company at least thirty (30) days prior to actual disconnection of service. Monthly charges will apply for a period of thirty (30) days from the date the Telephone Company receives disconnect notification or until the requested disconnect date, whichever is longer.

E Upgrade to Higher Speed Service

(1) Customers may elect to upgrade service(s) to a higher speed during a term commitment period, subject to the conditions in Section 2.5, Termination Liability.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.6 Off-Net Wire Center

Off-Net wire center is a wire center not designated as an Optical Networking wire center office. The customer may order a DS1, or DS3 to the Off-Net wire center. Mileage charges will be determined based on airline miles to the nearest On-Net wire center at the transport rates shown in Section 8.2.

Circuits connected to the Off-Net wire center will be billed existing rates.

8.3.7 Reserved

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges

A Custom Connect CO Node – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,500.00	$ 1,000.00	$ 900.00	$ 850.00	$ 800.00

Custom Connect CO Node – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 2,300.00	$ 2,200.00	$ 2,100.00	$ 2,000.00

Custom Connect CO Node – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 4,500.00	$ 4,300.00	$ 4,100.00	$ 3,900.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Single Route with Premises Multiplexer Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 1,190.00	$ 1,100.00	$ 1,050.00	$ 1,000.00

Custom Connect CDL Link – Single Route with Premises Fiber Meet Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,500.00	$ 700.00	$ 650.00	$ 620.00	$ 600.00

Custom Connect CDL Link – Single Route with Premises Multiplexer Provided – OC3c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 3,500.00	$ 3,200.00	$ 3,050.00	$ 2,900.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Single Route with Premises Muliplexer Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 2,750.00	$ 2,450.00	$ 2,300.00	$ 2,150.00

Custom Connect CDL Link – Single Route with Premises Fiber Meet Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,500.00	$ 1,100.00	$ 1,050.00	$ 1,020.00	$ 995.00

Custom Connect CDL Link – Single Route with Premises Multiplexer Provided – OC12c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 6,900.00	$ 6,480.00	$ 6,270.00	$ 6,050.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Single Route with Premises Multiplexer Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 4,650.00	$ 4,320.00	$ 4,020.00	$ 3,800.00

Custom Connect CDL Link – Single Route with Premises Fiber Meet Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,500.00	$ 2,100.00	$ 2,050.00	$ 2,020.00	$ 1,995.00

SECTION 8 – FACILITIES FOR STATE ACCESS

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Diverse Route with Premises Multiplexer Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 1,790.00	$ 1,700.00	$ 1,650.00	$ 1,600.00

Custom Connect CDL Link – Diverse Route with Premises Fiber Meet Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 1,300.00	$ 1,250.00	$ 1,220.00	$ 1,200.00

Custom Connect CDL Link – Diverse Route with Premises Multiplexer Provided – OC3c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 4,100.00	$ 3,800.00	$ 3,650.00	$ 3,500.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Diverse Route with Premises Multiplexer Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 3,350.00	$ 3,050.00	$ 2,900.00	$ 2,750.00

Custom Connect CDL Link – Diverse Route with Premises Fiber Meet Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 2,200.00	$ 2,100.00	$ 2,050.00	$ 1,995.00

Custom Connect CDL Link – Diverse Route with Premises Multiplexer Provided – OC12c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 7,500.00	$ 7,080.00	$ 6,870.00	$ 6,650.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Diverse Route with Premises Multiplexer Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 5,250.00	$ 4,830.00	$ 4,620.00	$ 4,400.00

Custom Connect CDL Link – Diverse Route with Premises Fiber Meet Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 4,200.00	$ 4,000.00	$ 3,875.00	$ 3,750.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Ring Route with Premises Multiplexer Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 2,790.00	$ 2,700.00	$ 2,650.00	$ 2,600.00

Custom Connect CDL Link – Ring Route with Premises Fiber Meet Provided – OC3

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 2,300.00	$ 2,250.00	$ 2,220.00	$ 2,200.00

Custom Connect CDL Link – Ring Route with Premises Multiplexer Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 4,350.00	$ 4,050.00	$ 3,900.00	$ 3,750.00

Custom Connect CDL Link – Ring Route with Premises Fiber Meet Provided – OC12

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 2,300.00	$ 2,250.00	$ 2,220.00	$ 2,200.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Ring Route with Premises Multiplexer Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 6,000.00	$ 6,250.00	$ 5,830.00	$ 5,620.00	$ 5,400.00

Custom Connect CDL Link – Ring Route with Premises Fiber Meet Provided – OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,000.00	$ 4,350.00	$ 4,050.00	$ 3,900.00	$ 3,750.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect CDL Link – Single Route with Optical Cross Connect – OC3 / OC3c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,000.00	$ 715.00	$ 690.00	$ 675.00	$ 650.00

Custom Connect CDL Link – Single Route with Optical Cross Connect– OC12 / OC12c

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 2,500.00	$ 1,640.00	$ 1,590.00	$ 1,550.00	$ 1,500.00

Custom Connect CDL Link – Single Route with Optical Cross Connect– OC48

Nonrecurring Charge	One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 2,500.00	$3,450.00	$3,350.00	$3,275.00	$3,150.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect – Rider – DS1

Monthly Rate

$ 75.00

Custom Connect – Rider – DS3

Monthly Rate

$ 250.00

Custom Connect – Rider – STS1

Monthly Rate

$ 240.00

Custom Connect – Rider – OC3c

Monthly Rate

$ 750.00

Custom Connect – Rider – OC12c

Monthly Rate

$ 2,250.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect – Shared Transport – DS1

Per Mile Monthly Rate
$ 12.00

Custom Connect – Shared Transport – DS3/STS1

Per Mile Monthly Rate
$ 56.70

Custom Connect – Shared Transport – OC3/OC3c

Per Mile Monthly Rate
$ 210.00

Custom Connect – Shared Transport – OC12/OC12c

Per Mile Monthly Rate
$ 450.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

A Custom Connect – Dedicated Transport – OC3/OC3c

Per Mile Monthly Rate
$ 170.00

Custom Connect – Dedicated Transport – OC12/OC12c

Per Mile Monthly Rate
$ 240.00

Custom Connect – Dedicated Transport – OC48

Per Mile Monthly Rate
$ 370.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

B Express Connect – First System – OC3

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 7,800.00	$ 7,150.00	$ 6,500.00	$ 6,400.00

Express Connect – Additional System – OC3

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 1,100.00	$ 1,100.00	$ 1,100.00	$ 1,100.00

Express Connect – First System – OC12

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 13,500.00	$ 11,300.00	$ 10,700.00	$ 10,600.00

Express Connect – Additional System – OC12

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 2,200.00	$ 2,100.00	$ 2,100.00	$ 2,100.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.3 OPTICAL NETWORKING (Cont'd)

8.3.8 Rates and Charges (Cont'd)

B Express Connect – Additional CDL Node – OC3

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,300.00	$ 3,300.00	$ 3,300.00	$ 3,300.00

Express Connect – Additional CO Node – OC3

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 2,200.00	$ 2,200.00	$ 2,200.00	$ 2,200.00

Express Connect – Additional CDL Node – OC12

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 5,600.00	$ 5,500.00	$ 5,250.00	$ 5,250.00

Express Connect – Additional CO Node – OC12

One Year Monthly Rate	Three Year Monthly Rate	Five Year Monthly Rate	Seven Year Monthly Rate
$ 3,425.00	$ 3,350.00	$ 3,100.00	$ 3,100.00

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4 ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1]

Page

8.4.1 General 41
8.4.2 Description 41
8.4.3 Components 41
8.4.4 Technical Specifications 44
8.4.5 Provision of Service 45
8.4.6 Service Functionality 45
8.4.7 Class of Service Parameters 46
8.4.8 Conditions 47
8.4.9 Responsibility of the Customer 47
8.4.10 Responsibility of the Company 47
8.4.11 Application of Rates and Charges 47
8.4.12 Rates and Charges 51

1. Effective February 15, 2013, Asynchronous Transfer Mode (ATM) Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a one-year service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4 ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.1 General

This section contains the rules and regulations pertaining to the provisioning of Asynchronous Transfer Mode Service. The regulations and rates specified herein are in addition to the applicable rates and regulations specified in other Sections of this product guide.

Service set forth herein is offered for intrastate, intraexchange and interexchange application within LATA 552, where facilities and conditions permit.

8.4.2 Description

Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) is a telecommunications transport and switching service that provides for high-speed connectivity between Customer-designated locations. ATM CRS consists of one interface: 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 8.4.3.B.

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

UNI Port With Access Line Connections, UNI Port Only Connections, PVCs and SVCs are further described in 8.4.3.

8.4.3 Components

The major components of ATM CRS are:

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4 ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.3 Components (Cont'd)

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

UNI Port With Access Line Connections, which are available at the DS3 and OC3c 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.

In order for Customer traffic to be carried on the network, each Incremental UNI requires at least one 5 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 enables the Customer to have virtual connections to various locations.

UNIs are provided at nominal data rates of 44.736 Mbps (DS3) or 155.52 Mbps (OC3c). OC3c is provided as a concatenated signal in STS-3c (Synchronous Transport Signal) formats. The actual throughput into CRS is less than the line rate for the UNI provided.

The OC3c UNI Port With Access Line Connection is provisioned on Protected Synchronous Optical Network (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 Protected SONET UNI Port With Access Line Connection is provisioned over SONET as a survivable service with an alternate (not diverse) facility between the central office and the Customer premises. DS3 and OC3c, both electrical and optical, are supported and defined to the technical specifications set forth in 8.4.4.

B. UNI Port Only Connection

Port Only Connections can be established as a User Network Interface (UNI) arrangement. UNI Port Only connection provides an ATM Cell Relay Network connection based on the port connection speeds of DS3 and OC3c. 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 on a one-year, two-year, three-year and five-year term.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4 ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.3 Components (Cont'd)

B. UNI Port Only Connection (Cont'd)

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 or product guide 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/product guide. 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.

C. Permanent Virtual Circuit

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 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.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4 ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.3 Components (Cont'd)

D. Switched Virtual Circuit (SVC)

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

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

E. Effective Bandwidth

Effective bandwidth is the bandwidth reserved for each logical connection (PVC or SVC) that is set up across a UNI. It is based on the Peak Cell Rate (PCR), Sustained Cell Rate (SCR), Maximum Burst Size, and the class 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 class of service level selected. However, effective bandwidth is consumed in varying degrees based on the class of service parameters selected. The higher the class of service, the more bandwidth will be reserved. A CBR PVC with the same PCR as a VBR PVC will reserve more effective bandwidth.

8.4.4 Technical Specifications

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

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

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

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.5 Provision of Service

ATM CRS includes:

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

B. Unlimited usage on purchased bandwidth.

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

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

E. Two types of PVCs, (i) Virtual Channel Connections (VCCs) and (ii) Virtual Path Connections (VPCs), which support the following Classes of Service:

1. Constant Bit Rate (CBR)
2. Variable Bit Rate real time (VBRrt)
3. Variable Bit Rate non-real time (VBRnrt)
4. Unspecified Bit Rate (UBR)

8.4.6 Service Functionality

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.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.7 Class of Service Parameters

A. Constant Bit Rate (CBR)

1. Peak/Sustained Cell Rate:

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

2. Non-conforming cells:

   Discarded

3. Cell Delay Variation Tolerance (CDVT):

   DS3 = 600 microseconds
   OC3c = 600 microseconds

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

1. Sustained Cell Rate (SCR):

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

2. Peak Cell Rate (PCR):

   Customer selectable in 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.)

3. Non-conforming cells:

   Discarded

4. Cell Delay Variation Tolerance (CDVT):

   DS3 = 600 microseconds
   OC3c = 600 microseconds

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.8 Conditions

A. 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.

B. 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 8 AM. Network upgrades are planned to provide Customers reasonable and timely notification in order to minimize any impact on the Customers' service.

8.4.9 Responsibility of the Customer

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

8.4.10 Responsibility of the Company

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

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

8.4.11 Application of Rates and Charges

A. Rate Elements

The following rate elements are applicable to ATM CRS:

- User Network Interfaces (UNIs) Port With Access Line Connection
- User Network Interfaces (UNIs) Port Only Connection
- Permanent Virtual Circuits (PVCs)
- Effective Bandwidth for Incremental UNIs
- Closed User Groups (CUG)
- Administrative Charge

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.11 Application of Rates and Charges (Cont'd)

A. Rate Elements (Cont'd)

1. User Network Interfaces (UNIs) Port With Access Line Connection

   A monthly rate apply on a per Port With Access Line basis, based on the speed (i.e., DS3 or OC3c) and/or type (i.e., Full, Incremental or SONET Protected) 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., DS3 or OC3c) 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.

3. 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 Port on which the virtual connections will reside. The nonrecurring does not apply when PVCs are installed at the same time as the respective UNIs.

4. 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. A monthly rate also applies for incremental UNIs for UBR PVC and SVC bandwidth for DS3 and OC3c. 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.

5. 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.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.11 Application of Rates and Charges (Cont'd)

A. Rate Elements (Cont'd)

6. 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, class 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.

B. Minimum Period

The minimum period for ATM CRS is one month. If service is discontinued during the first month of the initial establishment of service, the full monthly rate for the first month of service will apply. The termination liability charge will apply for the remainder of the term commitment option.

C. Extended Service Plan

The ATM CRS UNI Port With Access Line and UNI Port Only rate elements are available under an ESP.

Term commitments of one-, two-, three- and five-years are available to all Customers at the applicable rates set forth in 8.4.12., regardless of when they subscribe to an ESP arrangement. Rate elements must be ordered under the same ESP period.

1. Termination Liability

Effective February 15, 2013, does not apply to ATM Service.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.11 Application of Rates and Charges (Cont'd)

D. 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.

E. 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.

F. 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.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [1] (Cont'd)

8.4.12 Rates and Charges

A. User Network Interfaces (UNIs) Port With Access Line Connection

	1-Year Term Monthly Rate	2-Year Term Monthly Rate	3-Year Term Monthly Rate	5-Year Term Monthly Rate
1. DS3, each				
Full	$ 3,355.00	$3,187.00	$ 2,852.00	$ 2,684.00
Incremental	2,815.00	2,674.00	2,393.00	2,252.00
2. OC3c, each				
SONET - Protected				
Full	6,330.00	6,014.00	5,381.00	5,064.00
Incremental	4,410.00	4,190.00	3,749.00	3,528.00

B. User Network Interfaces (UNIs) Port Only Connection

1. DS3, each				
Full	1,224.00	1,163.00	1,040.00	979.00
Incremental	588.00	559.00	500.00	471.00
2. OC3c, each				
Full	3,200.00	3,040.00	2,720.00	2,560.00
Incremental	941.00	894.00	800.00	753.00

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [2] (Cont'd)

8.4.12 Rates and Charges (Cont'd)

C. Permanent Virtual Circuits (PVCs), per order

	Nonrecurring Charge[1]
1. Virtual Channel Connections (VCCs)	
Constant Bit Rate (CBR)	$ 75.00
Variable Bit Rate real time (VBRrt)	75.00
Variable Bit Rate non-real time (VBRnrt)	75.00
Unspecified Bit Rate (UBR)	75.00
2. Virtual Path Connections (VPCs)	
Constant Bit Rate (CBR)	75.00
Variable Bit Rate real time (VBRrt)	75.00
Variable Bit Rate non-real time (VBRnrt)	75.00
Unspecified Bit Rate (UBR)	75.00

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

[2] Effective February 15, 2013, Asynchronous Transfer Mode (ATM) Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a one-year service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.4. ASYNCHRONOUS TRANSFER MODE (ATM) SERVICE [3] (Cont'd)

8.4.12 Rates and Charges (Cont'd)

	Monthly Rate	Nonrecurring Charge
D. Effective Bandwidth for Incremental UNIs		
1. CBR or VBR PVC Bandwidth		
DS3, OC3c – 5 Mbps	$ 80.00	N/A
2. CBR or VBR SVC Bandwidth		
DS3, OC3c – 5 Mbps	80.00	N/A
3. UBR PVC and SVC Bandwidth, Bandwidth up to the UNI line rate		
DS3	400.00	N/A
OC3c	1,200.00	N/A
E. Closed User Groups (CUG) [1], per order, per UNI		
1. Each CUG	N/A	$75.00
2. Each subsequent CUG member added to a CUG	N/A	75.00
F. Administrative Charge[2], per order	N/A	75.00

[1] Applies per order, per UNI, and in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides. The nonrecurring charge does not apply when a CUG is installed at the same time as the respective UNI.

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

[3] Effective February 15, 2013, Asynchronous Transfer Mode (ATM) Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a one-year service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

		Page
8.5.1	General	55
8.5.2	Definitions	56
8.5.3	Description	58
8.5.4	Service Components	59
8.5.5	Conditions	61
8.5.6	Rates and Charges	70

[1]. Effective February 15, 2013, Frame Relay Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a month-to-month service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.1 General

This section contains the rules and regulations pertaining to the provisioning of Frame Relay Service. The regulations and rates specified herein are in addition to the applicable rates and regulations specified in other Sections of this product guide.

This product guide sets forth the service offerings, rates, terms and conditions applicable to the provision of out of area services furnished by Frontier Southwest Incorporated within the State of Texas, hereinafter referred to as the Company. Service set forth herein is offered for intrastate, intraexchange and interexchange application within LATA 552, where facilities and conditions permit.

[1] Effective February 15, 2013, Frame Relay Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a month-to-month service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.2 Definitions

Committed Information Rate (CIR) - The maximum information rate at which customer traffic will be admitted to the network without being designated eligible for discard.

Customer Designated Location (CDL) - The geographic location designated by the customer at which an access component of the customer's service is first considered to enter the Utility's network.

Data Link Connection Identifier (DLCI) - The Frame Relay virtual circuit number corresponding to a particular destination which is part of the frame relay header and is usually ten bits long.

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

Frame - A group of data bits, in a specific format, with a flag at either end to indicate the beginning and end of the frame. The defined format enables network equipment to recognize the meaning and purpose of specific bits.

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

Local Area Network (LAN) - A network permitting the interconnection of multiple computers, typically within a single building or campus.

Logical Channel - A communications channel that allows two-way simultaneous transmission of data packets through the network. Capacity is made available as the data is transmitted. Each permanent virtual circuit is one logical channel.

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

Permanent Virtual Circuit (PVC) - A logical channel, defined in software, that establishes a path from one customer port to another.

Port - The entry point on the switch to which the customer is connected. Ports are available which allow connection to the Frame Relay network at specified speeds.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.2 Definitions (Cont'd)

Statistical Multiplexing - A multiplexing technique in which time slots are dynamically allocated on the basis of need rather than being predetermined. The data is typically transmitted on a first come, first served basis.

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 filed of the address field, and it identifies data links and their service parameters.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.3 Description

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

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

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

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

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

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

FRS, as provided for in this product guide, is offered for intrastate use only.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.4 Service Components

A. The Major Components of FRS are:

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

Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)
PVC CIR Optional Features
Software Change

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

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

2. Port Only

   Customers may access Port Only connections via Company-provided digital access facilities or via facilities provided by another carrier. The channel speed of the access channel must be sufficient to accommodate the Frame Relay port speed. When access facilities are provided by the Company, the associated regulations, rates and charges under the appropriate Company tariff or product guide shall apply in addition to the regulations, rates and charges associated with FRS. 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/product guide. 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.

   a. UNI Port Only

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.4 Service Components (Cont'd)

A. The Major Components of FRS are: (Cont'd)

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

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

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

   c. The following type of PVC CIR is available:

      1) Intrazone - An Intrazone PVC is a logical channel path between two customer Frame Relay ports within the same zone. Frame Relay zones are found in H.1.e. following.

4. PVC CIR Optional Features

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

5. Software Change

   A software change occurs when a customer requests a PVC parameter change (i.e., CIR, burst, DLCI re-map to a different host or remote, etc.).

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions

A. Technical Specifications

FRS conforms to the transmission specification standards in the following references:

ANSI T1.602	Integrated Services Digital Network (ISDN) – Data Link Layer Signaling Specification for Application at the User-Network Interface – Issued 1989
ANSI T1.606	Frame Relay Bearer Service, Architectural Framework and Service Description – Issued 1990
ANSI T1.617	Integrated Services Digital Network (ISDN) – Digital Subscriber Signaling Specification for Frame Relay Bearer Service – Issued 1991.
ANSI T1.618	Integrated Services Digital Network (ISDN) – Core Aspects of Frame Relay Bearer Service – Issued 1991

B. Provision of Service

1. FRS is provided to the customer in the form of the UNI Port and Access Line, UNI Port Only, and CIR based PVCs. The UNI Port and Access Line forms the local access component to the customer's serving central office. The UNI Port Only includes the electronic equipment necessary to interface the access line to the Frame Relay switch.

2. PVCs are provisioned on a specified speed and CIR basis, depending upon the customer's request. The actual throughput of aggregated PVC bandwidths in use at the same time on the same port cannot exceed the port speed.

3. 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 44.736 Mbps, the maximum CIR allowed is 50% of the lower of the two port speeds.

4. The PVC must be associated with at least one Frame Relay port. A Frame Relay port can be associated with multiple PVCs.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

B. Provision of Service (Cont'd)

5. The customer subscribing to a Port Only or Port and Access Line will be referred to as the controller of the Frame Relay port. A separate entity may, with written authorization from the controller, subscribe to a PVC that allows communication between entities. A disconnect of a PVC does not result in the disconnect of the underlying access line and port. Only the controller may order the disconnect of the FRS.

6. The Frame Relay port with PVC CIR capacity may be ordered and billed separately from an associated Frame Relay port and PVC, and can have different customers as controllers.

7. FRS availability is as set forth in General (8.5.1).

C. Maintenance Window

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

D. Obligations of the Customer

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

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

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

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

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

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

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

E. Obligations of the Company

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

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

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

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

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

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

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

F. Special Facilities Routing

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

G. Acceptance Testing

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

H. Application of Rates and Charges

1. Rate Elements

The following rate elements are applicable to FRS:

UNI Port and Access Line
Port Only
- UNI Port Only
PVC CIR
PVC CIR Optional Features
Subsequent PVC CIR Charge
Software Change Charge

a. UNI Port and Access Line

A monthly recurring charge based on the speed of the port connection applies per port for each physical connection to the network supporting FRS. Nonrecurring charges do not apply to UNI Port and Access Line offered on a Term Commitment (TC). UNI Port and Access Line is offered on a TC of one year, three years, or five years.

b. Port Only – UNI Port Only

A monthly recurring charge based on the speed of the port connection applies per port for each Port Only interface. Nonrecurring charges do not apply to Port Only offered on a TC. Port Only is offered on a TC of one year, three years, or five years.

Refer to 8.5.4.2. for the rules and regulations associated with Port Only digital access facilities.

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

H. Application of Rates and Charges (Cont'd)

1. Rate Elements (Cont'd)

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

1) Intrazone - A monthly recurring charge, based on CIR capacity, applies for each PVC requested by the customer. Frame Relay zones are found in e. following.

d. PVC CIR Optional Features

1) Frame Relay to ATM Service Interworking - Frame Relay to ATM Service Interworking is available with Intrazone PVC CIR at no additional charge.

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

f. Frame Relay Zones

Zone	Office
Irving	Dallas

g. Software Change Charge

A nonrecurring charge applies when a customer requests a PVC parameter change (i.e., CIR, burst, DLCI re-map to a different host or remote, etc.).

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

H. Application of Rates and Charges (Cont'd)

2. Service Charges

Unless otherwise stated in this product guide, nonrecurring charges applicable to FRS are in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.

3. Minimum Period

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

4. Term Commitment (TC)

a. The UNI Port and Access Line and UNI Port Only rate elements are available under a TC. PVC CIR is not offered under a TC.

b. Payment periods of one year, three years and five years are available to all customers at the applicable rates set forth in Rates and Charges following, regardless of when they subscribe to a TC arrangement.

c. Changes to a TC period

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

- No credit toward the new payment period will be given for payments made under the original TC arrangement.

- Nonrecurring charges will not be reapplied for existing service(s).

- If the value of the new TC is less than the remaining value of current TC, the change to the new TC period constitutes a disconnect of the existing TC service and termination liability charges as set forth in Termination Liability (8.5.5.H.4.d) will apply.

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

H. Application of Rates and Charges (Cont'd)

4. Term Commitment (TC) (Cont'd)

d. Termination Liability

Effective February 15, 2013, does not apply to Frame Relay Service.

5. Service Rearrangements

a. Additions to Service

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

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

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

b. Administrative Changes

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

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [1]

8.5.5 Conditions (Cont'd)

H. Application of Rates and Charges (Cont'd)

5. Service Rearrangements (Cont'd)

c. Jurisdiction Change

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

d. Moves

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

e. Upgrade to Higher Speed Service

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

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

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SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [3]

8.5.6 Rates and Charges

A. UNI Port and Access Line, each

	Nonrecurring Charge(1)	Monthly Rate
1.536 Mbps		
One-year Term Commitment	$ -	$ 617.00
Three-year Term Commitment	-	581.00
Five-year Term Commitment	-	545.00

B. UNI Port Only, each (2)

	Nonrecurring Charge(1)	Monthly Rate
1.536 Mbps		
One-year Term Commitment	$ -	$ 266.00
Three-year Term Commitment	-	254.00
Five-year Term Commitment	-	242.00
44.736 Mbps		
One-year Term Commitment	$ -	$ 980.00
Three-year Term Commitment	-	835.00
Five-year Term Commitment	-	787.00

(1) Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.

(2) Refer to 8.5.4.2. for the rules and regulations associated with Port Only digital access facilities.

[3] Effective February 15, 2013, Frame Relay Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a month-to-month service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [2]

8.5.6 Rates and Charges (Cont'd)

C. PVC CIR, per PVC (Cont'd)

1. Intrazone

	Nonrecurring Charge[1]	Monthly Rate
4 Kbps	$ -	$ 5.00
8 Kbps	-	7.00
16 Kbps	-	8.00
28 Kbps	-	9.00
32 Kbps	-	10.00
42 Kbps	-	13.00
48 Kbps	-	15.00
64 Kbps	-	19.00
96 Kbps	-	26.00
128 Kbps	-	33.00
192 Kbps	-	44.00
256 Kbps	-	51.00
288 Kbps	-	58.00
384 Kbps	-	65.00
512 Kbps	-	73.00
576 Kbps	-	79.00
768 Kbps	-	85.00
1152 Kbps	-	97.00
1536 Kbp	-	109.00

[1] Applies in lieu of service charges found elsewhere in the product guide or other Company tariffs/product guides.

[2] Effective February 15, 2013, Frame Relay Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a month-to-month service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.5 FRAME RELAY SERVICE [2]

8.5.6 Rates and Charges (Cont'd)

C. PVC CIR, per PVC (Cont'd)

1. Intrazone (Cont'd)

	Nonrecurring Change[1]	Monthly Rate
2 Mbps	$ -	$ 116.00
3 Mbps	-	121.00
4 Mbps	-	145.00
5 Mbps	-	172.00
6 Mbps	-	198.00
7 Mbps	-	226.00
8 Mbps	-	251.00
9 Mbps	-	277.00
10 Mbps	-	303.00
11 Mbps	-	322.00
12 Mbps	-	341.00
13 Mbps	-	361.00
14 Mbps	-	380.00
15 Mbps	-	399.00
16 Mbps	-	419.00
17 Mbps	-	438.00
18 Mbps	-	458.00
19 Mbps	-	476.00
20 Mbps	-	496.00
21 Mbps	-	516.00
22 Mbps	-	535.00

D. PVC CIR Optional Features

1. Frame Relay to ATM Service Interworking — No Charge

	Nonrecurring Charge[1]
E. Subsequent PVC CIR Charge, per PVC CIR	$20.00
F. Software Change Charge, per order	30.00

[1] Applies in lieu of service charges found elsewhere in the product guide or other Company tariffs/product guides.

[2] Effective February 15, 2013, Frame Relay Service is grandfathered and is no longer available to new customers. Existing customers may maintain their services; however, upon expiration of the term commitment, the service will lapse into a month-to-month service arrangement. Moves or changes to subscribers' existing services are permissible; however, the customers' term commitment per circuit will not be extended.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) **Page**

8.6.1 General 74
8.6.2 Definitions 74
8.6.3 Description 74
8.6.4 Conditions 76
8.6.5 Regulations 79
8.6.6 Application of Rates and Charges 89
8.6.7 Rates and Charges 94

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS)

8.6.1 General

This section contains the rules and regulations pertaining to the provisioning of Transparent LAN Service (TLS). The regulations and rates specified herein are in addition to the applicable rates and regulations specified in other Sections of this product guide.

This product guide sets forth the service offerings, rates, terms and conditions applicable to the provision of out of area services furnished by Frontier Southwest Incorporated within the State of Texas, hereinafter referred to as the Company. Services set forth herein are offered for intrastate, intraexchange and interexchange applications within LATA 552, where facilities and conditions permit.

8.6.2 Definitions

In addition to definitions set forth elsewhere in this product guide, the following definitions apply:

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

Gigabit Per Second (Gbps.): The speed where data is being transferred in the network, where one Gigabit per second equals the transfer rate of 1 billion bits of data in 1 second.

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

Nanometers (nm): Wavelength frequency equivalent to 1 billionth of a meter.

8.6.3 Description

TLS is a high-speed data service that uses a shared fiber network to allow for the interconnection of Local Area Networks (LANs) across selected metropolitan areas. TLS delivers an interface of 10 Mbps., 100 Mbps., and 1000 Mbps. from the Customer's LANs to the shared network.

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS)

8.6.3 Description (Cont'd)

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

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

With the EMS service type, Ethernet TLS protects data privacy by using closed user groups (CUGs), also known as virtual LANs. CUGs or virtual LANs are used to provide traffic separation, privacy and security between customers on the shared switch and backbone. Subscribers in a CUG can only access their own data. 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.

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

With the ERS service type, 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 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 only access their own data.

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

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

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

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

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.4 Conditions

A. A TLS network will be limited to central offices in a specific geographic location. Customers gain access to the shared TLS network via a switch, node or other 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., 1000 Mbps., or 10 Gbps.

B. TLS is available to Customers whose serving central office is a TLS equipped central office and when the customer is located within the maximum allowable range of the serving central office. The maximum allowable range is determined by the dB loss rate so the actual distance, between the TLS equipped central office and the customer's location, may vary due to facility used in each serving arrangement.

C. Provision of Service

The TLS service will consist of all of the following:

- Network Interface Device (NID) at the Customer's premises to terminate the fiber pair or other optical transport.
- Optical Transport from the Customer's premises to the serving central office.
- Network Management including fault monitoring and diagnostics, performance and network configuration applications and manual monitoring when necessary.
- User Network Interface (UNI) Port With Access Line Connection.
- Ethernet Virtual Circuit (EVC), where applicable.
- Dedicated Port on the switch.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.4 Conditions (Cont'd)

D. Availability of Service

TLS will be provided seven days a week, 24 hours a day, from central offices equipped to provide this service and where optical transport facilities exist.

ERS Service, including Premier Access Lines and ERS-Std, ERS-B, ERS-PD, ERS-RT EVCs, as defined in section B.1, will only be available from Central Offices equipped to support ERS service.

TLS is available where facilities and conditions permit. Special construction charges as referenced in 8.1.1C of this product guide may apply.

E. Connections

The network interface is the LAN interface on the TLS equipment at the Customer's premises.
The interfaces are as follows:

10 Mbps Ethernet RJ45 & AUI
100 Mbps Ethernet (RJ45)
1000 Mbps Ethernet SC Connector

The Customer is responsible for any inside wire required in connecting the LAN to the TLS equipment.

The Customer is also responsible for installation, operation and maintenance of any Customer-provided equipment.

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

F. Limitations

The Customer's location must be within the maximum allowable range of the TLS equipped central office, as defined in 8.6.4B.

G. 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.

H. Technical Specifications

The technical specifications for TLS are delineated in IEEE802.3-2000.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.4 Conditions (Cont'd)

I. Transmission Mode

The transmission mode supported is dependent on the access rate. The supported transmission mode for 10 Mbps. access, 100 Mbps. access, and 1000 Mbps. access is full duplex.

J. TLS availability is specified in 8.4.1, General. Special Construction charges may apply as referenced in Section 8.1.1, C of this product guide.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations

A. Service Level Agreements (SLA)

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

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

The TLS SLA includes the following measurements:

Operational SLAs

- Mean Time to Repair (MTTR)
- Network Availability

Network Performance SLAs

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

The SLA SRC will apply to the following TLS elements:

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

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

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

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

1 Operational Service Level Agreements (SLAs)

(a) Mean Time to Repair (MTTR)

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

MTTR Measurement

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

(1) periods when the Customer testing is occurring;

(2) periods when the Company is awaiting the Customers authorization to commence work on a TLS Access Line;

(3) periods when the Company is denied access to the Customers premises or facilities as necessary to diagnose, repair or test

(4) 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

(5) any time period during which any of the listed occurrences existed, as set forth in Section A.4 SLA Exclusions following.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

1 Operational Service Level Agreements (SLAs) (Cont'd)

(a) Mean Time to Repair (MTTR) (Cont'd)

MTTR Measurement (Cont'd)

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

MTTR 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 Company. The MTTR SRC credit excludes and is not applicable to scheduled maintenance, scheduled downtimes or delays resulting from an event of force majeure.

(b) Network Availability

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

Network Availability Measurement

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

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

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

1 Operational Service Level Agreements (SLAs) (Cont'd)

(b) Network Availability (Cont'd)

Network Availability SRCs

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

2 Network Performance SLAs

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

- Real Time EVC bandwidth CoS, and
- Priority Data EVC bandwidth CoS.

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

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

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

2 Network Performance SLAs (Cont'd)

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

(a) Data Delivery Ratio (DDR)

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

Real Time EVC Bandwidth - Data Delivery Ratio

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

Real Time EVC Bandwidth - Data Delivery SRCs

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

Priority Data EVC Bandwidth - Data Delivery Ratio

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

Priority Data EVC Bandwidth - Data Delivery SRCs

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

2 Network Performance SLAs (Cont'd)

(b) Round Trip Delay (RTD)

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

Real Time EVC Bandwidth - Delay Measurement

The Company threshold for Delay is 20 milliseconds.

Real Time EVC Bandwidth - Delay SRCs

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

Priority Data EVC Bandwidth - Delay Measurement

The Company threshold for Delay is 50 milliseconds.

Priority Data EVC Bandwidth - Delay SRCs

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

2 Network Performance SLAs (Cont'd)

(c) Jitter

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

Real Time EVC Bandwidth - Jitter Measurement

The Company threshold for Delay is 5 milliseconds.

Real Time EVC Bandwidth - Jitter SRC

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

3 Validation for Operational and Network Performance SLAs

(a) Customer Validation

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 Company entity in the manner prescribed by the Company.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

3 Validation for Operational and Network Performance SLAs (Cont'd)

(a) Customer Validation (Cont'd)

Network Performance SLAs:

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

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

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

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

All equipment must be capable of measuring from edge to edge (Customer Premises Equipment (CPE) to CPE) and to make the measurement every five (5) minutes per hour for four (4) hours total per day, for a total of two-hundred 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.

(b) Company Validation

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

4 SLA Exclusions

SLAs do not apply to the extent that any of the following reasons prevented the Company from meeting such SLAs:

(a) 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 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;

(b) Subsequent reports (i.e., additional Customer inquiries) while the trouble is pending;

(c) Service troubles closed due to the Customer's action;

(d) Service troubles repaired by the Company prior to its receipt of a trouble report;

(e) 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 Company;

(f) An Interruption related to the provisioning of a new TLS Access Line or Access Lines in service for less than a month;

(g) Scheduled maintenance and downtimes;

(h) Unavailability of network monitoring or management equipment or reporting;

(i) Any other reason outside the control of the Company.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.5 Regulations (Cont'd)

A. Service Level Agreements (SLA) Cont'd)

5 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:

(a) 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.

(b) 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.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.6 Application of Rates and Charges

A. The following rate elements are applicable to TLS:

- Access Line
- Domain/LAN Extension Equipment Changes

1. UNI Port with Access Line Connection

A nonrecurring charge applies to the installation of the UNI Port with Access Line provided on a month-to-month basis (see 8.6.6).

A monthly rate applies on a per line basis, based on the speed of the access connection (i.e., 10 Mbps, 100 Mbps, or 1000 Mbps.) The Access Line is offered on a month-to-month basis, or as a three-year or five-year Term Commitment Plan.

a. Standard Access Line (available for EMS or ERS 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, 1000 MBPS, or 10 GBPS). The Standard Access Line is offered on a month-to-month basis, or as a three-year or five-year Term Commitment Plan. A nonrecurring charge applies to the installation of Standard Access Lines provided on a month-to-month basis. 10 GBPS is not available for these Protected options.

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.6 Application of Rates and Charges (Cont'd)

A. The following rate elements are applicable to TLS: (Cont'd)

1. UNI Port with Access Line Connection (Cont'd)

c. Premier Access Line - A monthly rate applies on a per-line basis, based on the speed of the access line (i.e., 100 MBPS or 1000 MBPS). A Premier Access Line must be purchased in conjunction with some combination of ERS-B, ERS-PD, and/or ERS-RT EVC service classes, which are described in section B.1. 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. A customer can not mix Premier UNI Ports with any other UNI port type.

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

ERS-B less than or = 500% of UNI Speed
ERS-PD less than or = 100% of UNI Speed
ERS-RT less than or = 100% of UNI Speed
ERS-PD + ERS-RT less than or = 100% of UNI Speed
ERS-B + ERS-PD + ERS-RT less than or = 600% of UNI Speed

d. EMS – Real Time (EMS-RT) Access Line - A monthly rate applies on a per-line basis, based on the speed of the access connection (i.e., 100 MBPS, 1000 MBPS, or 10 GBPS). This enhanced service class configures a fixed portion of the UNI to be configured for Real Time Traffic, where each 100 MBPS UNI has CIR = 2 MBPS with EIR = 0; with each 1000 MBPS UNI has CIR = 10 MBPS with EIR = 0; and with each 10 GBPS UNI has CIR = 50 MBPs with EIR = 0. The remainder of the UNI can be used for CIR = 0 and EIR = 0 traffic. The EMS-RT Access Line is offered on a month-to-month basis or as a 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 customer can not mix an EMS-RT Access Line with the ERS Service type, but may mix EMS-RT Access Line with EMS Access Lines. 10 GBPS is not available for these Protected options.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.6 Application of Rates and Charges (Cont'd)

A. The following rate elements are applicable to TLS: (Cont'd)

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 setup charge will apply per ERS Standard EVC.

For customers who order the Premier Access Line, a monthly rate will apply on a service class and EVC bandwidth basis. Premier Access Line customers have the choice of combining ERS-Basic, ERS-Priority Data, and/or ERS-Real Time bandwidth on an EVC. A non-recurring setup charge will apply per ERS EVC. EVCs are purchased on a month-to-month basis. A customer may have more than one service class on the EVC, but will only pay one EVC non-recurring setup charge.

The number of EVCs permitted on each Standard Access Line and/or Premier Access Line are limited as follows :

10 Mbps less than or = 2 EVCs
100 Mbps less than or = 10 EVCs
1000 Mbps less than or = 250 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	100Mbps UNI Max/EVC	1000Mbps UNI Max/EVC
ERS-B	100Mbps	1000Mbps
ERS-PD	100Mbps	500Mbps
ERS-RT	100Mbps	100Mbps

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.6 Application of Rates and Charges (Cont'd)

A. The following rate elements are applicable to TLS: (Cont'd)

3. Domain/LAN Extension Equipment Changes

Customer requests for changes in EMS Domains and replacement of LAN extension equipment will be charged a nonrecurring charge per location per change (see 8.6.6.F).

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.6 Application of Rates and Charges (Cont'd)

B. Minimum Period

The minimum period for TLS under the month-to-month plan is nine months. The regulations applicable to TLS provided under a Term Commitment Plan are specified in 8.6.5, E.

C. Term Commitment Plans

The TLS Access Line is offered under a Term Commitment Plan.

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.

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.

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

E. Termination Liability

(See Section 2.5.2.)

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

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges

	Nonrecurring Charge[1]	Monthly Rate
A. Standard Access Line, per line		
Month-to-Month Plan[2]		
10 Mbps	$1,300.00	$ 1,200.00
100 Mbps	1,300.00	2,200.00
1000 Mbps	1,300.00	3,700.00
10 Gbps	1,300.00	11,000.00
Three-Year Term Commitment Plan[3]		
10 Mbps	N/A	1,000.00
100 Mbps	N/A	1,800.00
1000 Mbps	N/A	3,200.00
10 Gbps	N/A	9,500.00
Five-Year Term Commitment Plan[3]		
10 Mbps	N/A	900.00
100 Mbps	N/A	1,600.00
1000 Mbps	N/A	2,900.00
10Gbps	N/A	8,500.00

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges (Cont'd)

	Nonrecurring Charge[1]	Monthly Rate
B. Protected Access Line, per line		
Month-to-Month Plan[2]		
100 Mbps	1,300.00	3,600.00
1000 Mbps	1,300.00	6,000.00
Three-Year Term Commitment Plan[3]		
100 Mbps	N/A	3,000.00
1000 Mbps	N/A	5,200.00
Five-Year Term Commitment Plan[3]		
100 Mbps	N/A	2,700.00
1000 Mbps	N/A	4,800.00

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges (Cont'd)

	Nonrecurring Charge[1]	Monthly Rate
C. Premier Access Line, per line		
Month-to-Month Plan[2]		
100 Mbps	1,300.00	1,200.00
1000 Mbps	1,300.00	2,400.00
Three-Year Term Commitment Plan[3]		
100 Mbps	N/A	1,000.00
1000 Mbps	N/A	2,000.00
Five-Year Term Commitment Plan[3]		
100 Mbps	N/A	900.00
1000 Mbps	N/A	1,800.00
D. EMS – Real Time Access Line, per line		
Month-to-Month Plan[2]		
100 Mbps	1,300.00	2,500.00
1000 Mbps	1,300.00	4,500.00
10 Gbps	1,300.00	12,500.00
Three-Year Term Commitment Plan[3]		
100 Mbps	N/A	2,100.00
1000 Mbps	N/A	4,000.00
10 Gbps	N/A	11,000.00
Five-Year Term Commitment Plan[3]		
100 Mbps	N/A	1,900.00
1000 Mbps	N/A	3,700.00
10 Gbps	N/A	10,000.00

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges (Cont'd)

	Nonrecurring Charge[1]	Monthly Rate
E. ERS Virtual Circuit (EVC)		
1. ERS EVC Setup, Per EVC	200.00	N/A
2. ERS EVC Standard (ERS Std), per EVC		
10 Mbps	N/A	50.00
100 Mbps	N/A	100.00
1000 Mbps	N/A	200.00
3. ERS EVC Basic (ERS-B) Bandwidth, per Class		
1 Mbps	N/A	15.00
2 Mbps	N/A	30.00
3 Mbps	N/A	45.00
4 Mbps	N/A	60.00
5 Mbps	N/A	75.00
6 Mbps	N/A	90.00
7 Mbps	N/A	105.00
8 Mbps	N/A	120.00
9 Mbps	N/A	135.00
10 Mbps	N/A	150.00
20 Mbps	N/A	300.00
30 Mbps	N/A	450.00
40 Mbps	N/A	600.00
50 Mbps	N/A	750.00
60 Mbps	N/A	850.00
70 Mbps	N/A	950.00
80 Mbps	N/A	1,050.00
90 Mbps	N/A	1,150.00
100 Mbps	N/A	1,250.00
200 Mbps	N/A	1,350.00
300 Mbps	N/A	1,450.00
400 Mbps	N/A	1,550.00
500 Mbps	N/A	1,650.00
600 Mbps	N/A	1,740.00
700 Mbps	N/A	1,830.00
800 Mbps	N/A	1,920.00
900 Mbps	N/A	2,010.00
1000 Mbps	N/A	2,100.00

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges (Cont'd)

E. ERS Virtual Circuit (EVC) (Cont'd)

4. ERS EVC Priority Data (ERS-PD) Bandwidth, per Class

	Nonrecurring Charge[1]	Monthly Rate
1 Mbps	N/A	40.00
2 Mbps	N/A	80.00
3 Mbps	N/A	120.00
4 Mbps	N/A	160.00
5 Mbps	N/A	200.00
6 Mbps	N/A	220.00
7 Mbps	N/A	240.00
8 Mbps	N/A	260.00
9 Mbps	N/A	280.00
10 Mbps	N/A	300.00
20 Mbps	N/A	600.00
30 Mbps	N/A	900.00
40 Mbps	N/A	1,200.00
50 Mbps	N/A	1,500.00
60 Mbps	N/A	1,720.00
70 Mbps	N/A	1,940.00
80 Mbps	N/A	2,100.00
90 Mbps	N/A	2,300.00
100 Mbps	N/A	2,500.00
200 Mbps	N/A	2,700.00
300 Mbps	N/A	2,900.00
400 Mbps	N/A	3,100.00
500 Mbps	N/A	3,300.00

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 8 – FACILITIES FOR TELECOMMUNICATIONS SERVICES

8.6 TRANSPARENT LAN SERVICE (TLS) (Cont'd)

8.6.7 Rates and Charges (Cont'd)

E. ERS Virtual Circuit (EVC) (Cont'd)

5. ERS EVC Real Time (ERS-RT) Bandwidth, per Class

	Nonrecurring Charge[1]	Monthly Rate
1 Mbps	N/A	120.00
2 Mbps	N/A	240.00
3 Mbps	N/A	360.00
4 Mbps	N/A	480.00
5 Mbps	N/A	600.00
6 Mbps	N/A	660.00
7 Mbps	N/A	720.00
8 Mbps	N/A	780.00
9 Mbps	N/A	840.00
10 Mbps	N/A	900.00
20 Mbps	N/A	1,175.00
30 Mbps	N/A	1,450.00
40 Mbps	N/A	1,725.00
50 Mbps	N/A	2,000.00
60 Mbps	N/A	2,200.00
70 Mbps	N/A	2,400.00
80 Mbps	N/A	2,600.00
90 Mbps	N/A	2,800.00
100 Mbps	N/A	3,000.00

F. TLS Domain/LAN

Extension Equipment Changes, per location, per change	$ 400.00	N/A

1 Applies in lieu of service charges found elsewhere in this product guide or other Company tariffs/product guides.
2 See Minimum Period 8.6.5, B for month-to-month plan.
3 See Termination Liability 8.6.5, E for termination prior to completion of the term commitment period.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE **Page**

9.1.1 General 2
9.1.2 Description of Carrier Common Line 2
9.1.3 Obligations of the Customer 3
9.1.4 Rates Regulation 3
9.1.5 Rates and Charges 9

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE

9.1.1 General

Carrier Common Line charges are applicable in conjunction with Switched Access Service provided in Section 9.2 of this product guide. The Company will provide Carrier Common Line access to IXCs or End Users of Switched Access Services.

9.1.2 Description of Carrier Common Line

A. Description

Carrier Common Line access provides for the use of Company common lines by customers for access to end-users to furnish customer intrastate communications. Carrier Common Line access is provided where the customer obtains Switched Access Service under this product guide.

Premium Access is (1) Switched Access Service provided to IXCs under this product guide which furnish intrastate MTS/WATS, (2) Switched Access Service in an end office converted to equal access (3) Switched Access Service provided to customers as 800 Access Service and (4) Switched Access Service provided to customers as 900 Access Service. All out-of-franchise switched access services provided by Frontier are Premium Access.

B. Limitations

1. Exclusions

   Neither a telephone number nor detail billing is provided with Carrier Common Line access. Additionally, directory listings and intercept arrangements are not included in the rates and charges for Carrier Common Line access.

2. Access Groups

   All line side connections provided in the same access group will be limited to the same features and operating characteristics. All trunk side connections provided in the same access group will be limited to the same features and operating characteristics.

3. Switched Access Interface Arrangements (WATS Access Lines)

   Where Switched Access Services are connected with Dedicated Access Services at Company designated WATS Serving Offices for the provision of WATS/WATS-type Services, Switched Access Service minutes which are carried on that end of the service (i.e., originating minutes for outward WATS/WATS-type services and terminating minutes for inward WATS/WATS-type services) shall not be assessed Carrier Common Line per minute charges.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE (Cont'd)

9.1.3 Obligations of the Customer

A. Switched Access Service Requirement

The Switched Access Service associated with Carrier Common Line access shall be ordered by the customer under other sections of this product guide.

B. Supervision

The customer facilities at the premises of the ordering customer shall provide the necessary on-hook and off-hook supervision.

9.1.4 Rate Regulations

A. Description and Application of Rates

1. Billing of Charges

Carrier Common Line charges will be billed to each Switched Access Service provided under this product guide in accordance with the regulations as set forth in 9.1.4 A.4 following, except as set forth in 9.1.4 A.3 and 9.1.4 C.4 following.

2. Measuring and Recording of Access Minutes of Use

When access minutes are used to determine Carrier Common Line charges, they will be accumulated using call detail recorded by Company equipment. The Company measuring and recording equipment will be associated with end office or access tandem switching equipment and will record each originating and terminating access minute, as described in the Frontier Southwest Incorporated TXG Texas Facilities For State Access Tariff, Section 4.5.2(O), where answer supervision is received. The accumulated access minutes will be summed on a line-by-line or trunk-by-trunk basis, by access group or by end office, whichever type of account is used by the Company, for each customer and then rounded to the nearest minute.

3. Mixed Interstate and Intrastate Usage

When the customer reports interstate and intrastate use of Switched Access Service, Carrier Common Line charges, as set forth in 9.1.5, will be billed only to intrastate Switched Access Service access minutes based on the data reported by the customer, as set forth in the Frontier Southwest Incorporated TXG Texas Facilities For State Access Tariff, Section 4.5.2(J), except where the Company is billing according to actual usage by jurisdiction. Intrastate Switched Access Service access minutes will, after adjustment as set forth in 9.1.4 A.3, when necessary, be used to determine Carrier Common Line charges as set forth in 9.1.4 A.4 following.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE (Cont'd)

9.1.4 Rate Regulations (Cont'd)

A. Description and Application of Rates (Cont'd)

4. Determination of Charges

(a) Terminating access, per minute charge(s) apply to:

- all terminating access minutes of use;

- All originating access minutes of use associated with calls placed to Service Access Code numbers, less those originating access minutes of use associated with calls placed to 500, 700, 800, 866, 877, 888 and 900 numbers for which the customer furnishes a report of either the number of minutes or a report of the percent of minutes that terminate to a subscriber or common line, rather than a dedicated access line. This report will be provided by the customer on a quarterly basis, indicating for each month thereof or quarter, the information as set forth preceding in order to calculate the common line charges.

The customer will provide a report indicating separate common line information for 500, 700, 800, 866, 877, 888 and 900 access minutes, at a statewide level and by jurisdiction. This report shall also include the applicable Access Customer Name Abbreviation (ACNA).

The report will be based on the calendar year and will be due by the 15th day of the month preceding the quarter for which it is to be applied in order to become effective with the first full month of usage. Should the report be received after the 15th day of the month, the Company will make every effort to process the report as set forth above. When received by the Company as described herein, the quarterly report will be used for calculating common line charges on a current bill basis for the next three months usage.

Prorating or back billing will not occur based on the report. Any under or over estimation should be reflected in the subsequent quarterly report.

If a billing dispute arises concerning the customer provided report, the Company will request the customer to provide the data used to develop the report. The Company will not request such data more than once a year. The customer shall supply the data within 30 days of the Company's request.

In the event the customer fails to provide a quarterly report, the Company will use the previously reported information to calculate the common line charges.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE (Cont'd)

9.1.4 Rate Regulations (Cont'd)

A. Description and Application of Rates (Cont'd)

4. Determination of Charges (Cont'd)

(b) The originating access per minute charge(s) apply to:

- all originating access minutes of use;
- less all originating access minutes of use associated with calls placed to Service Access Code numbers;
- plus all originating access minutes of use associated with calls placed to 500, 700, 800 866, 877, 888 and 900 numbers for which the customer furnishes a report of either the number of minutes or a report of the percent of minutes that terminate to a subscriber or common line, and for which a corresponding reduction in the number of terminating access minutes of use has been made as set forth in 9.1.4 A.4.(a) preceding.

B. Determination of Usage Subject to Carrier Common Line Charges

Except as set forth herein, all Switched Access Service provided to the customer will be subject to Carrier Common Line charges.

1. Determination of Jurisdiction

When the customer reports interstate and intrastate use of Switched Access Service, the associated Carrier Common Line charges for intrastate usage will be determined as set forth in 9.2.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.1 CARRIER COMMON LINE (Cont'd)

9.1.5 Rate and Charges

The rates for Carrier Common Line are:

	Rate Per Access Minute
Premium	
Originating	$ 0.0010192
Terminating	0.0000000

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.2 SWITCHED ACCESS **Page**

9.2.1 General 12
9.2.2 Rates and Charges 12

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.2 SWITCHED ACCESS

9.2.1 General

Frontier Southwest Incorporated in its capacity as a Competitive Local Exchange Carrier (Frontier CLEC) assents to, adopts, and concurs in the conditions and regulations regarding Feature Groups B, D and Service Access Codes services and their associated transport services and optional services contained in the Frontier Southwest Incorporated TXG Texas Facilities For State Access Tariff including amendments and successive issues of such tariff. The Company hereby makes itself a party to the provisions of such tariff until this authority is revoked by cancellation of this adoption notice. By making itself a party, the Company furnishes facilities for intrastate access service originating or terminating at a point within the out-of-franchise area served by the Company.

9.2.2 Rates and Charges

A. Switched Access Arrangements

		First NXX Per ASR/Per End Office	Each Additional NXX Per ASR/Per End Office
1.	**500 NXX Translation Charge**	$22.00	$11.00
2.	**Network Blocking Charge**		Per Call
	Applies to FGD		$0.036

B. Switched Transport Arrangement

1.	**Reserved for Future Use**	
2.	**Transport (Orig. and Term.)**[1]	Monthly Recurring Charge
	Per Access Minute	$0.0005074

Note 1: Transport rate includes both Tandem Switching and Tandem Switched Transport per Originating and per Terminiating MOU.

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.2 SWITCHED ACCESS

9.2.2 Rates and Charges (Cont'd)

B. Switched Transport Arrangements (Cont'd)

	Non Recurring Charge	Monthly Recurring Charge
5. Direct Trunked Transport Facility-Voiceband		
Installation Charge	$206.68	
Per Airline Mile		$ 2.11
6. Direct-Trunked Transport Facility – DS1		
Installation Charge	$418.04	
Per Airline Mile		$ 5.59
Termination, per month		52.73
7. Direct-Trunked Transport Facility – DS3		
Installation Charge	$490.16	
Per Airline Mile		$ 86.29
Termination, per month		718.67
8. Entrance Facility –2-Wire and 4-Wire Voiceband		
Per 2W or 4W Voice Grade Channel	$261.33 (R)	
2-Wire Voiceband		$ 21.60
4-Wire Voiceband		$ 39.39
9. Entrance Facility DS1		
First DS1	$716.47 (R)	$116.86
Additional DS1, each	468.30 (R)	116.86
10. Entrance Facility DS3 (Optical or Electrical)		
First DS3	$667.63 (I)	$1,582.93
Additional DS3, each	667.63 (I)	1,582.93

SECTION 9 – CARRIER COMMON LINE AND SWITCHED ACCESS

9.2 SWITCHED ACCESS

9.2.2 Rates and Charges (Cont'd)

B. Switched Transport Arrangements (Cont'd)

11. Multiplexing	Installation Charge	Monthly Recurring Charge
DS1 to Voice, per multiplexer	$ 0.00	$172.93
D\ to DS1, per multiplexer	120.38	$728.67
Additional DS1, each	$474.45	$125.77

C. End Office Services

1. Local Switching Usage		Monthly Recurring Charge
Premium		
EOS1		
Originating		$0.0065579
Terminating		0.0000000
Composite Terminating End Office Charge Per Terminating Minute of Use	Rates Per Access Minute $ 0.000000	
2. 800 Data Base Query Charge		
Per Query		$0.0032670

D. Carrier Identification Parameter

	Installation Charge	Monthly Recurring Charge
Per CIC, per end office trunk group	$ 83.00	
Per CIC, per access tandem direct trunk group	1,120.00	
Per Trunk		$0.46