

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Title Page 1

Effective: November 1, 2018

#### **ACCESS SERVICE**

Interstate Service Guide and Pricelist for Customers of Detariffed Access Services within the operating territories listed on the Title Pages

# **LEGAL NOTICE**

The FRONTIER Interstate Service Guide and Price List (Guide) applies to the FRONTIER "Detariffed Services" (as defined below) and other telecommunications services that are set forth in this Service Guide.

Detariffed Services, as described in this document, are interstate special access services for which tariffs were withdrawn pursuant to FCC Report and Order, FCC 17-43, released April 28, 2017.

Beginning upon the effectiveness of the withdrawal of Detariffed Service tariffs, Detariffed Services will be subject to and provided pursuant to the rates, terms and conditions of this Service Guide, unless a separately executed service agreement between you and Frontier provides otherwise.

Prospective customers wishing to purchase services at the rates, terms and conditions in the Service Guide may do so by initiating orders through the same processes used to order services from FRONTIER's interstate access tariffs.

Service that is ordered without a separately executed service agreement between you and FRONTIER that applies to that order, will also be subject to the FRONTIER Interstate Access Service Agreement at <a href="https://wholesale.frontier.com/-/media/WholesaleDocs/frontier-interstate-access-service-agreement.ashx">https://wholesale.frontier.com/-/media/WholesaleDocs/frontier-interstate-access-service-agreement.ashx</a>.

The services described in the Service Guide may be available through negotiated agreements, which may include rates, terms or conditions more favorable to you than those in the Service Guide. Prospective customers wishing to purchase Service Guide services at rates, terms or conditions different from those described in the Service Guide and the applicable FRONTIER Interstate Access Service Agreement may contact their FRONTIER service representative or go to the FRONTIER website at <a href="https://wholesale.frontier.com/pricing-guides/interstate-service-guide">https://wholesale.frontier.com/pricing-guides/interstate-service-guide</a>.

FRONTIER reserves the right to change the rates, terms and conditions in the Service Guide from time to time. Notification of Service Guide changes will be made available at the FRONTIER website.

DISCLAIMER: THIS DOCUMENTATION IS FOR INFORMATIONAL PURPOSES ONLY AND DOES NOT OBLIGATE FRONTIER TO PROVIDE SERVICES IN THE MANNER DESCRIBED IN THIS DOCUMENT. FRONTIER RESERVES THE RIGHT AS ITS SOLE OPTION TO MODIFY OR REVISE THE INFORMATION IN THIS DOCUMENT AT ANY TIME WITHOUT PRIOR NOTICE. IN NO EVENT SHALL FRONTIER OR ITS AGENTS, EMPLOYEES, DIRECTORS, OFFICERS, REPRESENTATIVES OR SUPPLIERS BE LIABLE UNDER CONTRACT, WARRANTY, TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE OF FRONTIER), OR ANY OTHER LEGAL THEORY, FOR ANY DAMAGES ARISING FROM OR RELATING TO THIS DOCUMENT OR ITS CONTENTS, EVEN IF ADVISED OF THE POSSIBLITY OF SUCH DAMAGES.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Title Page 1

## Interstate

Regulations, rates, and charges applicable to interstate communications services for customers within the operating territories of:

FRONTIER COMMUNICATIONS OF THE SOUTHWEST INC. in the States of Arizona (AZ), California (CA), and Nevada (NV);

FRONTIER NORTH INC. in the States of Illinois (IL), Indiana (IN), Michigan (MI), Ohio (OH), and Wisconsin (WI);

(D) (D)

Effective: May 1, 2020

FRONTIER COMMUNICATIONS OF THE CAROLINAS INC. in the States of Illinois (IL), North Carolina (NC), and South Carolina (SC);

FRONTIER WEST VIRGINIA INC. in the State of West Virginia (WV); and

FRONTIER MIDSTATES INC. in the States of Indiana (IN) and Michigan (MI).

Service is furnished by means of wire, terrestrial microwave radio, optical fibers, satellite circuits, or a combination thereof.



# INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8

Effective: November 1, 2018

Original Page 1

# TABLE OF CONTENTS

		<u>Page</u>
	9	
	Contents	
	rmat	
Concurrin	ng, Connecting, and Other Participating Carriers	4
	on of Symbols	
	e to Other Tariffs	
	e to Other Publications	
Application	on of Guide	8
Section 1	- Definition of Terms and Abbreviations	1-1
Section 2	- Regulations	2.1
2.1	Undertaking of Carrier	
2.1	Limitations on Service	
2.2	Limitations on Liabilities	
2.4	Cancellation or Discontinuance of Service by Company	
2.5	Cancellation or Termination of Service by Customer	
2.6	Reserved for Future Use	
2.7	Restoration of Service	
2.8	Payment and Billing	
2.9	Deposits	
2.10	Taxes	
2.11	Terminal Equipment	
2.12	Interconnection	
2.13	Inspection, Testing and Adjustment	
2.14	Interruption of Service	
2.15	Provision of Service	
2.16	Special Construction	
2.17	Service Response Credits (SRC)	
Section 3	- General	3-1
3.1	Availability of Service	
3.2	Commingling	3-1
3.3	Facilities Hub	
Section 4	- Connection Charges	4-1
4.1	Ordering Charges	
4.2	Requests for Expedition	
43	Moves	4-2



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Effective: November 1, 2018

Original Page 2

# TABLE OF CONTENTS (Continued)

Cootion F	Description of Data Compiese and Datas	Page 5 4
Section 5	- Description of Data Services and Rates	5-1
PAR <sup>-</sup>	ГІ	
5.1	Reserved for Future Use	5-2
5.2	Reserved for Future Use	
5.3	Ethernet LAN Service	
5.4	Reserved for Future Use	
5.5	Reserved for Future Use	5-30
5.6	Reserved for Future Use	5-30
5.7	Reserved for Future Use	5-30
5.8	Exchange Access Frame Relay Service	5-31
5.9	Exchange Access Asynchronous Transfer Mode Cell Relay Service I	5-58
5.10	Asynchronous Transfer Mode Cell Relay Service	5-72
DVD.	T II	
PAR <sup>-</sup> 5.1	Reserved for Future Use	E 107
5.1 5.2	Reserved for Future Use	
5.2 5.3	Reserved for Future Use	
5.3 5.4	Reserved for Future Use	
5.4 5.5	Reserved for Future Use	
5.5 5.6	Reserved for Future Use	
5.7	Reserved for Future Use	
5.8	Reserved for Future Use	
5.9	Frame Relay III	
	Asynchronous Transfer Mode Cell Relay Service (ATM CRS)	
	Ethernet LAN Service	
Section 6	- Promotions	6-1
<b>.</b>		
Section 7	Operating Territories of Frontier Telephone Companies	7-1
Section 8	- Specialized Service or Arrangements	8-1



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Effective: November 1, 2018

Original Page 3

## **GUIDE FORMAT**

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 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.

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)



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 4

# CONCURRING, CONNECTING, AND OTHER PARTICIPATING CARRIERS

# **CONCURRING CARRIERS**

No Concurring Carriers

# **CONNECTING CARRIERS**

No Connecting Carriers

# **OTHER PARTICIPATING CARRIERS**

No Other Participating Carriers



(Z)

## Frontier Telephone Companies

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5

## **EXPLANATION OF SYMBOLS**

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

(C) To signify a changed regulation (D) To signify a discontinued rate or regulation (I) To signify an increase in rate or charge To signify material relocated from one page to another without change (M) To signify a new rate or regulation (N) (R) To signify a reduced rate or charge (S) To signify a reissued matter (T) To signify a change in text but no change in rate or regulation

To signify a correction



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Effective: November 1, 2018

Original Page 6

#### REFERENCE TO OTHER TARIFFS

Whenever reference is made in this Guide to other tariffs, the reference is to the tariffs in force as of the effective date of this Guide, and to amendments thereto and successive issues thereof.

#### REFERENCE TO OTHER PUBLICATIONS

The following technical publications are referenced in this Guide and may be obtained from Telcordia, 8 Corporate Place, PYA3C-184, Piscataway, NJ 08854.

Technical Reference:

GR-253-CORE, Issue 3

Issued: September, 2000 Available: September, 2000

GR-499-CORE, Issue 2

Issued: December, 1998 Available: December, 1998

TR-NWT-001112, Issue No. 1

Issued: December, 1994 Available: December, 1994

GR-1110-CORE, Issue 1

Issued: September, 1994 Available: September, 1994

GR-1248-CORE, Issue 2

Issued: September, 1995 Available: September, 1995

SR-3330. Issue 1

Issued: November, 1994 Available: November, 1994

TR-INS-000342

Issued: February, 1991 Available: February, 1991

TR-TSV-061370, Issue 1

Issued: May 1993 Available: May 1993

The following technical publications are referenced in this Guide and may be obtained from Telcordia Routing Administration, 8 Corporate Place, PYA3N-141, Piscataway, NJ 08854-4156, 1(866)672-6997.

Technical Reference:

The Local Exchange Routing Guide (LERG), Issued: April 1, 2007, and as issued from time to time



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Effective: November 1, 2018

Original Page 7

## REFERENCE TO OTHER PUBLICATIONS, (Continued)

Technical Reference: (Continued)

The following publication, referenced in this Guide, may be obtained from ATM Forum, 2570 West El Camino Real, Suite 304, Mountain View, CA 94040 or on the Internet at <a href="http://www.atmforum.com">http://www.atmforum.com</a>.

ATM Forum, ATM User Network Interface Specifications,

Version 3.0, af-uni-0010.001

Issued: September, 1993 Available: September, 1993

ATM Forum, ATM User Network Interface Specifications,

Version 3.1, Af-uni-0010.002

Issued: September 10, 1994 Available: September 10, 1994

ATM Forum, Interim Inter-switch Signaling Protocol,

af-pnni-0026.000

Issued: December, 1994 Available: December, 1994

The following publications are referenced in this Guide and may be obtained from the American National Standards Institute (ANSI), 11 West 42<sup>nd</sup> Street, New York, New York 10036, Telephone No. 212 642-4900 or on the internet at www.ansi.org.

IEEE802.3-2002 Issued/Available: March 8, 2002

IEEE802.1Q Issued/Available: 1998

ANSI T1.105-1995, Synchronous Optical Network (SONET) Basic

Description Including

Multiplex Structures, Rates,

and Formats Available: 1995

T1.606-1990 Issued/Available: 1990
T1.606, Addendum 1 Issued/Available: 1991
T1.606a Issued/Available: 1992
T1.606b Issued/Available: 1993
T1.617, Annex D Issued/Available: 1992



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 8

Effective: May 1, 2020

#### APPLICATION OF TARIFF

This Guide contains the regulations, rates and charges applicable to the provision of interstate communications services by Frontier Telephone Companies between domestic points within the United States, subject to the jurisdiction of the Federal Communications Commission ("Commission").

References in this Guide to Interstate Special Construction Tariff are made to the following tariff as effective in its respective territories:

Tariff FCC No. 7

for Frontier Communications of the Southwest Inc., Frontier North Inc., Frontier Communications of the Carolinas Inc., (C) Frontier West Virginia Inc., and Frontier Midstates Inc.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 1-1

#### SECTION 1 - DEFINITION OF TERMS AND ABBREVIATIONS

The following are definitions of generally used terms in this Guide. Service specific definitions may be found in Section 5 of this Guide.

CELL DELAY VARIATION TOLERANCE - Cell Delay Variation Tolerance (CDVT)is the amount of variation permitted for early arrival of clusters of cells at the source User Network Interface (UNI). Cells exceeding the tolerance will be declared non-conformant and will be discarded.

COMMISSION - The Federal Communications Commission.

COMPANY - FRONTIER TELEPHONE COMPANIES, unless otherwise clearly indicated by the context.

CONSTANT BIT RATE - Constant Bit Rate (CBR) is a steady flow of user information required to support applications where variable delays in transmission would negatively impact the information content. CBR is the highest priority traffic on the network. Examples of applications requiring CBR are voice and some types of video.

CUSTOMER - Any person, firm, partnership, corporation or other entity who subscribes to or uses service under the terms and conditions of this Guide. Customer is responsible for the payment of charges for service offered by the Company which are subscribed to or used by Customer. Customer is also responsible for payment of charges for a third person's use of service to which Customer subscribes.

CUSTOMER SITE or PREMISES - A single physical location where the Company's facilities terminate to the Customer's equipment or facilities.

DEDICATED SONET RING (DSR) ATM PORT - DSR is a private Company provided SONET network dedicated to a specific Customer. A DSR ATM Port is a connection to the network-based ATM switch from a DSR network, and requires that the IDSR Extension be terminated in the central office where the ATM switch is located.

DEDICATED SONET SERVICE - The term "Dedicated SONET Service" denotes a Company family of SONET based services that have a high level of performance guarantee.

ELIGIBLE TELECOMMUNICATIONS CARRIER - A carrier who may obtain services at wholesale rates pursuant to 47 U.S.C. §251(c)(4).

ETHERNET – A protocol provided over various media reflecting the two lowest layers of the Digital Network Architecture/Open Systems Interconnections (DNA/OSI) standard. This protocol provides for connectivity of computers, printers, workstations, terminals and other devices across Local Area Networks and Wide Area Networks (LANs & WANs). DNA/OSI standards are maintained by the American National Standards Institute.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 1-2

### SECTION 1 - DEFINITION OF TERMS AND ABBREVIATIONS (Continued)

HUB - A Company designated serving wire center which is equipped to provide service.

INDIVIDUAL CASE BASIS (ICB) – The term "Individual Case Basis" denotes a condition in which the regulations, if applicable, rates and charges for an offering under the provisions of this Guide are developed based on the circumstances in each case.

INTERIM INTER-SWITCH SIGNALING PROTOCOL- Interim Inter-switch Signaling Protocol (IISP), which is similar to the User Network Interface (UNI), allows inter-network connectivity through the use of Switched Virtual Circuits.

LOCAL ACCESS AND TRANSPORT AREA (LATA) – The term "Local Access and Transport Area" denotes a geographic area established for the provision and administration of communications service. It encompasses one or more designated exchanges, which are grouped to serve common social, economic and other purposes.

MAXIMUM BURST SIZE (MBS) - The term "Maximum Burst Size" denotes the consecutive number of ATM cells that can enter the ATM Cell Relay Service network above the Sustained Cell Rate level and below the Peak Cell Rate level.

METROPOLITAN STATISTICAL AREA (MSA) – The term "Metropolitan Statistical Area (MSA)" denotes a prescribed geographic area comprised of Company wire centers which have been grouped together.

NETWORK INTERFACE DEVICE (NID) – The term "Network Interface Device" denotes any Company provided means of interconnection of end user customer premises wiring to the Local Exchange Carrier's distribution plant, such as a cross connect device used for that purpose.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-1

#### **SECTION 2 - REGULATIONS**

# 2.1 Undertaking of Carrier

- 2.1.1 Service is furnished for interstate communications originating or terminating at specified points within Company's operating territory as defined in Section 4.1, following.
- 2.1.2 Company shall provide service in accordance with the terms and conditions set forth in this Guide.
- 2.1.3 Company may, when authorized by Customer and agreed to by Company, act as Customer's agent for ordering facilities provided by other carriers to allow connection of Customer's locations to Company's network or to the network of an underlying carrier or service.
- 2.1.4 Company will pass on and bill to Customer any charges it incurs (including applicable recurring and nonrecurring charges and any time and material charges) from other service providers, such as ILECS and CLECS, necessary to complete provision of a service offered in this Guide to Customer's designated premises.
- 2.1.5 Service is provided on a monthly basis unless ordered on a longer term basis, and is available 24 hours per day, seven days per week.

#### 2.2 Limitations on Service

- 2.2.1 Service is offered subject to the availability of the necessary facilities and equipment and subject to the provisions of this Guide.
- 2.2.2 Company 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 Guide, or for nonpayment by Customer.
- 2.2.3 Customer may not transfer or assign the use of any service provided under this Guide without the prior written consent of Company. All regulations and conditions contained in this Guide, as well as any additional conditions for service, shall apply to any and all such permitted assignees or transferees. Except and to the extent that applicable laws or regulation require such notice, Company may assign its rights and obligations hereunder in whole or in part without notice to Customer.

Effective: November 1, 2018

#### SECTION 2 - REGULATIONS (Continued)

### 2.2 Limitations on Service (Continued)

- 2.2.4 Service may not be used for any unlawful purpose.
- 2.2.5 Company may require Customer to sign an application form furnished by Company and to establish credit as provided in this Guide, as a condition precedent to the initial establishment of service. Company's acceptance of an order for service to be provided to an applicant whose credit has not been duly established may be subject to the deposit provisions described in Section 2.9 of this Guide. Company may also require a signed authorization from Customer for additions to or changes in existing service for Customer.

#### 2.3 Limitations on Liabilities

- 2.3.1 The liability of Company for damages is limited to liability arising solely and directly from mistakes, omissions, interruptions, delays, errors, or defects in transmission occurring in the course of furnishing service that are not caused in whole or in part by acts or omissions of any other person, and shall in no event exceed an amount equal to the charges Company would assess Customer during the period during which mistakes, omissions, interruptions, delays, errors, or defects in transmission occurred.
- 2.3.2 Company shall not be liable for unlawful use, or use by any unauthorized person, of its service, or for any claim arising out of a breach in the privacy or security of communications transmitted by Company.
- 2.3.3 Company shall not be liable for any failure of performance due to causes beyond its reasonable control, including but not limited to acts of God, fires, meteorological phenomena, floods, or other catastrophes, national emergencies, insurrections, riots or wars, strikes, lockouts, work stoppages or other labor difficulties, and any law, order, regulation, or other action of any governing authority or agency thereof. With respect to the services, Company hereby expressly disclaims all warranties, expressed or implied, not stated in this Guide, and in particular disclaims all warranties of merchantability and fitness for a particular purpose.
- 2.3.4 Company shall not be liable for any act or omission of other carriers or persons, including carriers or persons whose facilities may be utilized in establishing connections to Company's facilities. Customer shall indemnify and save harmless Company from any third party claims asserting such liability.
- 2.3.5 Company shall not be liable for any damages Customer may incur as a result of the unauthorized use the services provided under this Guide. Customer is responsible for controlling access to, and the use of, the services provided by Company.

# SECTION 2 - REGULATIONS (Continued)

## 2.4 Cancellation or Discontinuance of Service by Company

Without incurring any liability, Company may under the following conditions cancel service prior to commencement. Company may also discontinue service that is being furnished, provided that, unless otherwise stated, Customer shall be given fifteen (15) days written notice of such cancellation or discontinuance of service.

- 2.4.1 For noncompliance with or violation of any applicable municipal, state, or federal law, ordinance or regulation or noncompliance with or violation of any Commission regulation, provided that no notice may be given.
- 2.4.2 For Customer's refusal to provide reasonable access to Company or its agents for the purpose of installation, inspection or maintenance of equipment owned by Company.
- 2.4.3 For noncompliance with any of the provisions of this Guide.
- 2.4.4 For nonpayment of any sum due Company for more than thirty (30) days after delivery of an invoice to the custody of the U.S. Mail or other delivery service.
- 2.4.5 Without notice, in the event of Customer's use of equipment in such a manner as to adversely affect Company's equipment or its provision of service to others.
- 2.4.6 Without notice, in the event of unauthorized or fraudulent use of service. Whenever service is discontinued for unauthorized use of service, Company may, before restoring service, require Customer to make, at its own expense, all changes to its facilities or equipment necessary to eliminate unauthorized use and to pay to Company an amount reasonably estimated by Company as the loss in revenues to Company resulting from such unauthorized use plus claims lodged against Company by third parties.
- 2.4.7 Without notice, by reason of any order or decision of a court or other government authority having jurisdiction that prohibits Company from furnishing service to Customer.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-4

# SECTION 2 - REGULATIONS (Continued)

- 2.5 Cancellation or Termination of Service by Customer
  - 2.5.1 Customer may cancel service by giving notice to Company up to the day service is scheduled to commence subject to payment of any applicable early termination charges.
  - 2.5.2 If Customer orders service which requires special construction or facilities for Customer's use, and then cancels its order before service begins, a charge shall be made to Customer for the nonrecoverable portions of the expenditures or liabilities incurred on behalf of Customer by Company. This charge may be in addition to any other applicable early termination charges.
  - 2.5.3 Company shall have up to thirty (30) days to complete a disconnect. Customer shall be responsible for all charges for 30 days, or until the disconnect is effected, whichever is sooner. This 30-day period shall begin on the day of receipt of a disconnection notice from Customer.
- 2.6 Reserved for Future Use
- 2.7 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.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-5

## SECTION 2 - REGULATIONS (Continued)

### 2.8 Payment and Billing

- 2.8.1 For billing of fixed charges, service is considered to be established upon the day on which Company notifies Customer of installation or testing of Customer's service. Fixed charges shall be billed monthly in advance and are due upon receipt. Customer shall be billed for all usage in arrears. Rate changes shall be effective on the effective date of the rate change.
- 2.8.2 Bills are due and payable upon receipt. Interest at the lesser of a rate of one and one-half percent (1.5%) per month, or the maximum rate allowed by law, may be charged on any amount remaining unpaid after thirty (30) days from delivery of an invoice to the custody of the U.S. Mail or other delivery service.
- 2.8.3 The security of Customer's authorization or access code is the responsibility of Customer. Customer shall be responsible for payment of all charges applicable to the service, including in cases where the service was accessed in a manner not authorized by Customer.
- 2.8.4 Company reserves the right to examine the credit record of an applicant or Customer. A Customer whose service has been discontinued for nonpayment of bills shall be required to pay any unpaid balance due to Company before service is restored, and a deposit may be required.
- 2.8.5 Company shall make no refund of overpayments by Customer unless the claim for such overpayment, together with proper evidence, is submitted within two (2) years from the date of the alleged overpayment. In calculating refunds, any applicable discounts shall be adjusted based upon the actual monthly usage after all credits or adjustments have been applied.
- 2.8.6 A charge shall apply whenever any check or draft for payment for service is not accepted by the institution on which it is written.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-6

## SECTION 2 - REGULATIONS (Continued)

### 2.9 Deposits

- 2.9.1 Each applicant for service may be required to establish credit. Any applicant whose credit has not been duly established may be required to make a deposit to be held as a guarantee of payment of charges at the time of application. In addition, an existing Customer may be required to make a deposit or increase a deposit presently held. Company shall pay interest on deposits if and to the extent required by applicable law.
- 2.9.2 A deposit shall not exceed the estimated charges for three (3) month's service plus installation, and shall be returned:
  - When an application for service has been canceled prior to the establishment of service. Such deposit shall be applied to any applicable charges, and the excess portion of the deposit shall be returned.
  - At the end of twelve (12) consecutive months of a satisfactory credit history.
  - Upon the discontinuance of service. Company shall apply Customer deposit against any outstanding balances due. If a credit balance exists, a refund shall be made to Customer.

The fact that a deposit has been made in no way relieves Customer from complying with the regulations with respect to the prompt payment of bills on presentation.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-7

## SECTION 2 - REGULATIONS (Continued)

#### 2.10 Taxes

- 2.10.1 Service may be subject to Federal, state and/or local taxes at the prevailing rates. Such taxes are listed as separate line items on Customer's invoice, are not included in the rates and charges listed herein, and shall be paid by Customer in addition to the rates and charges stated in this Guide.
- 2.10.2 To the extent that a municipality, other political subdivision or local agency of government, or the Commission, imposes upon and collects from Company a gross receipts tax, occupation tax, license tax, permit fee, franchise fee, regulatory or other fee, such taxes and fees shall, insofar as practicable, be billed pro rata to Customers receiving service within the territorial limits of such municipality, other political subdivision, or local or Federal government or agency.
- 2.10.3 Company may adjust its rates and charges or impose additional rates and charges on its Customers in order to recover amounts it is required by governmental or quasi-governmental authorities to collect from or pay to others in support of statutory or regulatory programs. Examples of such programs include, but are not limited to, the Universal Service Fund (USF). Imposition, billing and collection of such rates and charges are subject to billing and other system changes by Company.
  - A. For Recovery of Contributions Paid by Company to the FUSF
    Telecommunications services provided by Company are subject to an
    undiscountable monthly FUSF Surcharge, payable by Customer. The FUSF
    Surcharge shall be calculated as follows: The gross amounts (exclusive of taxes)
    attributable to interstate and international services billed to Customer by
    Company multiplied by 15.3%. The FUSF Surcharge will not be assessed to the
    extent Company is not assessed a fee on the billed charges.

Customers may certify exemption from FUSF Surcharges at the ACNA level or at the BAN level. Certification at the ACNA level will exempt all BANs under that ACNA. Certification at the BAN level will exempt only the specified BANs. Customers may complete and submit the FUSF Surcharge exemption certificate which is available from Frontier's Wholesale Operations Website at: https://wholesale.frontier.com/wholesale/billing/forms.

## SECTION 2 - REGULATIONS (Continued)

## 2.11 Terminal Equipment

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

#### 2.12 Interconnection

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

#### 2.13 Inspection, Testing and Adjustment

- 2.13.1 Company may, with or without notice, make such tests and inspections as may be necessary to determine whether tariff requirements are being complied with in the installation, operation, and maintenance of Customer's or Company's equipment or services. Company may, without notice, interrupt service at any time, as necessary, because of a departure from any of these requirements and may continue such interruption until its requirements have been satisfied.
- 2.13.2 Upon reasonable notice, the facilities provided by Company shall be made available to Company by Customer for such tests and adjustments as may be necessary for their maintenance to a condition satisfactory to Company.
- 2.13.3 Company shall not be liable to Customer for any damages for service interruption pursuant to this Section.

## SECTION 2 - REGULATIONS (Continued)

### 2.14 Interruption of Service (Continued)

- 2.14.1 It shall be the obligation of Customer to notify Company of any interruption of service. Before giving such notice, Customer shall ascertain that the trouble is not being caused by any action or omission of Customer or is not in wiring or equipment connected to the terminal of Company. Company's liability for service interruption is limited according to the provisions of Section 2.3.
- 2.14.2 When service is interrupted for four hours or more, Company will, upon request by Customer, issue a credit, computed as set forth below, provided such interruption is not determined by Company to have been caused by the negligence or willful action of Customer, or any other person at Customer's terminal location, or by the failure of Customer's equipment or power supply.
- 2.14.3 Credit is computed by multiplying the monthly rate for service by the ratio that the number of hours in the period of interruption bears to 720 hours. For the purpose of this computation, each month shall be considered to have 720 hours. The credit shall be based upon the non-usage charges for the month during which the interruption occurred, excluding equipment and access line charges.
- 2.14.4 An interruption is measured from the time Company detects trouble or Customer notifies Company of the interruption by an expeditious means, until the trouble is cleared. Each interruption is considered separately for the purposes of establishing credit allowance. No credit shall be given for an interruption of service of less than four hours. The credit for a billing period shall not exceed the monthly rate.
- 2.14.5 When a service qualifies for Service Response Credits as set forth in Section 2.17 following, credit for an interruption in service under this Section 2.14 does not apply.
- 2.14.6 Credit for interruption of service does not apply when such credit is limited under the rates, terms and conditions of the specific service involved.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-10

# SECTION 2 - REGULATIONS (Continued)

#### 2.15 Provision of Service

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

#### 2.16 Special Construction

When Company determines that the installation of service meets the guidelines of the special construction tariffs, the customer is notified and conditions are negotiated as prescribed by the special construction tariff. A joint planning meeting between customer and Company may be held to minimize any special construction charges.

The regulations, rates and charges for interstate special construction are set forth in the tariff defined under Application of Tariff section preceding. The Special Construction rates and charges are in addition to the regulations, rates and charges specified in this Guide.



Effective: November 1, 2018



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-11

## SECTION 2 - REGULATIONS (Continued)

## 2.17 Service Response Credits (SRC)

2.17.1. The following lists the services that are subject to optional SRCs:

(A) Exchange Access FRS Part I, Section 5.8

Exchange Access ATM CRS II Part I, Section 5.10

Frame Relay III Part II, Section 5.9

ATM CRS Part II, Section 5.10

(B) National ELS Part I, Section 5.3

National ELS Part II, Section 5.11

2.17.2. Service Response Credits apply to the following categories:

- On Time Provisioning
- Mean Time to Repair (MTTR)
- Network Availability

The Service Response Credits apply against the following rate elements:

ATM CRS UNI Port with Access Line Connection ATM CRS IISP Port with Access Line Connection

FRS UNI Port With Access Line Connection

National ELS Ethernet Virtual Circuit (EVC)



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-12

#### SECTION 2 - REGULATIONS (Continued)

### 2.17 Service Response Credits (SRC)

#### 2.17.3. General

- (A) Maximum Amounts of Service Response Credits
  - (1) Services listed in Section 2.17.1(A) preceding

The combined total of any Service Response Credits applied to an individual service may not exceed the following thresholds:

- a. For any calendar month, the total monthly recurring charges billed to the customer of record for qualifying individual rate element(s) for that month.
- b. For any calendar year, ten percent (10%) of the total annual revenue of the prior calendar year billed to the customer of record for qualifying rate elements, or \$200,000 per individual service, whichever is the lesser. For any calendar year in which a Customer did not have qualifying service in the prior calendar year, \$75,000 per individual service.
- (2) Services listed in Section 2.17.1(B) preceding
  - a. For any calendar month, the total SRCs for a qualifying individual rate element shall not exceed twenty percent (20%) of the monthly recurring charge billed to the customer of record for that qualifying individual rate element for that month. This limitation shall apply even if Customer was eligible for SRCs for a rate element under more than one metric. For instance, if for a rate element for a calendar month Customer was eligible for SRCs under two metrics (such as MTTR and Network Availability), the SRC due to Customer would be limited to 20% of the monthly recurring charge billed to Customer for that rate element for that month, even though the total of the SRCs provided for in the two metrics when added together would be 40% of the monthly recurring charge billed to Customer for that rate element for that month.
  - b. The combined total of any Service Response Credits applied to an individual service may not exceed the following threshold: For any calendar year, ten percent (10%) of the total annual revenue of the prior calendar year billed to the customer of record for qualifying rate elements, or \$200,000 per individual service, whichever is the lesser. For any calendar year in which a Customer had less than 12 full months of revenue for qualifying service in the prior calendar year or no qualifying service in the prior calendar year, \$20,000 per individual service.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-13

Effective: November 1, 2018

### SECTION 2 - REGULATIONS (Continued)

### 2.17 Service Response Credits (SRC)(Continued)

### 2.17.3. General (Continued)

- (B) To receive SRCs on eligible rate elements, Customer must have rate elements listed in its initial subscription submitted under Section 2.17.4(A) based on the established customer of record, or have ordered the eligible rate elements subsequent to its initial subscription. Company reserves the right to change, alter or discontinue the optional SRC plan at its discretion.
- (C) All service performance and provisioning measurements are conducted using Company monitoring systems and procedures. Company may change these systems and procedures at its sole discretion. In performing measurements of overall Mean Time To Repair and Network Availability as set forth in Sections 2.17.6 and 2.17.7 following, Company shall include data measured from throughout the territories covered by this Guide and Frontier Telephone Companies Tariff F.C.C. No. 4 under Service Response Credit plans offered in such tariffs.
- (D) To receive credit, the Company must receive from the Customer a written request for credit within 30 calendar days of the end of the SRC monitoring period. 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.

## 2.17.4. Responsibility of the Customer

(A) General

To participate in the SRC plan, Customer must meet the qualifications set forth in 2.17.4(B), following, for FRS and 2.17.4(C), following, for ATM CRS, and, for all services, submit a subscription in writing, including a list of all qualifying rate elements. Company reserves the right to change, alter or discontinue the SRC plan at its discretion.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-14

### SECTION 2 - REGULATIONS (Continued)

- 2.17 Service Response Credits (SRC)(Continued)
  - 2.17.4. Responsibility of the Customer (Continued)
    - (B) Qualifications for Frame Relay Service (FRS) Customers

FRS Customers will be eligible for SRC when they meet the following requirements:

- 1. Subscribe to and maintain a minimum of 50 FRS User Network Interfaces (UNI)
  Port With Access Line Connections, each of which must have been in-service for at least one calendar month: and
- 2. Customer must have at least 36 months remaining in an applicable term plan commitment period at the time of initial subscription to SRC. Customer may renew or extend an existing term plan commitment period in order to meet the 36 month minimum for initial qualification.
- (C) Qualifications for Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Customers

ATM CRS Customers will be eligible for SRC when they meet the following requirements:

- Subscribe to and maintain a minimum of 25 ATM CRS DS1 UNI Port with Access Line Connections, each of which must have been in-service for at least one calendar month; or
- 2. Subscribe to and maintain a minimum of 25 ATM CRS DS1 Interim Inter-Switch Signaling Protocol (IISP) Port With Access Line Connections, each of which must have been in-service for at least one calendar month; or
- 3. Subscribe to and maintain a minimum of 15 ports using any combination of ATM CRS DS3, OC3c or OC12c UNI Port with Access Line Connections or ATM CRS DS3, OC3c or OC12c IISP Port with Access Line Connections, each of which must have been in-service for at least one calendar month; and
- 4. Customer must have at least 36 months remaining in an applicable term plan commitment period at the time of initial subscription to SRC. Customer may renew or extend an existing term plan commitment period in order to meet the 36 month minimum for initial qualification.

Original Page 2-15

## 2.17 Service Response Credits (SRC) (Continued)

#### 2.17.5. On Time Provisioning

On Time Provisioning is defined as Company providing service to the Customer no later than the Firm Order Commitment (FOC) due date provided by the Company plus twenty-four (24) hours. For these purposes, "providing service" is defined as successful completion of testing of the circuit/connection and rate element by Company. The FOC due date is provided to Customer at the time an order is verified for order accuracy, availability of required facilities and components, and completion of design and ordering related forms and documents (including, but not limited to, network design, configuration and data gathering form(s), and ASRs).

If Company does not meet the FOC due date plus 24 hours for a rate element, due to Company reasons, an On-Time Provisioning SRC equal to a percentage of the associated monthly recurring charge for the rate element for the month in which the due date was missed will apply as follows.

SRC Eligible Service	Applicable Percentage
ATM	50%
FRS	50%
National ELS	20%

- (A) The On-Time Provisioning SRC does not apply:
  - 1. Where facilities sufficient to provision the order do not exist;
  - 2. Where special construction of facilities is required;
  - When the FOC date is missed because the Customer is not ready to accept service on the FOC date;
  - 4. When Customer changes the order after receiving the FOC date from Company;
  - 5. On orders for which an expedited interval has been requested;
  - 6. On orders for disconnection; or
  - 7. When one or more of the conditions set forth in Section 2.17.8 apply.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-16

### SECTION 2 - REGULATIONS (Continued)

- 2.17 Service Response Credits (SRC) (Continued)
  - 2.17.6. Mean Time to Repair (MTTR)
    - (A) MTTR applies to a Customer-reported interruption of service on a subscribed rate element that is within the Company's network (outside plant or central office).
    - (B) Interruption of Service or Trouble is defined as a condition which renders a service unusable to the Customer due to a failure of a facility component within the Company's network that is used to furnish the service. The Company reserves the right to determine when the service is unusable based on its internal procedures. When the Customer reports trouble to the Company-designated entity for such reports, a trouble ticket is opened.
    - (C) MTTR for a calendar month shall be the average of all ticket outage duration, or Time to Repair (TTR), as calculated by Company. The TTR is the Restored Date and Time (the trouble ticket closed time) minus the reported Date and Time (the trouble ticket start time) minus any stop clock time associated with hold, no access or suspend that was logged against the Trouble Report. Stop clock time includes, but is not limited to, the following times:
      - 1. Periods when Customer testing is occurring.
      - 2. Periods when Customer is working on its own Customer Premises Equipment (CPE) and has not yet released the circuit/connection to Company for maintenance, testing or repair.
      - 3. Periods when the Company is awaiting Customer authorization to commence work on the circuit/connection.
      - 4. Periods when the Company is denied access to premises or facilities as necessary to diagnose, repair or test a circuit/ connection.
      - 5. Periods following repair of a circuit/connection when the ticket is held open by Customer to ensure the trouble is resolved.
      - 6. Periods when pre-defined maintenance windows have been established between Company and Customer.
      - 7. For National ELS, service interruptions related to provisioning of a new EVC.

MTTR is calculated by summing TTR for all measured tickets for Customer for the month and dividing by the total number of tickets for that Customer during that month.

Original Page 2-17

Effective: November 1, 2018

### SECTION 2 - REGULATIONS (Continued)

- 2.17 Service Response Credits (SRC) (Continued)
  - 2.17.6. Mean Time to Repair (MTTR) (Continued)
    - (C) (Continued)

MTTR excludes any subsequent reports (i.e., additional Customer inquiries while the trouble is pending), CPE troubles, trouble found on the Customer's side of the point of demarcation, no trouble found, troubles closed due to Customer action and troubles repaired by Company prior to receipt of a trouble report on that circuit/connection.

The following one-time MTTR SRC applies per rate element per calendar month period.

For ATM and FRS, when the overall MTTR is greater than 4 hours, SRCs apply as follows:

- 1. A credit equal to 50% of the monthly recurring charge (MRC) applies per rate element that was the subject of a trouble ticket during the monitoring period whose open duration exceeded 4 hours but did not exceed 8 hours.
- 2. A credit equal to 100% of the monthly recurring charge (MRC) applies per rate element only that was the subject of a trouble ticket during the monitoring period whose open duration exceeded 8 hours.

For National ELS, when the overall MTTR is greater than 4 hours, SRCs apply as follows:

A credit equal to 20% of the monthly recurring charge (MRC) applies per rate element that was the subject of a trouble ticket during the monitoring period whose open duration exceeded 4 hours.

- (D) The MTTR SRC does not apply:
  - 1. When the Customer fails to report the outage to the Company;
  - 2. When a circuit/connection has been in service for less than one full calendar month;
  - 3. When an interruption of service is 4 hours or less; or
  - 4. When one or more of the conditions set forth in Section 2.17.8 apply.

Original Page 2-18

## SECTION 2 - REGULATIONS (Continued)

# 2.17 Service Response Credits (SRC) (Continued)

#### 2.17.7. Network Availability

Network Availability refers to the percentage of time over a measured calendar month that the service is available for use by Customer. The Company threshold for Network Availability is 99.90% in a calendar month.

Network Availability is calculated based upon the total number of minutes in a calendar month that a Customer was actually in service divided by the total number of minutes in that month that a Customer could have been in service for a given set of service component(s).

Network Availability = (1,440 minutes x number of days in month x number of service components) – (Number of minutes service was interrupted during month) and then divided by the possible number of available minutes for the month (1,440 minutes x number of days in month x number of service components).

Service Component

SRC Eligible Service Used in Calculation

ATM Permanent Virtual Circuit (PVC)

FRS PVC
National ELS EVC

For example: A customer has 50 PVCs in the month of July. July has 31 days; 1,440 minutes per day. Three PVCs were out of service over the course of the month for 120 minutes each or a total of 360 minutes. Network availability would be calculated by (1,440 minutes/day X 31 days X 50 PVCs) = 2,232,000 minutes less 360 minutes out of service = 2,231,640 minutes of actual customer network availability. 2,231,640 is divided by 2,232,000 which equals that customer's July Network Availability of 99.98%.

Original Page 2-19

## SECTION 2 - REGULATIONS (Continued)

### 2.17 Service Response Credits (SRC) (Continued)

### 2.17.7. Network Availability (Continued)

The Number of Minutes Out of Service is computed in the same fashion as the number of minutes for Time to Repair. If overall Network Availability is less than the threshold of 99.90%, then a Network Availability SRC equal to a percentage of the associated monthly recurring charge (MRC) will apply for the applicable individual rate elements for the service components that do not achieve the threshold. The Company will not round up the calculation to reach the 99.90% threshold.

SRC Eligible Service	Applicable Percentage
ATM	10%
FRS	10%
National ELS	20%

The Network Availability Service Response Credit does not apply:

- 1. When Customer fails to report the outage to Company.
- 2. When a circuit/connection has been in service for less than one full calendar month.
- 3. When one or more of the conditions set forth in Section 2.17.8 apply.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 2-20

Effective: November 1, 2018

### SECTION 2 - REGULATIONS (Continued)

### 2.17 Service Response Credits (SRC) (Continued)

### 2.17.8. When a Service Response Credit Does Not Apply

Service Response Credits do not apply under the following conditions:

- 1. The negligence of Customer or other party authorized by Customer to use the service;
- 2. Interruptions, failures or delays due to power, equipment, service or systems not provided by Company:
- 3. Interruptions, failures or delays in Customer owned or installed equipment:
- 4. Interruptions, failures or delays at any time in which Company or Company's agents are not granted reasonable access to the premises where access lines associated with the service are terminated;
- 5. Interruptions, failures or delays as a result of Customer authorized maintenance, rearrangement of services or implementation of an order;
- 6. Interruptions, failures or delays resulting from a Customer's refusal to release service(s) for testing and/or repair;
- 7. Interruptions, failures or delays due to acts of God or the public enemy, compliance with any order of any governmental authority, acts of terrorism, war, rebellion, insurrection or sabotage or damage resulting therefrom, fires, floods, earthquakes, unusually severe weather, explosions, washouts, rules and regulations with regard to common carriers, accidents, epidemics, breakdowns, riots, strikes or other concerted acts of its employees, whether direct or indirect, lockouts or other industrial disturbances, whether direct or indirect, worms, viruses or other contaminants that may cause damage to or disable software, computer or electronic systems, or any similar cause, or other causes beyond such party's reasonable control;
- 8. Interruptions, failures or delays due to the hours of scheduled maintenance and scheduled downtimes where Customer has received prior notification from the Company;
- 9. For National ELS, interruptions, failures or delays during periods that maintenance and network upgrades are being performed; or
- 10. During periods of temporary discontinuance as set forth in Section 2.4 preceding.

Original Page 8-21

### SECTION 2 - REGULATIONS (Continued)

2.18 Sale or Transfer of an Operating Telephone Company's Assets and/or Stock to an Unaffiliated Third Party

This Section 2.18 shall apply (i) if the Telephone Company sells or transfers all or a portion of the assets or stock of an Operating Telephone Company (e.g., Frontier Communications of the Carolinas Inc.) to an unaffiliated third party ("Transfer"); and (ii) a service offering or Service Level Agreement (SLA) of this Guide referenced in this Section 2.18 does not include terms and conditions relating to a Transfer.

#### 2.18.1. General

The terms and conditions set forth in Section 2.18.2 following shall apply:

- (A) when a customer subscribes to a service offering or SLA under this Guide that aggregates the customer's purchases from the Telephone Company to measure compliance with such service offering or the customer participates in a SLA that aggregates the customer's measured transactions, and:
- (B) the service offering or SLA does not include terms and conditions pertaining to a Transfer; and
- (C) as a result of the Transfer, one or more of the following conditions occur solely as a result of the Telephone Company no longer providing the same quantity of services:
  - the customer no longer satisfies the minimum requirements of the service offering or SLA;
  - (2) the customer is subject to a related penalty, termination liability or cancellation;
  - (3) the customer is subject to a change in the tier of a volume table or a rate table; and
  - (4) the customer is subject to a change in the rate level of the service offering.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 8-22

### SECTION 2 - REGULATIONS (Continued)

- 2.18 Sale or Transfer of an Operating Telephone Company's Assets and/or Stock to an Unaffiliated Third Party (Continued)
  - 2.18.2 Undertaking of the Telephone Company Following a Transfer
    - When the conditions set forth in 2.18.1 preceding exist, the Telephone Company will utilize the following terms and conditions, as applicable.
    - (A) If the service offering includes specific minimum ordering requirements for participation, or requires that the customer achieve a minimum number of services, minimum number of rate elements, and/or minimum revenue within a specific geographic area in order to continue its subscription to the service offering or participation in a pricing plan for such service offering (each, a **Minimum Requirement**), the Telephone Company will apply the terms and conditions of this Section 2.8.2(A). The following service offerings have Minimum Requirements that are subject to this Section 2.8.2(A):
      - Frame Relay Service Rate Stability Plan as set forth in Part I, Section 5.8.2(E) following; and

In the event of a Transfer, the following applies.

 The Telephone Company will, consistent with the service offering, determine if the customer satisfies the Minimum Requirement for the service offering with the reduced quantity of services the Telephone Company provides to the customer following the Transfer; and

### SECTION 2 - REGULATIONS (Continued)

- 2.18 Sale or Transfer of an Operating Telephone Company's Assets and/or Stock to an Unaffiliated Third Party (Continued)
  - 2.18.2 Undertaking of the Telephone Company Following a Transfer (Continued)
    - (A) (Continued)
      - 2. if the customer does not satisfy the Minimum Requirement following the Transfer, determine if the customer would have satisfied the Minimum Requirement had the Transfer not occurred. If the customer would have satisfied the Minimum Requirement had the Transfer not occurred, then no further action shall be taken and the customer will be considered to have satisfied the Minimum Requirement. If the customer would not have satisfied the Minimum Requirement had the Transfer not occurred, then the terms and conditions for such result shall apply under the applicable service offering, except that the calculation of any penalty associated with not satisfying the Minimum Requirement shall be reduced prorata to reflect the Transfer. Upon renewal of the customer's commitment period for such service offering or subsequent subscription to such service offering, as applicable, the terms and conditions set forth in the applicable section(s) of this the tariff shall apply, including satisfying the Minimum Requirement for such service offering using only the quantity of services the customer purchases from the Telephone Company at the time of renewal or subsequent subscription.

For example, assume Frontier West Virginia Inc transfers a portion of its assets to an unaffiliated third party. Assume that a customer subscribes to the Frame Relay Service Rate Stability Plan under Part I, Section 5.8.2(E) following which includes a minimum service requirement of three hundred (300) 56 kbps UNI Port with Access Line Connections. Further assume that forty-five (45) 56 kbps UNI Port with Access Line Connections were transferred to the unaffiliated third party as a result of the Transfer and that at the next scheduled review of the customer's minimum service requirement, the customer has two hundred seventy (270) of such connections in-service making the customer short of the minimum service requirement by thirty (30) 56 kbps UNI Port with Access Line Connections. Such shortage which would normally incur a penalty to the customer. In this case, the Telephone Company would determine if the customer would have achieved at least three hundred (300) 56 kbps UNI Port with Access Line Connections had the Transfer not occurred by adding (i) the forty-five (45) 56 kbps UNI Port with Access Line Connections transferred to the unaffiliated third party; and (ii) the two hundred seventy (270) in-service 56 kbps UNI Port with Access Line Connections, the total of which is three hundred fifteen (315) 56 kbps UNI Port with Access Line Connections, the result of which is the customer satisfying the Minimum Requirement for the service.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 8-24

#### SECTION 2 - REGULATIONS (Continued)

- 2.18 Sale or Transfer of an Operating Telephone Company's Assets and/or Stock to an Unaffiliated Third Party (Continued)
  - 2.18.2 Undertaking of the Telephone Company Following a Transfer (Continued)
    - (B) For Service Level Agreements (SLAs), a customer who participates in a SLA prior to a Transfer shall continue with such SLA following the Transfer, regardless of whether or not the customer is able to satisfy the requirement(s) of the SLA using the reduced quantity of services the Telephone Company provides to the customer following a Transfer. The following SLA is subject to this Section 2.18.2(B):
      - Service Response Credits as set forth in Section 2.17 preceding.

For example, assume Frontier West Virginia Inc transfers a portion of its assets to an unaffiliated third party. Further assume that a Frame Relay Service customer subscribes to the Service Response Credits under Section 2.17 preceding. The Service Response Credits require that the customer maintain at least fifty (50) FRS User Network Interface Port with Access Line Connections. Finally, assume that immediately following the Transfer, the customer has only forty-four (44) FRS User Network Interface Port with Access Line Connections which would normally make the customer ineligible to continue its subscription to the Service Response Credits. In this case, the customer will be allowed to continue its subscription to the Service Response Credits.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 8-25

#### SECTION 2 - REGULATIONS (Continued)

2.19 Initial Transfer of Assets from Predecessor Company

The original issuing carriers of this Guide were created by a transfer of assets from an unaffiliated third party. This Section 2.19 governs treatment of customers who, at the time of the transfer of assets from the predecessor company, subscribed to a service offering under this Guide that aggregates the customer's purchases from the Telephone Company to measure compliance with such service offering or participated in a SLC that aggregates the customer's measured transactions.

- 2.19.1 When a customer subscribes to a service offering under this Guide that aggregates the customer's purchases from the Telephone Company to measure compliance with such service offering or the customer participates in a SLA that aggregates the customer's measured transactions, and the service offering or SLA includes terms and conditions pertaining to a transfer, the terms and conditions pertaining to a transfer will apply to that service offering or SLA as if the Telephone Company were the predecessor company.
- 2.19.2 When customer subscribes to a service offering under this Guide that aggregates the customer's purchases from the Telephone Company to measure compliance with such service offering or the customer participates in a SLA that aggregates the customer's measured transactions, and the service offering or SLA does not include terms and conditions pertaining to a Transfer, Sections 2.18 preceding will apply as if the Telephone Company were the predecessor company.

For example, if a customer subscribed to a service offering with the predecessor company that aggregates the customer's measured transactions, and the transfer of assets resulted in the customer meeting the conditions described in 2.18.1(B) and (C) preceding with respect to the assets transferred to the Telephone Company, the provisions of 2.18.2 preceding will apply with respect to prorating any Minimum Requirements.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 3-1

#### **SECTION 3 - GENERAL**

#### 3.1 Availability of Service

Company's service is furnished to Customers for data communications originating and terminating within its service area, as specified in Section 4 of this Guide under the terms and conditions of this Guide. Company's service is available twenty-four (24) hours per day, seven (7) days per week unless otherwise specified herein.

Company arranges for installation, operation, and maintenance of the service provided in this Guide for Customer in accordance with the terms and conditions set forth in this Guide. Company may, when authorized by Customer, act as Customer's agent for ordering access connection facilities provided by other carriers or entities (such as the LEC), to allow connection of a Customer's location to Company's service. Customer shall be responsible for all charges due for such service arrangements.

# 3.2 Commingling

Except as provided in Section 51.318 of the Federal Communications Commission's Rules, telecommunications carriers who obtain unbundled network elements or combinations of unbundled network elements pursuant to a Statement of Generally Available Terms, under Section 252 of the Act, or pursuant to an interconnection agreement with the Company, may connect, combine, or otherwise attach such unbundled network elements or combinations of unbundled network elements to data services purchased under this Guide except to the extent such agreement (1) expressly prohibits such commingling; or (2) does not address commingling and the requesting carrier has not negotiated an interconnection agreement (or amendment) expressly permitting such commingling. The rates, terms and conditions of this Guide will apply to the data services that are commingled.

#### 3.3 Facilities Hub

Customer has the option of ordering analog or digital facilities (i.e., DS1, DS1C or DS3) to a facility Hub for channelizing to individual services requiring lower capacity facilities. Different locations may be designated as Hubs for different facility capacities, e.g., multiplexing from digital to analog may occur at one location while multiplexing from digital to digital may occur at a different location. Locations (wire centers) that provide multiplexing of High Capacity Services have been designated as Intermediate Hubs, Super-Intermediate Hubs or Terminus hubs. When ordering, Customer will specify the desired multiplexing Hub(s) or grooming Hubs, as applicable.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 4-1

#### **SECTION 4 - CONNECTION CHARGES**

## 4.1 Ordering Charges

# 4.1.1 Initial Ordering Charge

This charge applies on a per Service Request basis, including those requests to add additional termination to an existing service.

#### 4.1.2 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 and multiplexing arrangements.
- Changes in the type of transport rate option.

The applicable charges are specified within each service rate section.

## 4.2 Requests for Expedition

Customer may request an expedited service date. For those services that can be expedited, 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.



Effective: November 1, 2018

#### SECTION 4 - CONNECTION CHARGES (Continued)

#### 4.3 Moves

FRONTIE

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 be 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.

#### 4.3.1 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 payment plan regulations, Customer will keep the same payment period in force.

### 4.3.2 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.



### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-1

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES

The services in this Guide are available in the following operating territories:

PART I

West Virginia - Frontier West Virginia Inc.

PART II

Arizona - Frontier Communications of the Southwest Inc. California - Frontier Communications of the Southwest Inc.

(D)

Illinois\* - Frontier North Inc., Frontier Communications of the Carolinas Inc.

Indiana\* - Frontier North Inc., Frontier Midstates Inc.

Michigan\* - Frontier North Inc., Frontier Midstates Inc.

Nevada - Frontier Communications of the Southwest Inc.

North Carolina - Frontier Communications of the Carolinas Inc.

Ohio - Frontier North Inc.

(D).

South Carolina - Frontier Communications of the Carolinas Inc.

(D)

Effective: May 1, 2020

Wisconsin - Frontier North Inc.

<sup>\*</sup> Refer to Section 7 for operating territories.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I

- 5.1 Reserved for Future Use
- 5.2 Reserved for Future Use
- 5.3 Ethernet LAN Service#

This service is offered in the following states: West Virginia.

#### A. General

1. Ethernet LAN Service (ELS) is a high speed data service which provides Ethernet transport within a LATA (Ethernet ELS) or allows interconnection of Ethernet ELS as described herein between LATAs (National ELS). Ethernet ELS is provided over a shared network and utilizes FDDI, ATM, Gigabit Ethernet or a combination, to transport the Customers' data between Customer locations within a LATA. National ELS interconnects Ethernet ELS with an Interexchange Carrier or other Service Provider, allowing the Customers' data to be transported to a different Ethernet ELS in a different LATA by use of National ELS Ethernet Virtual Circuits across the Company's Multi-Protocol Label Switching network ("National ELS Network").

- # Effective March 30, 2007, orders for new ELS are no longer permitted. The Company will continue to provide ELS pursuant to this Section 5.3 on any existing Ethernet ELS or National ELS that is inservice as of March 30, 2007, or any order for Ethernet ELS or National ELS that is placed with the Company prior to March 29, 2007 (collectively, Existing Ethernet ELS or Existing National ELS, as applicable), subject to the following conditions:
  - a. The Company will continue to provide Existing Ethernet ELS to a term plan customer for an additional six (6) months beyond the expiration date of the customer's current commitment period, or until the customer replaces the Existing Ethernet ELS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.
  - b. The Company will continue to provide Existing Ethernet ELS purchased on a month-to-month basis until September 30, 2007, or until the customer replaces the Existing Ethernet ELS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.
  - c. The Company will continue to provide Existing National ELS to a term plan customer until the customer replaces the Existing National ELS with a comparable Company provided service, discontinues service, or until the service is withdrawn from the Tariff, whichever comes first. Moves, additions, and/or changes are not permitted.

<sup>\*</sup> For 16 Mbps ELS, token ring transport is provided in lieu of Ethernet transport.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

# A. General (Continued)

# 1. (Continued)

Ethernet ELS is available in two service types: Ethernet Multipoint Service (EMS) and Ethernet Relay Service (ERS). EMS is a connection-less Ethernet ELS Service that allows connectivity among multiple Customer designated locations within a LATA. ERS is a connection-oriented Ethernet ELS Service that allows point-to-point connectivity between Customer designated locations within a LATA.

EMS and ERS are available in two interfaces: User to Network Interface (UNI) or Network to Network Interface (NNI). Ethernet Virtual Circuits (Ethernet ELS EVCs), which are available with the ERS service type only, are required to create point-to-point virtual connections.

- (a) The UNI Port With Access Line Connection consists of a dedicated fiber pair that provides a link from the Customer's premises to one of the Company's ELS nodes/switches and the appropriate port interface connection. If the serving wire center of the customer is not a Telephone Company ELS node/switch, Interoffice Mileage applies from the serving wire center to the ELS node/switch.
- (b) The NNI Port Only Connection provides a port interface connection from an Interexchange carrier's network or other service provider's point of presence to one of the Company's ELS switches.
- (c) The Ethernet ELS EVC provides an Ethernet point-to-point virtual connection between customer locations.

UNIs, NNIs and Ethernet ELS EVCs are further described in Section 5.3 B.1 following.

National ELS consists of two service components: National ELS Ethernet Virtual Circuit (National ELS EVC) and Company provided Internet Protocol Interface (IP Interface). National ELS EVCs and IP Interface are further described in 5.3 B.2 following.

Ethernet ELS creates a network with the ability to function as a shared public network.
 Customer must select either Ethernet Multipoint Service (EMS) or Ethernet Relay Service (ERS) as the service type for each domain.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-4

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### A. General (Continued)

### 1. (Continued)

With the EMS service type, Ethernet ELS 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. When Ethernet ELS is used to access IP-VPN Service, CUGs or virtual LANs are used between a customer designated premises and the IP-VPN network. When Ethernet ELS is used to access the National ELS Network, CUGs or virtual LANs are between a customer designated premises and the National ELS Network. Subscribers in a CUG can only access their own data. An EMS domain is comprised of the number of access lines designated by Customer to be included in a CUG or virtual LAN. EMS provides multipoint-to-multipoint connectivity among all of Customer's access lines within a given domain.

With the ERS service type, Ethernet ELS EVCs provide point-to-point virtual connectivity between two Customer access lines, between Customer's access line and an NNI, between Customer's access line and an IP-VPN i-VC or between Customer's access line and a National ELS EVC. An ERS domain is comprised of any number of Ethernet ELS EVCs (one Ethernet ELS EVC = one virtual LAN) designated by Customer to be included in the ERS domain.

Customer may have more than one domain within a LATA, but connections between EMS domains or between domains of different service types are not permitted.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

#### B. Service Components

#### 1. Ethernet ELS

The major components of Ethernet ELS are:

- a. UNI Port With Access Line Connection are available in the following configurations:
  - i. EMS Standard UNI Port With Access Line Connection
  - ii. ERS Standard UNI Port With Access Line Connection
  - iii. EMS Real Time (RT) UNI Port With Access Line Connection
- b. NNI Port Only Connection(s) are available in the following configuration:
  - i. 1000 Mbps (1 Gbps) via single port interface
- c. Ethernet Virtual Circuit (Ethernet ELS EVC)
- d. Interoffice Mileage
- e. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes
- f. Optional Features
- a. UNI Port With Access Line Connection
  - i. EMS Standard UNI Port With Access Line Connection
    - EMS Standard UNI Port With Access Line Connections, which are available at 10, 100 and 1000 Mbps, provide connectivity between the Customer premises and the serving wire center. EMS Standard UNI Port With Access Line Connections are only available where facilities and conditions permit. Connectivity can be established only between/among UNI/NNIs of the same service type.
  - ii. ERS Standard UNI Port With Access Line Connection
    - ERS Standard UNI Port With Access Line Connections, which are available at 10, 100 and 1000 Mbps, provide connectivity between the Customer premises and the serving wire center. ERS Standard UNI Port With Access Line Connections are only available where facilities and conditions permit. Connectivity can be established only between/among UNI/NNIs of the same service type. ERS Standard UNI Port With Access Line Connection requires purchase of Standard ERS EVCs, as described in Section 5.3(B)(1)(c) following, in order to establish point-to-point connectivity among the Customer's access lines.
- # Service availability limited. Refer to # footnote on Page 5-2.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - a. UNI Port With Access Line Connection (Continued)
      - iii. EMS Real Time (RT) UNI Port With Access Line Connection

EMS - RT UNI Port With Access Line Connections, which are available at 100 Mbps or 1,000 Mbps, provide connectivity between the Customer premises and the serving wire center. This enhanced service class configures a fixed portion of the UNI to be configured for Real Time Traffic, where each 100 Mbps UNI has a Committed Information Rate (CIR) equal to 2 Mbps and an Excess Information Rate (EIR) equal to 0 and where each 1,000 Mbps UNI has a CIR equal to 10 Mbps and an EIR equal to 0. The remainder of the UNI can be used for CIR = 0 with EIR = 0 traffic. Connectivity can be established between/among EMS service types (RT and Standard) but not between EMS and ERS service types.

b. Network to Network Interface (NNI) Port Only Connection

NNI Port Only Connections are available at the speed of 1000 Mbps. The ELS NNI Port Only configuration is used for connecting two networks together for bidirectional messaging and is available on a private basis only. NNI Port Only Connections are available as either EMS or ERS. Connectivity can be established only between/among UNI/NNIs of the same service type.

Interoffice transport from a Customer's serving wire center to the ELS switch is not included. Such transport, when required, is the responsibility of the Customer and must be ordered separately from Frontier Telephone Companies Tariff FCC No. 4.

Access to NNI Port Only Connections is provided via LAN Extension Service and is subject to the regulations, rates and charges specified in either Frontier Telephone Companies Tariff FCC No. 4, Section 7. The channel speed of the LAN Extension Service channel must be sufficient to accommodate the NNI Port speed.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-7

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

- 5.3 Ethernet LAN Service# (Continued)
  - B. <u>Service Components</u> (Continued)
    - 1. Ethernet ELS (Continued)
      - b. Network to Network Interface (NNI) Port Only Connection (Continued)

NNI Port Only Connections are available at the speed of 1000 Mbps (1 Gbps) with a single port interface.

NNI Port Only Connections can only be accessed via:

- i. LAN Extension Service, subject to the regulations, rates and charges specified in Frontier Telephone Companies Tariff FCC No. 4, Section 7. The channel speed of the LAN Extension Service channel must be sufficient to accommodate the NNI Port speed. The commitment period for the NNI Port Only Connection must be the same as the commitment period of the corresponding LAN Extension Service.
- ii. Collocated Interconnection Service (CIS), subject to the regulations, rates and charges for cross-connection to a physical or virtual CIS arrangement specified in Frontier Telephone Companies Tariff FCC No. 4, Section 19. Customer must provide connecting facility assignment (CFA) to which NNI will be cross connected in such an arrangement. The connection between a CIS and ELS must occur within the same Company wire center, except where LAN Extension Service, or Ethernet Private Line, Company provided dedicated fiber transport with network interface device or Company provided ethernet private line service are used to provide the transport between a CIS and an ELS NNI Port Only Connection that are not in the same wire center.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-8

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

- 5.3 Ethernet LAN Service# (Continued)
  - B. <u>Service Components</u> (Continued)
    - 1. Ethernet ELS (Continued)
      - b. Network to Network Interface (NNI) Port Only Connection (Continued)
        - iii. (Reserved)
        - iv. Ethernet Private Line, subject to the regulations, rates and charges specified in Frontier Telephone Companies Tariff FCC No. 4, Section 7. The channel speed of the Ethernet Private Line service channel must be sufficient to accommodate the NNI Port speed. The commitment period for the NNI Port Only Connection must be the same as the commitment period of the corresponding Ethernet Private Line service.
        - v. Company provided Dedicated fiber transport with network interface device, where such access is technically and operationally feasible, as determined by the Company.
        - vi. Company provided ethernet private line service, where such access is technically and operationally feasible, as determined by the Company.

Effective: November 1, 2018

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

## 5.3 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - c. Ethernet Virtual Circuit (Ethernet ELS EVC)

Ethernet ELS EVCs, which are available in various bandwidths, provide point-to-point virtual Ethernet connectivity between two UNIs, between a UNI and an NNI, between a UNI and a National ELS EVC, or between a UNI and an IP-VPN i-VC. Ethernet ELS EVCs are only available with ERS.

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

10 Mbps = 2 EVCs

100 Mbps = No more than 10 EVCs

1000 Mbps = No more than 75 EVCs

Ethernet ELS EVCs are available with the following classes of service:

<u>ERS Standard</u>: This service class is available with ERS – Standard UNI Port With Access Line Connections at 10, 100 and 1000 Mbps. ERS Standard is designed for Customer applications that do not require a Committed Information Rate (CIR) or low delay, where CIR equals 0 and Excess Information Rate (EIR) equals the number of Mbps of the selected ERS Standard EVC service class.

ERS Basic (ERS-B): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 1000 Mbps. ERS-B is designed for Customer applications that do not require a CIR or low delay, where CIR equals 0 and EIR equals the number of Mbps of the selected ERS-B EVC service class.

ERS Priority Data (ERS-PD): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 500 Mbps. ERS-PD is designed for Customer applications which do not require low delay, but require a CIR, where the CIR equals the number of Mbps of the selected ERS-PD EVC service class and the EIR equals the number of Mbps of the selected ERS-PD EVC service class.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
  - c. Ethernet Virtual Circuit (Ethernet ELS EVC) (Continued)

ERS-Real Time (ERS-RT): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 100 Mbps. ERS-RT is designed for Customer applications which require a CIR and low delay for some portion of their traffic, where the CIR equals the number of Mbps of the selected ERS-RT EVC service class and the EIR equals 0.

Each ERS EVC can include up to three service classes (ERS-B, ERS-PD and ERS-RT) as described preceding, subject to the threshold requirements specified in this Section 5.3(B)(1)(c) preceding. 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. Company provides no performance guarantees or Credit Allowances due to performance levels defined in these Classes of Service.

### d. Interoffice Mileage

If Customer's normal serving wire center is not equipped with ELS equipment, Customer may obtain service from an ELS equipped wire center by ordering interoffice mileage. Interoffice mileage charges will apply in addition to ELS UNI/NNI charges. The dB loss cannot exceed the maximum allowable range, as specified in Section 5.3 D. following.

The Company has no obligation to notify Customer when ELS equipment is deployed in Customer's normal serving wire center or in a wire center that is closer to the Customer's normal serving wire center. Should Customer decide to initiate a move of its ELS facilities when service becomes available in its normal serving wire center or a closer serving wire center, the regulations set forth in Section 5.3 D following will apply.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-11

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
  - e. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes

A domain change is the reassignment of Customer's computer data to different virtual LAN, at Customer's request. The change is accomplished via software changes in Company's database.

An Ethernet ELS EVC change is any change in the bandwidth of an Ethernet ELS EVC.

LAN extension equipment changes, other than for maintenance or repair, involve the physical replacement of Company-provided network interface on an existing ELS access line, at the same location on Customer's premises.

# f. Optional Features

(i) Customer Service Management (CSM)

CSM is an optional feature that provides Customers with web-based reports. The reports give the Customer the ability to extract "read-only" network traffic information, enabling them to monitor and manage their network performance. Network traffic information is not available on any EVC mapped to an NNI. CSM is provided per Customer domain.

CSM is available where conditions and facilities permit. CSM is not available with National ELS.

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

FRONTIE

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-12

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### B. <u>Service Components</u> (Continued)

#### 2. National ELS

National ELS consists of two service components: National ELS Ethernet Virtual Circuit (National ELS EVC) and Company provided IP Interface.

### a. National ELS Ethernet Virtual Circuits (National ELS EVCs)

The National ELS EVC provides a point-to-point virtual connection from Ethernet ELS into the National ELS Network where it physically connects to an IP Interface on Company's network. National ELS EVCs are available at 4, 6, 8, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500 and 600 Mbps and only where facilities and conditions permit.

Customer must utilize suitable Ethernet ELS access facilities to connect to the National ELS EVC on the National ELS Network. 16 Mbps Ethernet ELS may not be used to connect to the EVC on the National ELS Network.

Customer's selection for speed and/or service performance issues on the Ethernet ELS access facilities may impact the performance of National ELS. The associated regulations, rates and charges for Ethernet ELS apply for such access facilities.

### b. IP Interface

An IP Interface is an Internet Protocol service consisting of a port on a LATA Core Router that provides an interface to the Company's IP network. The IP Interface is available subject to technical specifications and operational feasibility, as determined by the Company.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-13

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

#### B. <u>Service Components</u> (Continued)

National ELS EVCs are offered in the following LATAs. To determine what points are within a specific LATA, refer to the Local Exchange Routing Guide (LERG).

State LATA

None under this Part I None under this Part I

Subject to general regulations contained in Section 2 preceding, National ELS will be provided seven days a week, 24 hours a day, with the following exception specified in 5.3D.7 following.

## C. <u>Technical Specifications</u>

The technical specifications for Ethernet ELS are delineated in IEEE802.3-2002 and IEEE802.1Q.

### D. <u>Terms and Conditions</u>

- 1. A typical Ethernet ELS network will be limited to wire centers in a specific geographic location. Customers gain access to the shared Ethernet ELS network via ELS equipment deployed in Customer's serving wire center.
- 2. Ethernet ELS provided with a UNI is available to Customers whose serving wire center is equipped with ELS equipment and whose location is within the maximum allowable range of the serving central office. The maximum allowable range is determined by the dB loss rate so the actual distance between the ELS equipped serving wire center and the Customer's location may vary due to the facility used in each serving arrangement. The maximum dB loss cannot exceed 20dB @1310nm for 10 Mbps service, 26dB @1310nm for 100 Mbps service, 9.5db @1330nm for 1000 Mbps or 22dB @1550nm for 1000 Mbps.

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-14

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.3 Ethernet LAN Service# (Continued)

- D. <u>Terms and Conditions (Continued)</u>
  - 3. Ethernet ELS includes:

		When Provided With	
	<u>UNI Interface</u>	NNI Interface	
Network Interface Device (NID) at Customer's Premises to terminate the fiber pair.	X		
Dedicated fiber pair from Customer's premises to the serving wire center.	Х		
Network management including fault monitoring and diagnostics, performance and network configuration applications, and manual monitoring when necessary.	X	X	
A dedicated port on the node/switch.	X	X	
One or more Ethernet ELS EVCs (ERS service type only)	Х	X	
ELS Interoffice mileage, where Applicable**.	Х		
Optional features, if applicable.	Χ	Х	

<sup>\*\*</sup> ELS interoffice mileage will not apply for Ethernet ELS provided with an NNI interface. However, when LAN Extension Service, Ethernet Private Line, Company provided dedicated fiber transport with network interface device or Company provided Ethernet private line service are used to access NNI as specified in 5.3(B)(1)(b) preceding, channel mileage under those services will apply.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-15

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### D. <u>Terms and Conditions</u> (Continued)

### 4. Availability of Service

Subject to general regulations contained in Section 2 preceding, Ethernet ELS will be provided seven days a week, 24 hours a day, from wire centers equipped to provide this service with the exception specified in D.7 following. ELS is available where facilities and conditions permit. Special construction charges may apply.

#### 5. Ethernet ELS Connections

- (a) The network interface is the LAN interface on the ELS equipment at Customer's premises. Customer is responsible for any inside wire required in connecting the LAN to the ELS equipment.
- (b) Customer is responsible for installation, operation, and maintenance of any Customer-provided equipment.
- (c) The Company has the service responsibility up to and including the network interface.

#### 6. Limitations

Customer's location must be within the maximum allowable range of the Ethernet ELS equipped wire center.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-16

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### D. <u>Terms and Conditions</u> (Continued)

# 7. Maintenance Window

To meet Ethernet ELS 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 p.m. and 8 a.m. Network upgrades are planned to provide Customer with reasonable and timely notification in order to minimize any impact on Customer's service.

To meet National ELS Customers' requirements, Company performs occasional network upgrades as needed to provide the service and enhancements to the service. Generally, these upgrades will be performed between the hours of 2:00 AM and 6:00 AM on Tuesdays and Thursdays. Company cannot guarantee availability of EVCs during such periods that maintenance and network upgrades are being performed.

However, Company reserves the right to perform maintenance at any time, at its discretion, when it believes such unscheduled maintenance is necessary to maintain network performance. Company will make reasonable effort to provide notice to those Customers likely to be affected by such maintenance work.

#### 8. Transmission Mode for Ethernet ELS

The transmission mode supported is dependent on the access rate. The supported transmission mode for 16 Mbps access is half-duplex. The supported transmission mode for 10 Mbps, 100 Mbps and 1000 Mbps access is full duplex.

Effective: November 1, 2018

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.3 Ethernet LAN Service# (Continued)

#### E. Application of Rates

The following rate elements are applicable to ELS:

#### **Ethernet ELS**

- UNI Port with Access Line Connection
  - EMS Standard UNI Port With Access Line Connection
  - ERS Standard UNI Port With Access Line Connection
  - EMS Real Time UNI Port With Access Line Connection
- NNI Port Only Connection
- Ethernet Virtual Circuit (Ethernet ELS EVC)
  - ERS EVC Setup
  - ERS EVC Standard
  - ERS EVC Bandwidth (Basic, Priority Data and Real Time)
- Interoffice Mileage
- Domain/Ethernet ELS EVC/LAN Extension Equipment Changes
- Optional Features
  - Customer Service Management (CSM)

#### National ELS

- National ELS Ethernet Virtual Circuit (National ELS EVC)
- National ELS Administrative Change Charge
- National ELS EVC Expedite Charge
- 1. UNI Port with Access Line Connection

A monthly rate applies on a per-line basis and is differentiated by the speed of the access connection (i.e., 10, 16\*, 100 or 1000 Mbps). The UNI Port with Access Line Connection 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 Port with Access Line Connection as specified in (F) following.

### 2. NNI Port Only Connection

A monthly rate applies on a per port connection basis. The NNI Port Only Connection is offered on a 3 Year or 5 Year Term Plan. A nonrecurring charge applies to the installation of the NNI Port Only Connection.

FRONTIE

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### E. Application of Rates (Continued)

# 3. Ethernet Virtual Circuit (Ethernet ELS EVC)

For Customers who order the ERS EVC - Standard, a monthly rate and a nonrecurring charge applies on a per ERS EVC - Standard (ERS EVC-Std) basis and varies by the bandwidth selected. The EVC bandwidth must be equal to the lower speed bandwidth of the two end points it is connecting.

For Customers who order the ERS-B, ERS-PD, or ERS-RT EVC, a monthly rate applies, per Class of Service, on a per EVC basis, and varies by the bandwidth selected. A nonrecurring Setup Charge applies per ERS EVC. A Customer may have more than one Class of Service on the EVC, but only one EVC Setup Charge applies.

#### 4. Interoffice Mileage

The Interoffice Mileage charge is applied on a per line, per mile basis. The Per Mile charge is multiplied by the distance between the Customer's serving central office and the nearest ELS equipped central office. The mileage measurement is calculated as specified by NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC. No. 4. Interoffice Mileage monthly charges apply in addition to the applicable rates and charges for the ELS UNI.

# 5. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes

Customer requests for changes in domains, changes in bandwidth of Ethernet ELS EVCs or replacement of LAN extension equipment will be charged a nonrecurring charge per location, per change.

## Optional Features

### (a) Customer Service Management (CSM)

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

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-19

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

## E. Application of Rates (Continued)

### 7. National ELS Ethernet Virtual Circuit (National ELS EVC)

A monthly rate applies on a per National ELS EVC basis and is differentiated by the speed of the connection. The National ELS EVC is offered under 1 Year, 2 Year or 3 Year Term Plans. A nonrecurring charge applies to the installation of a National ELS EVC provided under a 1 Year Term Plan.

#### Reserved

### 9. National ELS Administrative Change Charge

A nonrecurring National ELS Administrative Change Charge applies in the following circumstances:

- When a Customer requests a later provisioning due date
- When a Customer cancels an order which is already in progress
- When a Customer upgrades service in accordance with 5.3(E)(14)(d)(2) following
- When a National ELS EVC is remapped at a Customer's request, except when such remapping is required as a result of the disconnection of an IP Interface.

One National ELS Administrative Change Charge shall apply per order.

### 10. National ELS EVC Expedite Charge

Company offers an expedite capability on National ELS EVCs but does not guarantee that every request will be accepted or expedited per the requested time. When requested by Customer, the National ELS EVC Expedite Charge will apply, on a per National ELS EVC basis, when Company meets an interval shorter than the standard interval.

#### 11. Minimum Period

The minimum period for Ethernet ELS under the month-to-month plan is nine months. The minimum period for National ELS is twelve months. The regulations applicable to ELS provided under a Term Payment Plan are specified in (13) following.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-20

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.3 Ethernet LAN Service# (Continued)

### E. Application of Rates (Continued)

### 12. Moves, Changes, and Upgrades

When Customer requests a move or relocation of the Ethernet ELS 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 UNI/NNI speed (10 Mbps to 100 Mbps) or change in service type (EMS to ERS), at an existing address, the upgrade in UNI/NNI speed or 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.

Early termination charges may be waived under the conditions specified in 5.3(E)14(d) following.

#### 13. Term Payment Plan

The ELS UNI Port With Access Line Connection, NNI Port Only Connection and National ELS EVC are offered under the Term Payment Plans specified in (F) following.

### **End of Term Options**

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

- Renew for the same commitment period;
- Commit to a new term period of shorter or longer duration;
- Arrange for a change of service; or
- Discontinue service.

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

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.3 Ethernet LAN Service# (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability
    - (a) In the event service is terminated by Customer prior to completion of the current term commitment period, Customer shall be liable for an early termination charge, except as noted in (b), (c) or (d) following.

#### Termination Liability for Ethernet ELS:

Termination liability will be 25% of the monthly recurring charge(s) (MRC) for Ethernet ELS for the remainder of the term. For customers who entered into term plans prior to December 19, 2003, when there is a term plan less than the actual time the term plan has been in effect, the termination liability charge will be the lesser of:

- (1) the difference between the discounted monthly rates resulting from the highest term plan commitment period that could be satisfied prior to the disconnection and the discounted monthly rates resulting from the term plan multiplied by the actual number of months the service has been in effect; or
- (2) 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:

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

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-22

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.3 Ethernet LAN Service# (Continued)
- 5.3 Ethernet LAN Service# (Continued)
  - E. Application of Rates (Continued)
    - 14. Termination Liability (Continued)
      - (a) (Continued)

#### **Termination Liability for National ELS:**

Termination liability applies to National ELS EVC service components when National ELS is disconnected after the minimum period but prior to the expiration of the term plan.

Termination liability regulations applicable to National ELS EVC service components are set forth as follows:

For disconnects prior to the expiration of a one-year term plan, termination liability is equal to the minimum period obligation, or 100% of the applicable MRCs for the unexpired portion of the plan.

For disconnects within the first twelve months of a two- or three- year term plan, the termination liability charge is equal to 100% of the applicable MRCs for the unexpired portion of the first twelve months and 50% of the applicable MRCs for the remainder of the plan.

For disconnects after the first twelve months of a two- or three-year term plan, the termination liability charge is equal to 50% of the applicable MRCs for the remainder of the plan.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.3 Ethernet LAN Service# (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability (Continued)
    - (b) Early termination charges will apply only to those rate elements under a term commitment period. For Customers who entered into term plans prior to August 13, 2003, if rates increase during the term, Customer may discontinue services without liability. For all other Customers, if any rates for the service are increased during the term period, exclusive of any increase due to local, state, or federal fees, taxes, or surcharges, the Customer may terminate the service without incurring an early termination charge.
    - (c) Early termination charges for Ethernet ELS will not be assessed under the following circumstances:
      - 1. The customer moves its 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. The Customer attempts to move the existing service to a new location within the Company's service area, but the service is unavailable;
      - The Customer converts to a new term commitment plan for the same service before the current term commitment expires, and the dollar value of the new term commitment is equal to or greater than the remaining dollar value of the current term commitment; or
      - 4. The 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 dollar value of the new term commitment is equal to or greater than the remaining dollar value of the current term commitment,
        - (b) Both the existing and new services are provided solely by the Company;
        - (c) The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.
- # Service availability limited. Refer to # footnote on Page 5-2.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-24

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

- 5.3 Ethernet LAN Service# (Continued)
  - E. Application of Rates (Continued)
    - 14. Termination Liability (Continued)
      - (d) Early termination charges for National ELS will not be assessed under the following circumstances:
        - Customer subscribes to a new term commitment for the same service before the
          term plan expires, and the aggregate amount of all MRCs included under the new
          term plan is equal to or greater than the aggregate amount of the MRCs
          remaining under the expiring term plan. A National ELS Administrative Change
          Charge will apply if there is no nonrecurring charge associated with the new term
          plan.
        - Customer upgrades National ELS EVC service components under a term plan to a higher speed provided that each of the following conditions are met. A National ELS Administrative Change Charge will apply if there is no nonrecurring charge associated with the new term plan.
          - The aggregate amount of all MRCs included under the term plan for the upgraded service components is equal to or greater than the aggregate amount of the MRCs remaining for the existing service components;
          - Both the existing and the upgraded service components are provided solely by Company; and
          - The order to discontinue the existing National ELS EVC service components and the order for the upgraded service components are received by Company at the same time on the same order.
        - 3. In the event Company initiates a rate increase, exclusive of any increase due to local, state or federal fees, taxes or surcharges, and the total discounted monthly rates increase by 8% or more, Customer may cancel its term plan for the affected service without termination liability. Customer must exercise its option to cancel the term plan for the affected service within 30 days of the date of the effective rate increase. Company will notify Customer in writing before any rate increase is filed in the tariff, and such notification will apprise Customer of its options.
- # Service availability limited. Refer to # footnote on Page 5-2.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.3 Ethernet LAN Service# (Continued)

(F) Rates and Charges

Jurisdiction: West Virginia

1.		S or ERS – Standard UNI Port With ess Line Connection, per line	Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
	(a)	Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps	\$1,300.00 1,300.00 1,300.00	\$1,200.00 2,400.00 4,000.00
	(b)	Three Year Plan 10 Mbps 100 Mbps 1000 Mbps	N/A N/A N/A	1,000.00 2,000.00 3,500.00
	(c)	Five Year Plan 10 Mbps 100 Mbps 1000 Mbps	N/A N/A N/A	900.00 1,800.00 3,200.00
2.	_	S - Real Time UNI Port With Access Line nection, per line		
	(a)	Month to Month Plan 100 Mbps 1000 Mbps	1,300.00 1,300.00	2,500.00 4,500.00
	(b)	Three Year Plan 100 Mbps 1000 Mbps	N/A N/A	2,100.00 4,000.00
	(c)	Five Year Plan 100 Mbps 1000 Mbps	N/A N/A	1,900.00 3,700.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-2.

Original Page 5-26

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.3 Ethernet LAN Service# (Continued)

(F) Rates and Charges

Jurisdiction: West Virginia

			Nonrecurring	Monthly
3.	(Res	erved)	<u>Charge</u>	<u>Rate</u>
4.	NNI	Port Only, EMS or ERS, per port		
	(a)	Three Year Plan 1000 Mbps	N/A	3,700.00
	(b)	Five Year Plan 1000 Mbps	N/A	3,500.00
	(c)	NNI Port Only Installation per port	1,300.00	N/A
5.	5. Ethernet ELS EVC			
	(a)	ERS EVC Standard (ERS-Std), Per EVC 10 Mbps 100 Mbps 1000 Mbps	200.00 200.00 200.00	50.00 100.00 200.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-2.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.3 Ethernet LAN Service# (Continued)

(F) Rates and Charges

Jurisdiction: West Virginia

5. Ethernet ELS EVC (Continued)

		Nonrecurring	Monthly
		<u>Charge</u>	<u>Rate</u>
(b)	ERS EVC Bandwidth,		
	per Class of Service, per EVC		
	Basic (ERS-B) Class of Service		
	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

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-2.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.3 Ethernet LAN Service# (Continued)

(F) Rates and Charges

Jurisdiction: West Virginia

5. Ethernet ELS EVC (Continued)

		Nonrecurring	Monthly
4. \	500 51/0 D	<u>Charge</u>	<u>Rate</u>
(b)	ERS EVC Bandwidth,		
	per Class of Service, per EVC (Continued)		
	Priority Data (ERS-PD) Class of Service		
	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

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.3 Ethernet LAN Service# (Continued)

(F) Rates and Charges

Jurisdiction: West Virginia

5. Ethernet ELS EVC (Continued)

(b)	ERS EVC Bandwidth, per Class of Service, per EVC (Continued)	Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
	Real Time (ERS-RT) Class of Service		
	1 Mbps 2 Mbps 3 Mbps 4 Mbps 5 Mbps 6 Mbps 7 Mbps 8 Mbps 9 Mbps 10 Mbps 20 Mbps 30 Mbps 40 Mbps 50 Mbps 50 Mbps 50 Mbps 60 Mbps 70 Mbps 80 Mbps 90 Mbps	N/A	\$ 120.00 240.00 360.00 480.00 600.00 660.00 720.00 780.00 840.00 900.00 1,175.00 1,450.00 1,725.00 2,000.00 2,200.00 2,400.00 2,600.00 2,800.00 3,000.00
(c)	ERS EVC Bandwidth, Setup Charge for ERS Premier UNI Port With Access Line Connection or NNI Port Only Connection, per EVC	\$200.00	N/A

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-2.



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-30

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

5.3	Ethernet LAN Service#	(Continued)	)

(F) Rates and Charges

Jurisdiction: West Virginia

6. Interoffice Mileage, per line
Per Mile
N/A

Per Mile N/A 100.00

7. Domain/Ethernet ELS EVC/ LAN Extension Equipment Changes

Changes 400.00 N/A

8. Customer Service
Management, per Customer,
Per Domain

350.00 150.00

- 5.4 Reserved for Future Use
- 5.5 Reserved for Future Use
- 5.6 Reserved for Future Use
- 5.7 Reserved for Future Use

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

### 5.8 Exchange Access Frame Relay Service#

This service is offered in the following states: West Virginia.

### 5.8.1 General

Exchange Access Frame Relay Service (XA-FRS) is a medium to high speed connectionoriented packet-switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible Customer equipment across a wide area for the purpose of interstate access. XA-FRS allows for the transfer of variable length frames (packets). Frames are relayed by virtual connections, i.e., frames travel a fixed path through the network although bandwidth is not dedicated to each virtual connection.

Exchange Access Frame Relay Service (XA-FRS) is a medium to high speed connectionoriented packet-switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible Customer equipment across a wide area for the purpose of interstate access. XA-FRS allows for the transfer of variable length frames (packets). Frames are relayed by virtual connections, i.e., frames travel a fixed path through the network although bandwidth is not dedicated to each virtual connection.

- The following footnote is not applicable to the 56 kbps and 64 kbps UNI Port With Access Line Connection, 56 kbps, 64 kbps, and 128 kbps UNI Port Only Connection, 56 kbps, 64 kbps, and 128 kbps Backup UNI, PVC CIR, and Premier PVC rate elements of XA-FRS. Effective May 9, 2007, orders for new XA-FRS are no longer permitted. The Company will continue to provide XA-FRS pursuant to this Section 5.8 on any existing XA-FRS that is in-service as of May 9, 2007, or any order for XA-FRS that is placed with the Company prior to May 9, 2007 (collectively, Existing FRS), subject to the following conditions:
  - a. The Company will continue to provide Existing FRS to a term plan customer for an additional six (6) months beyond the expiration date of the customer's current commitment period at the existing rates of the current term plan, or until the customer replaces the Existing FRS with a comparable Company provided service, or discontinues service, whichever comes first. Subject to the availability of network facilities, moves are permitted provided that such moves do not require a new commitment period. Administrative changes that do not result in a physical change to the underlying UNI/NNI are permitted. Additions are not permitted.
  - b. The Company will continue to provide Existing FRS UNIs/NNIs purchased on a month-tomonth basis until November 9, 2007, or until the customer replaces the Existing FRS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

This service, comprised of two Interfaces, a User Network Interface (UNI) and a Network-to-Network Interface (NNI), allows XA-FRS compatible Customer Premises Equipment (CPE) to originate or terminate interexchange services. All UNI access facilities must be in conformance with American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992. All NNI access facilities must be in conformance with ANSI standards T1.606b-1993 and Telcordia Technical Reference TR-TSV061370, Issued: May 1993.

XA-FRS may be connected to the following Company provided services, where such connections are technically and operationally feasible, as determined by the Company:

- asynchronous transfer mode cell relay service
- digital subscriber line service
- frame relay service
- internet protocol virtual private network service

XA-FRS provides high-speed throughput over digital facilities at speeds of 56 Kbps, 64 Kbps, 128 kbps, 256 kbps, 384 Kbps, 512 kbps, 768 kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps or 44.736 Mbps. Physical access to Company Frame Relay network is provided via a UNI Port With Access Line Connection, a UNI Port Only Connection or a NNI Port Connection with a digital transmission facility. A DS1 or a DS3 rated channel termination may be used as the NNI Port Connection transport link. Collocated Interconnection Services (CISs) provide interoffice transport for NNI and UNI Port Only Connections. When available, DS1 transport must be equipped with both B8ZS capability and Extended Super Frame (ESF), and DS3 transport must be equipped with B3ZS.

Frontier Telephone Companies

# Original Page 5-33

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

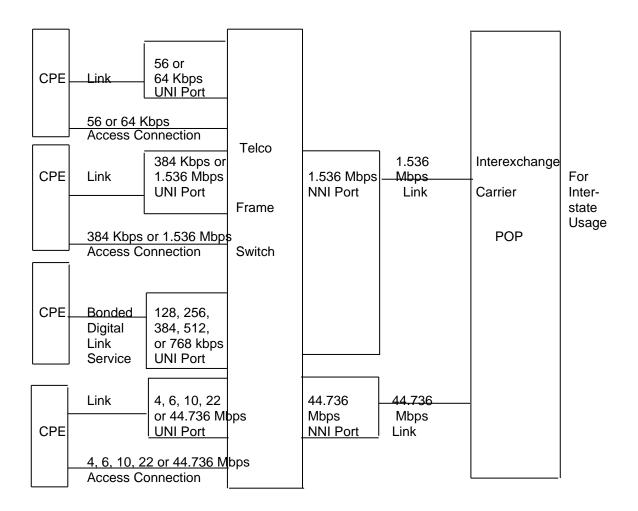
### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

The following diagram depicts a generic view of the components of XA-FRS Service and the manner in which the components are combined to provide a complete XA-FRS connection.

#### FRAME RELAY SERVICE



### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

A. User Network Interface (UNI) Connections

The UNI is a standard interface used to connect the end user to the Company XA-FRS Network. It receives the data frame from Customer's LAN or other CPE devices and verifies that the DLCI is valid before relaying the frame to the destination end point.

- The UNI Port With Access Line Connection consists of a 56 Kbps, 64 Kbps, 1.536 Mbps or a 44.736 Mbps digital facility from the customer premises to the XA-FRS network and the appropriate port interface connection. UNI Port with Access Line Connection also includes the transport from a Customer's serving wire center to a Frame Relay Switch, when required. The effective data rate of this line is 56 Kbps and 64 Kbps for narrowband connectivity and 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps and 44.736 Mbps for wideband connectivity.
- 2. UNIs are also provisioned as a Port Only Connection. UNI Port Only Connection provides an XA-FRS Network connection based on the port connection speeds of 56 kbps, 64 kbps, 128 kbps, 256 kbps, 384 kbps, 512 kbps, 768 kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps and 44.736 Mbps. The channel speed of the access channel must be sufficient to accommodate the XA-FRS port speed. Each port can accommodate multiple PVCs.

UNI Port Only Connections do not include transport from a Customer's serving wire center to a Frame Relay Switch. Such transport, when required, is the responsibility of the Customer and must be ordered separately. Rates and charges for transport to the Frame Relay Switch apply in addition to UNI Port Only rates and charges. For UNI Port Only Connections ordered to provide an XA-FRS Network Connection from a Collocation Interconnection Service Cross Connect, associated transport must be ordered from Frontier Telephone Companies Tariff FCC. No. 4, Section 18 or 19, as applicable.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.1 General (Continued)
    - A. User Network Interface (UNI) Connections (Continued)
      - 2. (Continued)

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 regulations, rates and charges for the specific type of access service apply as specified in Frontier Telephone Companies Tariff FCC. No. 4. The access facilities rates and charges are in addition to the rates and charges for XA-FRS. 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 Customer.

- Additional UNI Port With Access Line Connections and UNI Port Only Connections may be ordered under Section 5.8.1D following for disaster recovery of one or multiple UNI Port With Access Line Connections and UNI Port Only Connections and are referred to as Backup UNIs.
- B. Network-to-Network Interface (NNI) Port Connection

The NNI, specifies how an XA-FRS switch sends and receives data from a Frame Relay interexchange carrier's or other Customer's network.

The NNI Port Connection provides connection of a digital transmission facility, including 1.536 Mbps/DS1 and 44.736 Mbps/DS3, to Company's XA-FRS Network.

NNI Port Only Connections include interoffice mileage from a Customer's serving wire center to a Frame Relay Switch. Rates and charges for applicable Channel Terminations are also as specified in Frontier Telephone Companies Tariff FCC. No. 4.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-36

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

### C. Committed Information Rate

The customer is required to specify either a Standard Committed Information Rate (CIR) per PVC at the rates set forth in 5.8.3.C following or an Exchange Access Frame Relay Service to Exchange Access Asynchronous Transfer Mode Cell Relay Service Interworking (FRASI) CIR per PVC at the rates set forth in 5.8.3.D following. Standard CIR provides Customer with a mechanism for prioritizing data on a per PVC basis across a given UNI. Both Standard and FRASI CIR allow a sustained throughput at a chosen rate without having any frames designated "discard eligible" under normal operating conditions. FRASI CIR enables the creation of a PVC that traverses both a Frame Relay switch and an ATM switch. FRASI CIR permits PVC paths to be established between Exchange Access Frame Relay Service subscribers and Exchange Access Asynchronous Transfer Mode Cell Relay Service users when interworking is available. Various CIR rates are available; however, 0 (zero) CIR is only available with 56 Kbps ports provided under a Rate Stability Plan.

The customer must specify which UNI Port with Access Line Connection or UNI Port Only the Standard PVC CIR will be billed against. FRASI CIR will be billed against the Exchange Access Frame Relay Service. CIR cannot be billed against an NNI port.

### D. Optional UNI Features

Additional PVCs per UNI

This feature provides the assignment of additional DLCIs. When any two DLCIs are mapped together, a PVC is created. Additional PVCs per UNI are subject to availability of facilities.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

D. Optional UNI Features (Continued)

**Group Addressing** 

Effective October 2, 2003, Group Addressing is no longer available to new customers. Moves, additions or changes to existing Group Addressing assignments will not be permitted. This feature allows Customer to send a single data unit across established PVCs to several intended recipients. The recipients are identified by an assignment of a group address used as the destination for the Frame Relay data unit. The DLCI assigned is now a group address. Committed Information Rate Optional Feature

CIR is no longer available to new customers as an optional feature. Effective October 2, 2003, CIR is a chargeable basic component of Frame Relay Service as specified in 5.8.1.C preceding.

For customers of record prior to October 2, 2003, CIR is a feature that provides Customer with a mechanism for prioritizing data on a per PVC basis across a given UNI. A CIR allows a sustained throughput at a chosen rate without having any frames designated "discard eligible" under normal operating conditions. Various CIR rates are available; however, 0 (zero) CIR is only available with 56 Kbps and 64 Kbps ports.

### Back-up UNI

Back-up UNI service is a disaster avoidance and disaster recovery feature that consists of a Primary UNI and a Backup UNI and incorporates PVC remapping capabilities of the Frame Relay network. The Primary UNI is terminated at the primary customer host location and in normal operation services PVCs between the primary host location and various customer remote locations. A second UNI, which is designated by the customer as a Backup UNI, is installed and terminated at the customer's backup host location. During normal operations, no PVCs are mapped to the Backup UNI. The customer is required to purchase both UNIs.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

D. Optional UNI Features (Continued)

Back-up UNI (Continued)

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

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

A Backup UNI, which may serve as a backup to one or more Primary UNIs, can only back up one Primary UNI at a time. A Backup UNI must be the same port speed or greater than the Primary UNI(s).

In the event of failure of a Primary UNI, digital access line or host location, the Customer must contact the Company to request that the Primary UNI be remapped to the Backup UNI.

Upon restoral of the Primary UNI service, the Customer must contact the Company to request that the Backup UNI be remapped back to the Primary UNI.

A nonrecurring charge applies, per Backup UNI, per occurrence, when a customer requests an activation of the Backup UNI service.

There is no charge for deactivation of Backup UNI service.

Premier PVC

Premier PVC is a chargeable optional feature that enables customers to assign a higher priority of service to Customer-specified PVCs. Premier PVC is suitable for PVCs carrying delay-sensitive, loss-intolerant data. Premier PVC is offered with both Standard Committed Information Rate (CIR) and FRASI CIR.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.1 General (Continued)

## E. Maintenance Window

Network maintenance and network upgrades for XA-FRS are performed during the hours of 11:00 PM and 8:00 AM. At times, during the hours of maintenance activity, it will be necessary to place Customer's service in an inactive (out of service) condition. The amount of time that this scheduled out of service condition will exist is called a "maintenance window". Company will provide Customer notice prior to the maintenance window. Maintenance window activity could be scheduled for consecutive days.

### 5.8.2 Rate Regulations

#### A. Administrative Charge

An administrative charge will be applied whenever a change is made to Customer's Frame Relay configuration, at Customer's request. Such changes are defined as those rearrangements necessary to add, delete, or rearrange Customer's configuration, including changes to Customer's selected carrier. Although multiple changes may be caused by such actions, only one administrative charge will apply.

The administrative charge also applies for Customer-requested changes to the bandwidth capacity of existing circuits (e.g., 384 kbps to 1.536 Mbps, or 4 Mbps to 10 Mbps). However, if Customer upgrades between service levels (e.g., 384 kbps to 4 Mbps) or downgrades between service levels (e.g., 10 Mbps to 1.536 Mbps) the nonrecurring service charge associated with the new service level applies.

The administrative charge applies per occurrence, per UNI Port With Access Line Connection, UNI Port Only Connection or NNI Port Only Connection.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.2 Rate Regulations (Continued)

### B. Term Pricing Plans

Extended commitment periods of one, three and five year Term Pricing Plans (TPPs) are available for UNI Port With Access Line Connections.

Extended commitment periods of one, three and five year TPPs are available for UNI Port Only Connections.

Customers may add UNI Port With Access Line Connections or UNI Port Only Connections to an existing TPP within the initial 12 months. Otherwise, additional UNI Port With Access Line Connections or UNI Port Only Connections will be in a separate and new term pricing plan.

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

- Renew for the same commitment period;
- 2. Commit to a new term of shorter or longer duration;
- 3. Arrange for a change of service; or
- 4. Discontinue service.

The following regulation applies to customers who enter into TPPs on or after March 12, 2003. In the event the customer does not select one of the above options, the customer will be converted to the shortest term period available under tariff (i.e., month-to-month, one year, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the customer terminates the service within sixty (60) days of the conversion date.

The following regulation applies to customers who entered into TPPs prior to March 12, 2003. Upon expiration of a TPP, the prevailing rates will apply.

Frontier Telephone Companies

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-41

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.2 Rate Regulations (Continued)
    - C. Termination Charges: Month-to-Month and TPPs

All UNI Port with Access Line Connections, UNI Port Only Connections and NNI Port Only Connections provided on a month-to-month basis are subject to a minimum service period of one month. If the Customer terminates service prior to the minimum service period, the minimum service period charges apply.

TPPs are subject to early termination liability. In the event that service is disconnected in full or in part prior to completion of the current term period, the customer shall be liable for an early termination charge, except as noted following.

For customers who enter into TPPs on or after March 12, 2003, 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 Port Only/Port With Access Line Connections X Remainder of Term = Termination Charge

For customers who entered into TPPs prior to March 12, 2003, the amount of the early termination charge will be the lessor of:

 an amount equal to the difference between the month-to-month monthly rate and the monthly rate for the selected term plan times the number of months or fraction thereof that the service was in effect;

or

2. 25% of the monthly rate for the selected TPP times the number of months or fraction thereof remaining in the term.

In addition, if a 56 Kbps, 64 Kbps, 384 Kbps, or 1.536 Mbps UNI Port With Access Line Connection is disconnected within the first 36 months, Customer is liable for the full installation charge associated with the Month-to-Month Plan.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-42

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.2 Rate Regulations (Continued)

C. Termination Charges: Month-to-Month and TPPs (Continued)

For customers who enter into TPPs on or after March 12, 2003, early termination charges will apply only to those rate elements under a term commitment plan. If any rates for the service are increased during the term period, exclusive of any increase due to local, state or federal fees, taxes or surcharges, the customer may terminate the service without incurring an early termination charge.

For customers who entered into TPPs prior to March 12, 2003, if rates increase during the plan period, Customer may discontinue service without termination liability within 120 days of the rate increase. If the service is continued after the 120 days, all current plan terms and conditions apply, including termination liability.

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

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

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

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

- 1. The value of the new term commitment is equal to or greater than the remaining value of the current term commitment;
- Both the existing and the new services are provided solely by the Company; and
- 3. The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.
- # Service availability limited. Refer to # footnote on Page 5-31.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.2 Rate Regulations (Continued)

# D. Nonrecurring Charges

A nonrecurring charge applies for each installation of certain XA-FRS rate elements. This charge also applies whenever the facility associated with the rate element is moved, changed or rearranged. The charge is not applicable when Customer converts from one term plan to another and there is no physical change in the service facility.

The UNI Port With Access Line Connection and UNI Port Only Connection nonrecurring charge for a Month-to-Month service is subject to refund, if Customer converts to a TPP within the first six months of service and a waiver of the nonrecurring installation charge for the TPP was in effect at the time the Month-to-Month service was installed. No credit is given for time-in-service while Customer was on the Month-to-Month plan.

### E. Rate Stability Plans

- This XA-FRS Rate Stability Plan (RSP) allows Customers to stabilize their 56 Kbps UNI Port With Access Line Connection recurring and nonrecurring rates for an extended period of three or five years. For Rate Stability Plan customers of record prior to October 2, 2003 a CIR feature is included in the RSP UNI Port With Access Line Connection rate as an option at speeds of 0, 8, 16 and /or 28 Kbps. Effective October 2, 2003, the CIR feature is a required component included in the RSP UNI Port with Access Line Connection rate at speeds of 0, 8, 16 and/or 28 Kbps.
- 2. An RSP Customer is guaranteed not to experience a rate increase during the term of the three or five year RSP. The XA-FRS RSP is available to any Customer who meets the minimum service requirements and agrees to the plan's terms and conditions.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.2 Rate Regulations (Continued)
    - E. Rate Stability Plans (Continued)
      - 3. The minimum service requirements are:
        - a. A commitment of a minimum of 300 56 Kbps UNI Port With Access Line Connections. Effective May 21, 2005 and thereafter, the minimum commitment of 300 56 Kbps UNI Port With Access Line Connections will also apply to Rate Stability Plans established prior to May 21, 2005.
        - b. Installation of at least 300 UNI Port With Access Line Connections within one year of the initial order or contract date.
      - 4. The terms and conditions are:
        - a. The nonrecurring and recurring rates will remain stable or decrease during the plan period.
        - b. New 56 Kbps UNI Port With Access Line Connections may be added to the plan subject to the plan's rate, expiration date, and terms and conditions.
        - c. Optional features of XA-FRS (excluding 0, 8, 16, and 28 Kbps CIR for customers of record prior to October 2, 2003) are not a part of the plan but are available at standard rates.
        - d. In the first year, Customers will be billed for UNI Port With Access Line Connections as they are installed. After the initial 12 months of the RSP, Customers are billed for the minimum commitment level and for each UNI Port With Access Line Connection that exceeds 300.
        - e. There is no minimum revenue guarantee or termination liability for any UNI Port With Access Line Connections in excess of the 300 minimum commitment level. CIR is not subject to termination liability.

### Frontier Telephone Companies

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-45

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.2 Rate Regulations (Continued)
    - E. Rate Stability Plans (Continued)
      - 4. (Continued)
        - f. After the first year of the plan, Customers are eligible for limited portability, i.e., the replacement of a UNI Port With Access Line Connection in the plan that is being disconnected with another 56 Kbps UNI Port With Access Line Connection for the balance of the RSP. Portability requirements are:
          - The replacement service can not already be in any Company term plan.
          - The orders to disconnect the existing service and connect the replacement must be received at the same time, with due dates within 90 days of each other, and related by a RPON.
          - No more than 30 percent of the plan's access connections in place on the first year's anniversary date and each succeeding anniversary date are eligible for portability over the next 12 months. When more than 30 percent of the access connections in the plan are replaced in the same contract year (from last anniversary date to the next), all access connections in the plan will be billed at the month-to-month rate for the remainder of that contract year.
          - The replacement service is subject to any applicable nonrecurring charges.

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-46

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.2 Rate Regulations (Continued)
    - E. Rate Stability Plans (Continued)
      - 4. (Continued)
        - g. Existing 56 Kbps UNI Port With Access Line Connections can be converted to a RSP Service without additional charge as long as there is no change in the physical facility.
        - h. If at any time during the plan period, Customer disconnects all plan services or the plan in its entirety, Customer will be subject to termination liability. Termination liability will be the lesser amount of the two calculations following:
          - The sum of the monthly rates for 300 UNI Port With Access Line Connections for the remainder of the RSP period.
          - An amount equal to the difference between the monthly rate for basic month-to-month service and the selected RSP monthly rate times each UNI Port With Access Line Connection disconnected times the number of months the plan was in service.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-47

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.8 Exchange Access Frame Relay Service# (Continued)

### 5.8.2 Rate Regulations (Continued)

### F. Customer Service Management

Customer Service Management (CSM) is a value-added optional feature that provides Customers with web-based reports. These reports give the Customer the ability to extract "read-only" network traffic information regarding their networks thereby allowing Customers to monitor and manage their network performance. CSM is both billed and built per Customer Division. A Customer Division is a group of access connections and Permanent Virtual Circuits (PVCs) designated by the Customer. A Customer Division may include no more than 500 access connections and 1,000 PVCs.

CSM will be provided where conditions and facilities permit.

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

A Monthly Recurring Rate and a Nonrecurring Charge apply for each CSM arrangement. The customer will be charged on a per Customer Division basis.

### G. Premier PVC

A monthly recurring charge applies, on a per CIR basis, for each Premier PVC optional feature ordered. This charge applies in addition to the Standard or FRASI CIR rate element.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

# 5.8 Exchange Access Frame Relay Service# (Continued)

# 5.8.3 Rates and Charges

## A. UNI Connections

### 1. UNI Port With Access Line Connection

	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
56 kbps		
Month-to-Month	\$186.51	\$ 875.00
One Year Term	175.00	N/A
Three Year Term	170.52	N/A
Five Year Term	159.86	N/A
64 kbps		
Month-to-Month	186.51	875.00
One Year Term	175.00	N/A
Three Year Term	170.52	N/A
Five Year Term	159.86	N/A
384 kbps		
Month-to-Month	367.00	1,000.00
One Year Term	351.50	N/A
Three Year Term	336.00	N/A
Five Year Term	325.00	N/A
1.536 Mbps		
Month-to-Month	463.60	1,000.00
One Year Term	445.00	N/A
Three Year Term	426.30	N/A
Five Year Term	404.99	N/A
4 Mbps		
Month-to-Month	3,000.00	1,500.00
One Year Term	2,850.00	N/A
Three Year Term	2,451.23	N/A
Five Year Term	2,238.08	N/A

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-31.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - A. UNI Connections (Continued)
      - 1. UNI Port With Access Line Connection (Continued)

C Mb	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
6 Mbps Month-to-Month	3,450.00	1,500.00
One Year Term	3,275.00	1,500.00 N/A
Three Year Term	2,770.95	N/A
Five Year Term	2,770.93	N/A
Tive real reilli	2,337.00	IN/A
10 Mbps		
Month-to-Month	\$3,700.00	\$1,500.00
One Year Term	3,500.00	N/A
Three Year Term	2,900.00	N/A
Five Year Term	2,750.00	N/A
22 Mbps		
Month-to-Month	4,000.00	1,500.00
One Year Term	3,800.00	N/A
Three Year Term	3,197.25	N/A
Five Year Term	2,984.10	N/A
44.736 Mbps		
Month-to-Month	4,500.00	1,500.00
One Year Term	4,300.00	N/A
Three Year Term	4,049.85	N/A
Five Year Term	3,836.70	N/A

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

# 5.8 Exchange Access Frame Relay Service# (Continued)

# 5.8.3 Rates and Charges (Continued)

# A. UNI Connections (Continued)

# 2. UNI Port Only Connection

,	Monthly Charge	Nonrecurring Charge
56 kbps		<del></del>
Month-to-Month	\$ 80.00	\$300.00
One Year TPP	70.00	N/A
Three Year TPP	60.00	N/A
Five Year TPP	50.00	N/A
64 kbps		
Month-to-Month	80.00	300.00
One Year TPP	70.00	N/A
Three Year TPP	60.00	N/A
Five Year TPP	50.00	N/A
128 kbps		
Month-to-Month	157.33	300.00
One Year TPP	100.00	N/A
Three Year TPP	92.00	N/A
Five Year TPP	83.00	N/A
256 kbps		
Month-to-Month	165.00	300.00
One Year TPP	138.00	N/A
Three Year TPP	105.00	N/A
Five Year TPP	95.00	N/A
384 kbps		
Month-to-Month	170.00	300.00
One Year TPP	150.00	N/A
Three Year TPP	125.00	N/A
Five Year TPP	110.00	N/A

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

# 5.8 Exchange Access Frame Relay Service# (Continued)

# 5.8.3 Rates and Charges (Continued)

# A. UNI Connections (Continued)

# 2. UNI Port Only Connection

54011	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
512 kbps Month-to-Month	185.00	300.00
One Year TPP	167.00	N/A
Three Year TPP	146.00	N/A
Five Year TPP	124.00	N/A
768 kbps		
Month-to-Month	200.00	300.00
One Year TPP	175.00	N/A
Three Year TPP	155.00	N/A
Five Year TPP	135.00	N/A
1.536 Mbps		
Month-to-Month	\$ 220.00	\$300.00
One Year TPP	195.00	N/A
Three Year TPP	165.00	N/A
Five Year TPP	145.00	N/A
4 Mbps		
Month-to-Month	790.00	300.00
One Year TPP	770.00	N/A
Three Year TPP	675.00	N/A
Five Year TPP	620.00	N/A
6 Mbps		
Month-to-Month	830.00	300.00
One Year TPP	810.00	N/A
Three Year TPP	700.00	N/A
Five Year TPP	660.00	N/A

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - A. UNI Connections (Continued)
      - 2. UNI Port Only Connection

	10 Mbpo	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
	10 Mbps Month-to-Month	900.00	300.00
	One Year TPP	870.00	N/A
	Three Year TPP	760.00	N/A
	Five Year TPP	700.00	N/A
	22 Mbps		
	Month-to-Month	1,200.00	300.00
	One Year TPP	1,160.00	N/A
	Three Year TPP	1,010.00	N/A
	Five Year TPP	970.00	N/A
	44.736 Mbps		
	Month-to-Month	1,500.00	300.00
	One Year TPP	1,350.00	N/A
	Three Year TPP	1,125.00	N/A
	Five Year TPP	1,050.00	N/A
В.	NNI Port Connection		
Б.	NNI FOR COMPECTION	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
	1.536 Mbps	\$ 234.47	300.00
	44.736 Mbps	2,877.53	300.00

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - C. Standard Committed Information Rates

	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
0/8/16/28/32 Kbps	\$ 5.00	\$12.00
56/64 Kbps	2.00	12.00
0 Kbps##	1.00	N/A
4 Kbps	1.00	N/A
8 Kbps	1.00	N/A
16 Kbps	1.00	N/A
28 Kbps	2.00	N/A
32 Kbps	2.00	N/A
42 Kbps	2.00	N/A
48 Kbps	2.00	N/A
64 Kbps	3.00	N/A
96 Kbps	4.00	N/A
128 Kbps	5.00	N/A
192 Kbps	7.00	N/A
256 Kbps	9.00	N/A
288 Kbps	10.00	N/A
384 Kbps	12.00	N/A
512 Kbps	25.00	N/A
576 Kbps	26.00	N/A
768 Kbps	28.00	N/A
1.152 Mbps	36.00	N/A

## Only available with 56 kbps ports provided under a Rate Stability Plan

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - C. Standard Committed Information Rates (Continued)

	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
1.536 Mbps	\$ 46.00	N/A
2 Mbps	50.00	N/A
3 Mbps	75.00	N/A
4 Mbps	100.00	N/A
5 Mbps	125.00	N/A
6 Mbps	150.00	N/A
7 Mbps	175.00	N/A
8 Mbps	200.00	N/A
9 Mbps	225.00	N/A
10 Mbps	250.00	N/A
11 Mbps	275.00	N/A
12 Mbps	300.00	N/A
13 Mbps	325.00	N/A
14 Mbps	350.00	N/A
15 Mbps	375.00	N/A
16 Mbps	400.00	N/A
17 Mbps	425.00	N/A
18 Mbps	450.00	N/A
19 Mbps	475.00	N/A
20 Mbps	500.00	N/A
21 Mbps	525.00	N/A
22 Mbps	550.00	N/A

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - D. Exchange Access Frame Relay Service to Exchange Access
      Asynchronous Transfer Mode Cell Relay Service Interworking (FRASI)
      Committed Information Rates

	Monthly	Nonrecurring
	<u>Charge</u>	<u>Charge</u>
4 Kbps	\$ 1.00	N/A
8 Kbps	1.00	N/A
16 Kbps	1.00	N/A
28 Kbps	2.00	N/A
32 Kbps	2.00	N/A
42 Kbps	2.00	N/A
48 Kbps	2.00	N/A
64 Kbps	3.00	N/A
96 Kbps	4.00	N/A
128 Kbps	5.00	N/A
192 Kbps	7.00	N/A
256 Kbps	9.00	N/A
288 Kbps	10.00	N/A
384 Kbps	12.00	N/A
512 Kbps	25.00	N/A
576 Kbps	26.00	N/A
768 Kbps	28.00	N/A
1.152 Mbps	36.00	N/A
1.536 Mbps	46.00	N/A
2 Mbps	50.00	N/A
3 Mbps	75.00	N/A
4 Mbps	100.00	N/A
5 Mbps	125.00	N/A
6 Mbps	150.00	N/A
7 Mbps	175.00	N/A
8 Mbps	200.00	N/A
9 Mbps	225.00	N/A

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

- 5.8 Exchange Access Frame Relay Service# (Continued)
  - 5.8.3 Rates and Charges (Continued)
    - D. Exchange Access Frame Relay Service to Exchange Access
      Asynchronous Transfer Mode Cell Relay Service Interworking (FRASI)
      Committed Information Rates (Continued)

	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
10 Mbps	250.00	N/A
11 Mbps	275.00	N/A
12 Mbps	300.00	N/A
13 Mbps	325.00	N/A
14 Mbps	350.00	N/A
15 Mbps	375.00	N/A
16 Mbps	400.00	N/A
17 Mbps	425.00	N/A
18 Mbps	450.00	N/A
19 Mbps	475.00	N/A
20 Mbps	500.00	N/A
21 Mbps	525.00	N/A
22 Mbps	550.00	N/A

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-57

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

# 5.8 Exchange Access Frame Relay Service# (Continued)

# 5.8.3 Rates and Charges (Continued)

			Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
E.	Adm	inistrative Charge	.00	\$50.00
F.	Opti	onal UNI Features		
	1.	Each Additional PVC	N/A	0.00
	2.	Group Address*	N/A	35.00
	3.	Committed Information Rates*	charges	the rates and set forth in receding.
	4.	Backup UNI, per activation	N/A	200.00
	5.	Premier PVC** per CIR	10.00	N/A
G.		Port With Access Line Connection by Rate Stability Plans		
		ear RSP ear RSP	\$106.00 95.80	\$0.00 0.00
H.	Cust	tomer Service Management		
	Per	Customer Division	150.00	350.00

Frontier Telephone Companies

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

### 5.9 Exchange Access Asynchronous Transfer Mode Cell Relay Service I

This service is offered in the following states: West Virginia. Service availability is limited. See terms and conditions as shown in Section 5.9.4.M.

### 5.9.1 General

Exchange Access Asynchronous Transfer Mode Cell Relay Service (XA ATM-CRS) is a telecommunications transport and switching service that provides for high speed connectivity between and among widely distributed locations. It is a fast packet, cell-based technology which supports user applications requiring high and flexible bandwidth, high-performance transport and switching. Service availability is limited.

XA ATM-CRS is comprised of an interface, User Network Interface (UNI) at the ATM switch and a transport facility that terminates on compatible Customer Premises Equipment (CPE). These UNI Access Connections are connected via Permanent Virtual Circuits (PVCs) using ATM technology over Company's fast packet network.

All XA ATM-CRS access facilities must be in conformance with American National Standards Institute (ANSI) standards. Technical specifications for this service are described in the following technical publications:

TR-NWT-001112, Issue 1 GR-1110-CORE, Issue 1 Issued: December 1994 Issued: September 1994

GR-1248-CORE, Issue 2 SR-3330, Issue 1

Issued: September 1995 Issued: November 1994

Frontier Telephone Companies

# Original Page 5-59

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.1 General (Continued)

The compatible Network Channel Interfaces (NCIs) and Network Channel Codes (NCCs) are:

<u>NCI</u>	NCC
DS1	HCE6
DS3	HFC6
OC3c	OBA6

#### 5.9.2 Definitions

A. User Network Interface (UNI) Access Connection: a dedicated digital transmission facility that provides a connection from Customer's premises to a UNI on a XA ATM-CRS switch. The effective maximum data rate for these services are DS1 (1.54 Mbps), DS3 (45 Mbps), or OC3c (155 Mbps).

Each UNI Access Connection requires at least one PVC. Customer may elect to subscribe to multiple PVCs. This feature is established over the UNI Access Connection via address mapping which enables Customer to have virtual connections to various locations.

B. Permanent Virtual Connection (PVC)

Permanent Virtual Connection (PVC): a Cell Relay Service used to provide a virtual connection between two Customer locations. The PVC defines a path across the UNI Access Connection between Customer premises and Company's ATM switch. Each UNI Access Connection requires the purchase of at least one PVC. The path is set up by Company based on information contained on a service order rather than by dial-up signaling.

Virtual Channel Connection (VCC): a type of PVC with independent identity and defined service parameters that is provisioned via Service Order, and cannot be altered by Customer without additional Service Order activity.

Virtual Path Connection (VPC): a type of PVC with defined service parameters that is provisioned via a Service Order. Customers may provision their own virtual connections within the VPC provided that the sum of the service parameters of all of the virtual channels do not exceed the aggregate service parameters of the VPC.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.2 Definitions (Continued)

- C. Constant Bit Rate (CBR): a steady flow of user information required to support applications where variable delays in transmission can negatively impact the information content. Examples of applications requiring CBR are voice, and some types of video.
- D. Variable Bit Rate (VBR): a flow of information that is bursty, and does not flow at a constant rate. An example of an application using VBR is Local Area Network (LAN) traffic.
- E. Sustained Cell Rate (SCR): the maximum rate at which VBR cells may be constantly transmitted with a high assurance that no cells will be lost. Cells transmitted within the SCR have the highest priority of the VBR traffic, and will not be tagged as eligible for discard.
- F. Peak Cell Rate (PCR): the highest available rate of information transfer on a VBR connection, and the continuous cell rate allowed for CBR. Cells exceeding the SCR and below the peak cell rate will be limited to a maximum burst size.
- G. Maximum Burst Size (MBS): the maximum number of cells that can be passed to the service provider's network in a single burst at a rate that exceeds the SCR, but does not exceed the PCR assigned to the VBR connection. Cells exceeding the MBS will be declared as nonconformant and will be discarded.
- H. Cell Delay Variation Tolerance (CDV): the amount of variation permitted for early arrival of clusters of cells at the source UNI Access Connection. Cells exceeding the tolerance will be declared nonconformant and will be discarded.
- I. Synchronous Optical Network (SONET): an international standard for the transmission of high capacity bandwidth over optical facilities. As defined in this service offering, the OC3c SONET connection is provisioned as a survivable service with an alternate (not diverse) route.
  - Direct Fiber: one type of SONET UNI Access Connection that is provisioned using an optical fiber interface with no alternate routing.
- J. Unspecified Bit Rate (UBR): a bursty, not steady, flow of data with varying bandwidth requirements (e.g., LAN traffic). UBR, unlike PCR and SCR, is the lowest class of service and has no quality of service parameters.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.3 Service Descriptions

#### A. Basic Service

The basic XA ATM-CRS service consists of transport of ATM cells of information from one UNI Access Connection to another or other UNI Access Connections. Each cell relay cell is delivered unchanged from the source to the destination. The service consist of:

 UNI Access Connection(s) from Customer's premises and from the premises of Customer's designated Interexchange Carrier to Company XA ATM-CRS network. The maximum bandwidths of the UNI Access Connections are 1.54 Mbps for the DS1, 45 Mbps for the DS3 and 155 Mbps for the OC3c.

The OC3c UNI Access Connection is available provisioned over SONET facilities which provide a survivable service that automatically switches to an alternate (not diverse) path in the event of a failure on the primary path, or provisioned over a direct fiber with no alternative route.

- An initial quantity of VBR bandwidth for use by Customer is included within the UNI Access Connection. The initial quantity of bandwidth will be 10 Mbps for a DS3 UNI Access Connection or 25 Mbps for an OC3c UNI Access Connection. For the DS1 UNI Access Connection, the line speed of 1.54 Mbps will be the initial quantity of bandwidth.
- 3. At least one PVC is required per UNI Access Connection. The PVC is purchased separately from the UNI Access Connection. PVCs can be either a VCC or a VPC of constant, variable, or unspecified bit rate.
- 4. UBR is provided only when the following minimums are met and at no additional monthly charge: 25 Mbps of VBR, CBR or a combination of both for a DS3 UNI; any combination of at least 75 Mbps for an OC3c UNI; and any combination of 1.536 Mbps for a DS1 UNI.

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-62

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.3 Service Descriptions (Continued)

### B. Optional Features

- 1. Additional variable bit rate bandwidth on the UNI Access Connection above the initial quantity in increments of 5 Mbps on DS3 or 10 Mbps on OC3c.
- 2. Upgrade of the initial bandwidth of the DS3 UNI Access Connection from 10 Mbps of VBR bandwidth to any combination of CBR, and VBR bandwidth.
- 3. Upgrade of the bandwidth of the DS1 UNI Access Connection from VBR to any combination of VBR and CBR.
- 4. Upgrade of OC3c UNI Access Connection from the initial 25 Mbps of VBR bandwidth to any combination of CBR, and VBR bandwidth.
- 5. Upgrade of additional VBR bandwidth over and above the initial bandwidth to any combination of VBR and CBR bandwidth.



### Frontier Telephone Companies

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-63

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.3 Service Descriptions (Continued)

#### C. Service Parameters

1. CBR

Peak/Sustained Cell Rate Customer selected in increments of 64

Kbps up to the maximum speed of the

UNI Access Connection.

Nonconforming Cells Discarded

Cell Delay Variation

Tolerance (CDVT) OC3c = 50 microseconds

DS3 = 150 microseconds DS1 = 600 microseconds

2. VBR (Non Real Time)

Sustained Cell Rate(SCR) Customer specified in increments of 64

Kbps up to the maximum available capacity of the UNI Access Connection.

3. VBR (Non Real Time) (Continued)

Peak Cell Rate (PCR) 200% of Sustained Rate up to the

maximum capacity of the line.

Cell Delay Variation

Tolerance (CDVT) OC3c = 50 microseconds

DS3 = 150 microseconds

Maximum Burst Size (MBS) 100 Cells

Nonconforming Cells

Exceeding Peak Rate Discarded

Exceeding Sustained

Cell Rate plus MBS Tagged and/or Discarded

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.4 Terms and Conditions

- A. XA ATM-CRS is ordered under the Access Order provisions on a negotiated interval. And, the cancellation charges for UNI Access Connections are the same as those for the underlying high capacity services.
- B. Customer must provide compatible equipment (e.g., routers, access concentrators, ATM switches, etc.) in accordance with interface specifications defined in the ATM Forum UNI 3.0 or 3.1 specifications for PVCs.
- C. Company's responsibility is limited to the furnishing of communications facilities and switches suitable for the digital UNI.
- D. Company is not responsible for the installation, operation, or maintenance of any equipment provided by Customer.
- E. CPE must be capable of receiving clock and recovering clock from the network.
- F. An administrative charge is applicable whenever a customer initiated change is made to the parameters of a VCC or VPC regarding speed or other service parameters that do not involve remapping of the connection. Such changes are defined as those requiring no changes in physical facilities, and are able to be implemented from Company's Network Control Center without dispatch of a technician to Customer location. The charge is applied on a per VCC/VPC basis.
- G. A move or relocation of an UNI Access Connection will be treated as a termination of the existing service and the establishment of a new service. All charges applicable to a new installation apply.

Frontier Telephone Companies

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-65

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.4 Terms and Conditions (Continued)

H. XA ATM-CRS is available on a month-to-month basis or for periods of three and five years.

#### 1. Minimum Period

The minimum period for service purchased on a month-to-month basis is six months.

## 2. Termination Liability

For the three year term, Customer is liable for 100% of the monthly charges for 36 months.

For the five year term, Customer is liable for 100% of the monthly charges for 60 months

or

as an alternative, the liability is equal to the total number of months completed in the term period times the difference between the three year and five year rate. For example, if 48 months had elapsed from the time the service was in effect, and the five year plan had initially been selected, the alternative termination liability would be calculated using the following formula:

Terminating Liability = 48 X (the three year rate minus the five year rate).

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

### 5.9.4 Terms and Conditions (Continued)

- I. Customer may at any time request to move from an existing term to a new term of equal or greater length without incurring termination liability for the initial term.
- J. Once a term period has expired, the prevailing rates will apply.
- K. If rates increase during the plan period, Customer may discontinue service without termination liability within 120 days of the rate increase. If the service is continued after the 120 days, all current plan terms and conditions apply, including termination liability.
- L. Company network maintenance and network upgrades are normally performed during the hours of 11:00 PM and 8:00 AM. When it is necessary to place Customer's service in an inactive (out of service) condition, Company will provide Customers reasonable and timely notification to minimize impacts to Customer's service.
- M. All Company XA ATM-CRS Customers (existing service), whose total monthly recurring charges are greater than the total monthly charges for similar functions offered in ATM CRS as specified in Section 5.10 following, may convert all of their existing services to those offered in the new service offering prior to February 18, 2000, without termination liability.

The following applies to those Customers whose total monthly recurring charges under the existing tariff structure are less than the monthly recurring charges for similar functions in the new tariff service.

Customers that have existing Term Plans may continue under their current arrangement until the end of their term.

Existing Customers may add, delete, or change bandwidth, Virtual Circuits and Quality of Service levels under the existing terms and conditions as long as the existing UNIs remain in service under their existing Term Plans.



## Frontier Telephone Companies

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-67

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

## 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

6
5

			Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
A.		er Network Interface (UNI) ess Connection, each		
	1.	Month to Month		
		DS1 UNI Access Connection with 1.544 Mbps of VBR Bandwidth \$ 650.00	\$ .00	
		DS3 UNI Access Connection with 10 Mbps of VBR Bandwidth 3,700.00	.00	
		OC3c SONET UNI Access Connection with 25 Mbps of VBR Bandwidth	7,250.00	.00
		OC3c SONET Direct Fiber UNI Access Connection with 25 Mbps of VBR Bandwidth 4,550.00	.00	



## Frontier Telephone Companies

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-68

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

5.9.5 Rates and Charg	ges (Continued)
-----------------------	-----------------

Rate	es and	Charges (Continued)	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
A.		er Network Interface (UNI) ess Connection, each (Continued)		
	2.	Three Year Term		
		DS1 UNI Access Connection with 1.544 Mbps of VBR Bandwidth \$575.00	\$.00	
		DS3 UNI Access Connection with 10 Mbps of VBR Bandwidth 3,100.00	.00	
		OC3c SONET UNI Access Connection With 25 Mbps of VBR Bandwidth	6,000.00	.00
		OC3c Direct Fiber UNI Access Connection with 25 Mbps of VBR Bandwidth	3,800.00	.00

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-69

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

5.9.5	Rates and Charges (Continued)		Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
	A.	User Network Interface (UNI) Access Connection, each (Continued)		
		3. Five Year Term		
		DS1 UNI Access Connection with 1.544 Mbps of VBR Bandwidth \$525.00	\$.00	
		DS3 UNI Access Connection with 10 Mbps of VBR Bandwidth 2,800.00	.00	
		OC3c SONET UNI Access Connection With 25 Mbps of VBR Bandwidth	5,500.00	.00
		OC3c Direct Fiber UNI Access Connection with 25 Mbps of VBR Bandwidth	3,450.00	.00
	В.	Permanent Virtual Connections (PVCs)		

Constant Bit Rate VCC

Variable Bit Rate VCC

Constant Bit Rate VPC

Variable Bit Rate VPC

\$50.00

50.00

50.00

50.00

\$ 2.00

2.00

4.00

4.00



## Frontier Telephone Companies

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-70

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.9 <u>Exchange Access Asynchronous Transfer Mode Cell Relay Service I</u> (Continued)

5.9.5	Rates and Charges (Continued)
<b>545</b>	Rates and Unardes II Ontiniied)

Rate	es and	Charges (Continued)	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
C.	Opti	onal Features		
	1.	For DS1 UNI Access Connections		
		Upgrade of 1.544 Mbps of VBR Bandwidth to any Combination of VBR And CBR 10.00	50.00	
	2.	For DS3 UNI Access Connections		
		5 Mbps of VBR SCR Bandwidth above the initial 10 Mbps	100.00	50.00
		Upgrade of initial 10 Mbps VBR Bandwidth to any Combination of CBR And VBR	\$ 50.00	\$50.00
		Upgrade of 5 Mbps VBR Bandwidth over the initial 10 Mbps to any Combination of CBR or VBR Bandwidth	25.00	50.00



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-71

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

#### Exchange Access Asynchronous Transfer Mode Cell Relay Service I (Continued) 5.9

	_		
5.9.5	Rates	and Charges	(Continued)

Rate	es and	d Charges (Continued)	Monthly <u>Charge</u>	Nonrecurring <u>Charge</u>
C.	Opt	ional Features (Continued)		
	3.	For OC3c SONET UNI Access Connections		
		10 Mbps of VBR SCR Bandwidth above the initial 25 Mbps	150.00	50.00
		Upgrade of initial 25 Mbps VBR Bandwidth to any Combination of CBR or VBR Bandwidth	\$125.00	\$50.00
		Upgrade of 10 Mbps VBR Bandwidth over the Initial 25 Mbps to any Combination of CBR or VBR Bandwidth	50.00	50.00
D.	Adn	ninistrative Charge		
	VC	e or more changes made to a C or VPC on a single Service er - Per VCC/VPC changed		75.00

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-72

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service#

This service is offered in the following states: West Virginia.

### 5.10.1 General

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 two interfaces: User Network Interface (UNI) and Interim Inter-switch Signaling Protocol (IISP). These interfaces are 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 Customer's premises to one of Company's ATM CRS hubs. UNIs are also provisioned as an Inverse Multiplexing ATM (IMA) Port With Access Line Connection as defined in 5.10.2.B and as a Port Only Connection as defined in 5.10.11.A.

# Except as otherwise specified for Effective Bandwidth for Incremental UNIs, effective May 9, 2007, orders for new ATM CRS are no longer permitted. The Company will continue to provide ATM CRS pursuant to this Section 5.10 on any existing ATM CRS that is in-service as of May 9, 2007, or any order for ATM CRS that is placed with the Company prior to May 9, 2007 (collectively, Existing ATM CRS), subject to the following condition:

For any Existing ATM CRS that is currently subscribed to a term plan (i.e., commitment periods of 1-, 2-, 3-, and 5-years), the Company will continue to provide the Existing ATM CRS for an additional six (6) months beyond the expiration date of the customer's current commitment period at the prevailing rates of the current term plan, or until the customer replaces the Existing ATM CRS with a comparable Company provided service, or discontinues service, whichever comes first. Subject to availability of facilities and equipment, moves and/or changes to the Existing ATM CRS are permitted during the term plan commitment period provided that such moves and/or changes do not require a new commitment period. Orders for additional Effective Bandwidth for Incremental UNIs, including additions and changes, are permitted during the term plan commitment period and the six (6) month extension period and will be provided on a month-to-month basis at the prevailing rate of the current term plan. No other additions, changes or moves are permitted during the six (6) month extension period.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

#### 5.10.1 General (Continued)

The IISP Port With Access Line Connection, which is essentially equivalent to the UNI, provides a link from an Interexchange Carrier or another Customer's network to one of Company's ATM CRS hubs. IISPs are also provisioned as a Port Only Connection as defined in 5.10.11.A.

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

UNIs, IISPs, Port Only Connections, PVCs and SVCs are further described in Section 5.10.2 following.

ATM CRS may be connected to the following Company provided services, where such connections are technically and operationally feasible, as determined by the Company:

- digital subscriber line service
- point-to-point SONET service
- dedicated SONET ring service
- internet protocol virtual private network service
- frame relay service

#### 5.10.2. Service Components

The major components of ATM CRS are:

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

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.2 <u>Service Components</u> (Continued)

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

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

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

UNIs are provided at nominal data rates of 1.544 Mbps (DS1), 45 Mbps (DS3), 155.52 Mbps (OC3c) or 622 Mbps (OC12c). OC3c and OC12c are provided as a concatenated signal in STS-3c and STS-12c (Synchronous Transport Signal) formats, respectively. The actual throughput into CRS is less than the line rate for the UNI provided.

The rates and charges for a UNI are differentiated by the capacity of the UNI, the location where the UNI originates (i.e., customer-designated premises) and, mileage ranges (expressed as tiers) associated with extending the UNI to the wire center designated as the ATM CRS hub.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

#### 5.10.2 Service Components (Continued)

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

The OC3c UNI Port with Access Line Connections are provisioned on either Unprotected, Protected or Protected Diverse Synchronous Optical Network (SONET) facilities. The OC12c UNIs are provisioned on either Protected or Protected Diverse SONET facilities. SONET is a standards-based fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format. ATM OC3c and OC12c Protected SONET UNI Port with Access Line Connections are provisioned over SONET as a survivable service with an alternate (not diverse) facility between the central office and Customer premises. OC3c and OC12c Protected Diverse UNI Port with Access Line Connections are provisioned over SONET as a survivable service with an alternate and diverse path between the ATM CRS hub and Customer premises. Unprotected SONET UNI is a type of OC3c ATM UNI that is provisioned over SONET with no alternate facility between the ATM CRS hub and the customer premises. DS3, OC3c, OC12c and other interfaces, both electrical and optical, are supported and defined to technical specifications.

B. UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection

UNI IMA Port With Access Line Connection permits the provisioning of bandwidth greater than DS1 and less than DS3 by binding together multiple DS1 facilities. The inverse multiplexer at each end of the connection aggregates and deaggregates multiple parallel DS1 leased lines into a single higher speed link. IMA will be offered as Full bandwidth only. Two to six DS1 facilities will be permitted in an IMA group providing nominal aggregated bandwidth from three to nine megabits per second. IMA allows for all class of service parameters up to the combined nominal line rate of the aggregated DS1s and all PVCs and/or SVCs that will fit within the bandwidth. Ordering of DS1s within an IMA group must be done in ascending order. Disconnecting DS1s within an IMA group must be done in a descending order. Customer must purchase a minimum of two IMA DS1s.

Requests to change existing UNI Port With Access Line Connections to UNI IMA Port With Access Line Connections will be treated as a disconnect and new install. Termination liability charges, as set forth in Section 5.10.11.D, may apply.

Effective: November 1, 2018



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-76

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

- 5.10.2 Service Components (Continued)
  - C. Interim Inter-switch Signaling Protocol (IISP) Port With Access Line Connection

IISP Port With Access Line Connection, which is similar to the Full UNI described in (A) preceding, allows network-to-network connectivity through the use of PVCs and/or SVCs. The IISP interface specifies how a Company ATM CRS switch sends and receives data from an Interexchange Carrier's or other Customer's ATM CRS network. The IISP connection consists of a 1.544 Mbps (DS1), a 44.736 Mbps (DS3), 155.52 Mbps (OC3c) or a 622 Mbps (OC12c) digital facility from the IC's network to Company's ATM CRS switch and the appropriate port interface connection. The monthly rates for the IISP Port with Access Line Connection interfaces apply only to the Tier 1 mileage band (0 to 5 miles).

The IISP Port with Access Line Connection, like the UNI Port with Access Line Connection, includes Unprotected, Protected and Protected Diverse OC3c and Protected and Protected Diverse OC12c SONET IISPs. ATM OC3c and OC12c Protected SONET IISP connections are provisioned as a survivable service with an alternate (not diverse) facility. ATM Protected Diverse OC3c and OC12c SONET IISP connections are provisioned over SONET as a survivable service with an alternate diverse path between the local serving office and the Customer premises. Unprotected fiber is one type of OC3c ATM IISP that is provisioned using an optical fiber interface with no alternate facility. DS3, OC3c, OC12c and other interfaces, both electrical and optical, are supported and defined to the technical specifications.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

### 5.10.2 <u>Service Components</u> (Continued)

### D. Port Only Connections

Port Only Connections can be established as User to Network Interface (UNI) arrangement or Interim Inter-switch Signaling Protocol (IISP). UNI and IISP Port Only Connection provides an ATM Cell Relay Network connection based on the port connection speed of DS1, DS3, OC3c and OC12c. The ATM port speed will be consistent with the channel speed of the access channel. The actual throughput of Customer traffic cannot exceed the bandwidth of the access channel and port speed.

UNI Port Only Connections are available as either Incremental or Full. IISP Port Only Connections are available as 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 or IISP Port Only is available on a one-year, two-year, three-year and five-year term.

Customers may access Port Only connections via Company-provided digital access facilities or via facilities provided by another carrier. When access facilities are provided by the Company, the associated regulations, rates and charges under the appropriate Company Tariff shall apply in addition to the regulations, rates and charges associated with ATM CRS. 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.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-78

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

#### 5.10.2 Service Components (Continued)

### E. Permanent Virtual Circuit (PVC)

The PVC defines a virtual connection across a UNI or IISP between Customer premises and Company's ATM hub. Each UNI or IISP 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 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). When ATM is used to access IP VPN Service, a PVC is a logical channel connecting a Customer designated premises with the IP-VPN network. 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 bidirectional allowing for ATM 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 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.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.2 <u>Service Components</u> (Continued)

F. 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 or IISP that is SVC signal enabled will be provided with a SVC ICD (International Code Designator) prefix that will uniquely identify the UNI or IISP. Customer 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 (PCR) of 20 Mbps and a maximum Sustained Cell Rate (SCR) 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/IISPs. A CUG functionally groups UNIs/IISPs 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/IISPs, creating an SVC community of interest.

- G. Reserved
- H. Reserved

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.2 <u>Service Components</u> (Continued)

#### I. Effective Bandwidth

Effective bandwidth is the bandwidth reserved for each logical connection (PVC or SVC) that is set up across a UNI or IISP. It is based on the PCR, 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 or IISP cannot exceed the total bandwidth available on the UNI or IISP. 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.

#### 5.10.3 Technical Specifications

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

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

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

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

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

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

The technical specifications for IISP interfaces are delineated in ATM Forum Interim Inter-switch Signaling Protocol, af-pnni-0026.000.

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 compatible premises equipment or devices must also be in accordance with the specifications defined in these documents.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

#### 5.10.4 Provision of Service

ATM Cell Relay Service Includes:

- A. At least one UNI Port With Access Line or Port Only, two UNI IMA Port With Access Lines, or one IISP With Access Line or Port Only from an Interexchange Carrier or other customer's network to the C.O. based ATM CRS switch which has maximum nominal capacity for either DS1 (1.544Mbps), DS3 (45 Mbps), OC3c (155 Mbps) or OC12c (622 Mbps). The OC3c UNIs are provisioned over unprotected, protected or protected diverse SONET facilities. The OC12c UNIs are provisioned over protected or protected diverse SONET facilities. The protected OC3c and OC12c SONET facilities provide a backup facility that automatically switches in the event of a failure on the primary facility. The unprotected OC3c SONET facilities do not have an alternate facility.
- 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 DS1, DS3, OC3c and OC12c 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:
  - (a) Constant Bit Rate (CBR)
  - (b) Variable Bit Rate real time (VBRrt)
  - (c) Variable Bit Rate non-real time (VBRnrt)
  - (d) Unspecified Bit Rate (UBR)

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.5 <u>Tier Structure for Local Serving Offices</u>

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

#### 5.10.6 Service Functionality

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

### 5.10.7 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 or IISP.

2. Non-conforming cells:

Discarded

3. Cell Delay Variation Tolerance (CDVT):

DS1 = 600 microseconds

DS3 = 600 microseconds

OC3c = 600 microseconds

OC12c = 600 microseconds

Effective: November 1, 2018

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

### 5.10.7 <u>Class of Service Parameters</u> (Continued)

- 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 or IISP.

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):

DS1 = 600 microseconds

DS3 = 600 microseconds

OC3c = 600 microseconds

OC12c = 600 microseconds

Maximum Burst Size (MBS):

Customer selectable

Default is 100 cells on PVCs

As signaled on SVCs

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

- 5.10.7 <u>Class of Service Parameters</u> (Continued)
  - C. Unspecified Bit Rate
    - 1. No Class of Service descriptors
    - 2. Best effort service
    - 3. Cells exceeding network capacity are discarded

### 5.10.8 Special Conditions

- A. ATM CRS is available where facilities and conditions permit in accordance with the regulations specified in Sections 2 and 3 preceding. 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 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 Customer service.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.8 Special Conditions (Continued)

C. Credit Allowance for Service Interruptions Applicable to Customers in the States of Massachusetts, New York/Connecticut, and Rhode Island Who Entered into Extended Service Plans Prior to September 12, 2003

In case of an interruption to any service, allowance for the period of interruption, if not due to the negligence of Customer, shall be as follows:

(a) For ATM CRS, no credit shall be allowed for an interruption of less than 30 minutes. Customer shall be credited for an interruption of 30 minutes or more at the rate of 1/1440 of the monthly charges for the facility or service for each period of 30 minutes or major fraction thereof, i.e., over 15 minutes, that the interruption continues.

The monthly charges used to determine the credit shall be as follows.

(b) For ATM CRS, the monthly charge shall be the total of all monthly rate element charges associated with the respective services (i.e., ATM UNIs, logical channels, EIA Ports, IISP interfaces, Port Only connection and bandwidth).

### 5.10.9 Responsibility of the Customer

Customer must provide the necessary premises equipment or ATM device capable of interfacing with Company's CRS. Customer-provided equipment or ATM device must conform to the technical specifications.

#### 5.10.10 Responsibility of the Company

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

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

#### 5.10.11 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
- UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection
- User Network Interfaces (UNIs) Port Only Connection
- Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port With Access Line Connection
- Interim Inter-Switch Signaling Protocol (IISP) Interface, Port Only Connection
- Permanent Virtual Circuits (PVCs)
- Switched Virtual Circuits (SVCs)
- Effective Bandwidth for Incremental UNIs or IISPs
- Closed User Groups (CUG)
- Administrative Charge
  - User Network Interfaces (UNIs) Port
     With Access Line Connection

A monthly rate applies on a per Port With Access Line Connection basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, SONET, Protected or Protected Diverse) of the access connection. UNI Port With Access Line Connection is offered under one-year, two-year, three-year or five-year Extended Service Plans (ESP). No nonrecurring charges apply.

2. UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection

A monthly rate applies on a per DS1 basis for each sequential DS1 ordered up to the desired bandwidth (i.e., 3 Mbps, 4.5 Mbps, 6 Mbps, 7.5 Mbps or 9 Mbps). IMA is offered as a one-year, two-year, three-year or five-year ESP. DS1s within an IMA group added subsequent to the initial installation of the first two DS1s will have their own term period. No nonrecurring charges apply.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

- A. Rate Elements (Continued)
  - 3. User Network Interfaces (UNIs) Port Only Connection

A monthly rate applies on a per Port Only basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental) of the port only connection. UNI Port Only is offered under one-year, two-year, three-year or five-year Extended Service Plans (ESP). No nonrecurring charges apply.

4. Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port With Access Line Connection

A monthly rate applies on a per Port With Access Line Connection basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, SONET) of the access connection. IISP Port With Access Line Connection is only available in Tier 1 and is offered under one-year, two-year, three-year or five-year Extended Service Plans (ESP). No nonrecurring charges apply.

5. Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port Only Connection

A monthly rate applies on a per Port Only Connection basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental) of the port only connection. IISP Port Only Connection is only available in Tier 1 and is offered under one-year, two-year, three-year or five-year Extended Service Plans (ESP). No nonrecurring charges apply.

6. Permanent Virtual Circuit (PVCs)

A nonrecurring charge per order for Virtual Channel Connection (VCC) or Virtual Path Connection (VPC). PVCs are ordered per UNI or IISP. If multiple UNIs or IISPs are involved, a nonrecurring charge will apply to each UNI or IISP 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 or IISPs.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

### A. Rate Elements (Continued)

#### 7. Switched Virtual Circuit (SVCs)

A nonrecurring charge per order for Virtual Channel Connection (VCC) or Virtual Path Connection (VPC). SVCs are ordered per UNI or IISP. If multiple UNIs or IISPs are involved, a nonrecurring charge will apply to each UNI or IISP Port on which the virtual connections will reside. The nonrecurring charge does not apply when SVCs are installed at the same time as the respective UNIs or IISPs.

#### 8. Effective Bandwidth for Incremental UNIs

A monthly rate applies for incremental UNIs for CBR or VBR PVC and SVC bandwidth at 5 Mbps for DS3 or OC3c and at 15 Mbps for OC12c. A monthly rate also applies for incremental UNIs for UBR PVC and SVC bandwidth for DS3, OC3c and OC12c. No nonrecurring charges apply.

The monthly rate for PVC and/or SVC Unspecified Bit Rate bandwidth will be waived when the combined Variable Bit Rate and Constant Bit Rate 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.

Incremental UNIs with UBR PVC of zero bandwidth are provided at no charge to Customer only when Asynchronous Transfer Mode Cell Relay Service is used to transport Company-provided Digital Subscriber Line (DSL) service.

### 9. Closed User Group (CUG)

A nonrecurring charge applies per order and per UNI/ IISP 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 or IISP.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

# A. Rate Elements (Continued)

### 10. Administrative Charge

A nonrecurring charge applies (per order, per UNI or IISP) when a customer initiates a change to one or more of the following: UNI or IISP bandwidth, PVCs, class of service parameters, and/or other service parameters that do not require changes in physical facilities and that can be provisioned by the Company without the dispatch of a technician to the customer location. For each 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 or IISP.

#### B. Minimum Period

The minimum period for ATM CRS is 1 month.

#### C. Extended Service Plan

The ATM CRS UNI Port with Access Line Connection, UNI IMA Port With Access Line Connection, UNI Port Only, IISP Port with Access Line Connection, and IISP Port Only rate elements are available under an ESP.

Term commitments of one-, three- and five-years are available to ATM CRS UNI Port With Access Line Connection, UNI Port Only, IISP Port With Access Line Connection and IISP Port Only Customers and term commitments of one-, two-, three- and five-years are available to UNI IMA Port With Access Line Connections at the applicable rates set forth in 5.10.12, regardless of when they subscribe to an ESP arrangement.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

D. Termination Liability

In the event ATM CRS is terminated by the Customer prior to completion of the initial term commitment period, Termination Liability charges, as set forth following, will apply.

In the event the service is terminated by the Customer prior to completion of the current term commitment period, the Customer shall be liable for an early termination charge, except as noted below. For customers who enter into Extended Service Plans on or after September 12, 2003, the amount of the early termination charge will be 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:

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

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

For customers who entered into Extended Service Plans prior to September 12, 2003, the amount of the early termination charge will be the lesser of:

- 1. 25% X MRC X # of Lines/Channels/Paths X Remainder of Term = Termination Charge
- 2. As an alternative for the Five-Year ESP, provided the service was installed for at least 36 months, the liability is equal to the total number of months completed in the term period times the difference between the three year and five year rate. For example, if 48 months had elapsed from the time the service was in effect, and the five year plan had initially been selected, the alternative Termination Liability would be calculated using the following formula:

Termination Liability = 48 X (the three year rate minus the five year rate)

Effective: November 1, 2018

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-91

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

D. Termination Liability (Continued)

For customers who entered into Extended Service Plans prior to September 12, 2003, if rates increase during the plan period, Customer may discontinue service without termination liability within 120 days of the rate increase. If the service is continued after the 120 days, all current plan terms and conditions apply, including termination liability.

**End of Term Options** 

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

Renew for the same commitment period, Commit to a new term period of shorter or longer duration, Arrange for a change of service, or Discontinue service.

In the event the Customer does not select one of the above options, the Customer will be converted to the shortest-term period available under tariff (i.e., 1-year, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the Customer terminates the service within sixty (60) days of the conversion date.

Frontier Telephone Companies

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-92

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

D. Termination Liability (Continued)

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

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

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

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

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

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

Both the existing and the new services are provided solely by the Company, and

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

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-93

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

### 5.10.11 Application of Rates and Charges (Continued)

### E. Moves

When Customer requests a move or relocation of the UNI or IISP, the move or relocation will be treated as a termination of the existing service and the establishment of a new service.

### F. Special Facilities Routing

Customer may request that the facilities used to provide ATM CRS be specially routed.

## G. Acceptance Testing

At no additional charge, Company will, at 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.

### H. Access Order Provisions

ATM CRS is ordered under the Access Order provisions.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

## 5.10.12 Rates and Charges

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

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each Full				
	Tier 1 (0 to 5 Miles)	\$ 650.00	\$ 618.00	\$ 565.00	\$ 525.00
	Tier 2 (Over 5 to 25 Miles)	650.00	618.00	565.00	525.00
	Tier 3 (Over 25 to 50 Miles)	650.00	618.00	565.00	525.00
2.	DS3, each Full				
	Tier 1 (0 to 5 Miles)	2,890.00	2,746.00	2,460.00	2,315.00
	Tier 2 (Over 5 to 25 Miles)	3,955.00	3,757.00	3,360.00	3,165.00
	Tier 3 (Over 25 to 50 Miles)	6,640.00	6,308.00	5,645.00	5,315.00
	Incremental				
	Tier 1 (0 to 5 Miles)	2,250.00	2,138.00	1,915.00	1,800.00
	Tier 2 (Over 5 to 25 Miles)	3,315.00	3,149.00	2,815.00	2,650.00
	Tier 3 (Over 25 to 50 Miles)	6,000.00	5,700.00	5,100.00	4,800.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

Frontier Telephone Companies

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART I (Continued)

## 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

## 5.10.12 Rates and Charges (Continued)

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

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
3.	OC3c SONET, each Full, Protected	<u></u>	<u> </u>	<u>. 1610</u>	<u></u>
	Tier 1 (0 to 5 Miles)	\$ 5,390.00	\$ 5,121.00	\$ 4,580.00	\$ 4,310.00
	Tier 2 (Over 5 to 25 Miles)	7,325.00	6,959.00	6,225.00	5,860.00
	Tier 3 (Over 25 to 50 Miles)	9,890.00	9,396.00	8,405.00	7,900.00
	Full, Protected Diverse				
	Tier 1 (0 to 5 Miles)	5,840.00	5,548.00	4,965.00	4,670.00
	Tier 2 (Over 5 to 25 Miles)	7,775.00	7,386.00	6,610.00	6,220.00
	Tier 3 (Over 25 to 50 Miles)	10,340.00	9,823.00	8,790.00	8,272.00
	Full, Unprotected				
	Tier 1 (0 to 5 Miles)	4,890.00	4,646.00	4,155.00	3,910.00
	Tier 2 (Over 5 to 25 Miles)	6,700.00	6,365.00	5,695.00	5,360.00
	Tier 3 (Over 25 to 50 Miles)	9,390.00	8,921.00	7,980.00	7,510.00
	Incremental, Protected				
	Tier 1 (0 to 5 Miles)	3,250.00	3,088.00	2,765.00	2,600.00
	Tier 2 (Over 5 to 25 Miles)	5,190.00	4,931.00	4,410.00	4,150.00
	Tier 3 (Over 25 to 50 Miles)	7,750.00	7,363.00	6,590.00	6,200.00
	Incremental, Protected Diverse				
	Tier 1 (0 to 5 Miles)	3,700.00	3,515.00	3,145.00	2,960.00
	Tier 2 (Over 5 to 25 Miles)	5,640.00	5,358.00	4,795.00	4,510.00
	Tier 3 (Over 25 to 50 Miles)	8,200.00	7,790.00	6,970.00	6,560.00
	Incremental, Unprotected				
	Tier 1 (0 to 5 Miles)	2,750.00	2,613.00	2,340.00	2,200.00
	Tier 2 (Over 5 to 25 Miles)	4,565.00	4,337.00	3,875.00	3,650.00
	Tier 3 (Over 25 to 50 Miles)	7,250.00	6,888.00	6,165.00	5,800.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

## 5.10.12 Rates and Charges (Continued)

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

		One-Year	Two-Year	Three-Year	Five-Year
		<u>Rate</u>	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>
4.	OC12c SONET, each				
	Full, Protected				
	Tier 1 (0 to 5 Miles)	\$15,935.00	\$15,138.00	\$13,545.00	\$12,748.00
	Tier 2 (Over 5 to 25 Miles)	21,741.00	\$20,654.00	18,480.00	17,393.00
	Tier 3 (Over 25 to 50 Miles)	29,435.00	\$27,963.00	25,020.00	23,548.00
	Full, Protected Diverse				
	Tier 1 (0 to 5 Miles)	17,229.00	16,368.00	14,645.00	13,784.00
	Tier 2 (Over 5 to 25 Miles)	23,035.00	21,883.00	19,580.00	18,428.00
	Tier 3 (Over 25 to 50 Miles)	30,729.00	29,193.00	26,120.00	24,583.00
	Incremental, Protected				
	Tier 1 (0 to 5 Miles)	9,750.00	9,263.00	8,295.00	7,800.00
	Tier 2 (Over 5 to 25 Miles)	15,570.00	14,792.00	13,230.00	12,450.00
	Tier 3 (Over 25 to 50 Miles)	23,250.00	22,088.00	19,770.00	18,600.00
	Incremental, Protected Diverse				
	Tier 1 (0 to 5 Miles)	11,053.00	10,500.00	9,395.00	8,842.00
	Tier 2 (Over 5 to 25 Miles)	16,858.00	16,015.00	14,330.00	13,487.00
	Tier 3 (Over 25 to 50 Miles)	24,553.00	23,325.00	20,870.00	19,642.00
		۷۳,۵۵۵.00	20,020.00	20,070.00	10,042.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

### 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

## 5.10.12 Rates and Charges (Continued)

B. UNI Inverse Multiplexing ATM (IMA) Port with Access Line Connection

		•			
Jurisdiction: W	est Virginia	One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	First DS1, each (1.536 Mbps total bar	ndwidth)*			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	\$669.50 669.50 669.50	\$636.03 636.03 636.03	\$581.95 581.95 581.95	\$540.75 540.75 540.75
2.	Second DS1, each (3 Mbps total band	dwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	650.00 650.00 650.00	617.50 617.50 617.50	565.00 565.00 565.00	525.00 525.00 525.00
3.	Third DS1, each (4.5 Mbps total band	lwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	611.00 611.00 611.00	580.45 580.45 580.45	531.10 531.10 531.10	493.50 493.50 493.50
4.	Fourth DS1, each (6 Mbps total band	width)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	611.00 611.00 611.00	580.45 580.45 580.45	531.10 531.10 531.10	493.50 493.50 493.50

<sup>\*</sup> Customer must purchase a minimum of two IMA DS1s.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

## 5.10.12 Rates and Charges (Continued)

B. UNI Inverse Multiplexing ATM (IMA) Port with Access Line Connection (Continued)

Jurisdiction:	West Virginia	(Continued)

<u>ansaiction</u> . W	rest virginia (Continued)	One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
5.	Fifth DS1, each (7.5 Mbps total band	dwidth)			
	Full				
	Tier 1 (0 to 5 Miles)	611.00	580.45	531.10	493.50
	Tier 2 (Over 5 to 25 Miles)	611.00	580.45	531.10	493.50
	Tier 3 (Over 25 to 50 Miles)	611.00	580.45	531.10	493.50
6.	Sixth DS1, each (9 Mbps total bands	width)			
	Full				
	Tier 1 (0 to 5 Miles)	611.00	580.45	531.10	493.50
	Tier 2 (Over 5 to 25 Miles)	611.00	580.45	531.10	493.50
	Tier 3 (Over 25 to 50 Miles)	611.00	580.45	531.10	493.50

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

- 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)
- 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)
  - 5.10.12 Rates and Charges (Continued)
    - C. Interim Inter-Switch Signaling Protocol (IISP) Interface Port With Access Line Connection Tier 1

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each Full	\$ 650.00	\$ 618.00	\$ 565.00	\$ 525.00
2.	DS3, each Full	2,890.00	2,746.00	2,460.00	2,315.00
3.	OC3c SONET, each Full, Protected Full, Protected Diverse Full, Unprotected	5,390.00 5,840.00 4,890.00	5,121.00 5,548.00 4,646.00	4,580.00 4,964.00 4,155.00	4,310.00 4,672.00 3,910.00
4.	OC12c SONET, each Full, Protected Full, Protected Diverse	15,935.00 17,229.00	15,138.00 16,368.00	13,545.00 14,645.00	12,748.00 13,784.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

5.10.12 Rates and Charges (Continued)

D. UNI Port Only Connection

4	D04	One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each Full	\$ 390.00	\$371.00	\$ 332.00	\$ 312.00
2.	DS3, each				
	Incremental	1,125.00	1,069.00	956.00	900.00
	Full	1,765.00	1,677.00	1,500.00	1,412.00
3.	OC3c				
	Incremental	1,625.00	1,544.00	1,381.00	1,300.00
	Full	3,665.00	3,482.00	3,115.00	2,932.00
4.	OC12c				
	Incremental	4,875.00	4,631.00	4,144.00	3,900.00
	Full	10,125.00	9,619.00	8,606.00	8,100.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART I (Continued)

## 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

5.10.12 Rates and Charges (Continued)

- D. UNI Port Only Connection
- E. IISP Port Only Connection

4	D04	One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each Full	\$ 390.00	\$ \$371.00	\$ 332.00	\$ 312.00
2.	DS3, each Full	1,765.00	1,677.00	1,500.00	1,412.00
3.	OC3c Full	3,665.00	3,482.00	3,115.00	2,932.00
4.	OC12c Full	10,125.00	9,619.00	8,606.00	8,100.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

### 5.10.12 <u>Rates and Charges</u> (Continued)

### F. Optional Features

 Permanent Virtual Circuits (PVCs) for DS1, DS3, OC3c or OC12c SONET

(a)	Virtual Channel Connections (VCCs)	Nonrecurring <u>Charge*</u>
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	\$75.00 75.00 75.00 75.00
(b)	Virtual Path Connections (VPCs)	
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	75.00 75.00 75.00 75.00

A nonrecurring administrative charge applies per service order. PVCs/SVCs are ordered per UNI, IISP or IDSR arrangement ATM port. If multiple UNIs, IISPs or IDSR arrangement ATM ports are involved, a service order will apply to each UNI, IISP or IDSR arrangement ATM port on which the virtual connections will reside. The nonrecurring charge will be waived when PVCs/SVCs are installed at the same time as the respective UNI, IISP or IDSR arrangement ATM port.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

#### 5.10 Asynchronous Transfer Mode Cell Relay Service# (Continued)

## 5.10.12 Rates and Charges (Continued)

- F. Optional Features (Continued)
  - 2. Switched Virtual Circuits (SVCs) for DS1, DS3, OC3c or OC12c SONET

(a)	Virtual Channel Connections (VCCs)	Nonrecurring <u>Charge*</u>
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	\$75.00 75.00 75.00 75.00
(b)	Virtual Path Connections (VPCs)	
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	75.00 75.00 75.00 75.00

<sup>\*</sup> A nonrecurring administrative charge applies per service order. PVCs/SVCs are ordered per UNI, IISP or IDSR arrangement ATM port. If multiple UNIs, IISPs or IDSR arrangement ATM ports are involved, a service order will apply to each UNI, IISP or IDSR arrangement ATM port on which the virtual connections will reside. The nonrecurring charge will be waived when PVCs/SVCs are installed at the same time as the respective UNI, IISP or IDSR arrangement ATM port.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

# 5.10.12 <u>Rates and Charges</u> (Continued)

# G. Bandwidth for Incremental UNIs

	One-Year	Two-Year	Three-Year	Five-Year	Nonrecurring
	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>	<u>Rate</u>	Charge *
CBR or VBR PVC Bandwidth, 5 Mbps Effective bandwidth DS3 or OC3c	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00
CBR or VBR PVC Bandwidth, 15 Mbps Effective bandwidth OC12C	175.00	175.00	175.00	175.00	75.00
UBR PVC Bandwidth up to UNI line rate Includes SVC Bandwidth DS3 OC3c OC12c	375.00	375.00	375.00	375.00	75.00
	1,125.00	1,125.00	1,125.00	1,125.00	75.00
	3,500.00	3,500.00	3,500.00	3,500.00	75.00

<sup>\*</sup> NRC applies per service order. The NRC will be waived when bandwidth is installed at the same time as the respective UNI or IISP.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART I (Continued)

# 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

# 5.10.12 <u>Rates and Charges</u> (Continued)

# G. Bandwidth for Incremental UNIs (Continued)

	One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Yea <u>Rate</u>	r Five-Year <u>Rate</u>	Nonrecurring Charge *
CBR or VBR SVC Bandwidth, 5 Mbps Effective bandwidth DS3 or OC3c	75.00	75.00	75.00	75.00	75.00
CBR or VBR SVC Bandwidth, 15 Mbps Effective bandwidth OC12C	175.00	175.00	175.00	175.00	75.00
UBR SVC Bandwidth, includes PVC bandwidth Up to NNI line rate DS3 OC3c OC12c	375.00 1,125.00 3,500.00	375.00 1,125.00 3,500.00	375.00 1,125.00 3,500.00	375.00 1,125.00 3,500.00	75.00 75.00 75.00

<sup>\*</sup> NRC applies per service order. The NRC will be waived when bandwidth is installed at the same time as the respective UNI or IISP.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-72.

Original Page 5-106

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART I (Continued)

# 5.10 <u>Asynchronous Transfer Mode Cell Relay Service</u># (Continued)

# 5.10.12 <u>Rates and Charges</u> (Continued)

H. Closed User Groups (CUG) Per UNI/IISP

	Monthly Rate	Nonrecurring Charge *
Type Each CUG	None	\$75.00
Each subsequent CUG member added to a CUG	None	75.00

<sup>\*</sup> Nonrecurring charge applies per service order. The nonrecurring charge will be waived when a CUG is installed at the same time as the respective UNI or IISP.



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-107

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II

5.1	Reserved for Future Use
5.2	Reserved for Future Use

- 5.3 Reserved for Future Use
- 5.4 Reserved for Future Use
- 5.5 Reserved for Future Use
- 5.6 Reserved for Future Use
- 5.7 Reserved for Future Use
- 5.8 Reserved for Future Use

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-108

Effective: May 1, 2020

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III#

This service is offered in the following states: Illinois, Indiana, Michigan, Nevada, North Carolina, (C) Ohio, South Carolina and Wisconsin. (C) Frame Relay Service III is available where facilities and conditions permit.

#### 5.9.1 General

Frame Relay Service III (FRSIII) is a medium to high speed, connection-oriented, packet switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible customer equipment across a wide area for the purpose of interstate access. FRSIII allows for the transfer of variable length frames (packets). Frames are relayed by virtual connections, i.e., frames travel a fixed path through the network although bandwidth is not dedicated to each virtual connection.

- The following footnote is not applicable to the 56/64 kbps and 128 kbps UNI Port With Access Line Connection, 56/64 kbps and 128 kbps UNI Port Only Connection, 56/64 kbps and 128 kbps Backup UNI, PVC CIR, Interzone Transport, and FRS to ATM Interworking rate elements of FRSIII. Effective May 9, 2007, orders for new FRSIII are no longer permitted. The Company will continue to provide FRSIII pursuant to this Section 5.9 on any existing FRSIII that is in-service as of May 9, 2007, or any order for FRSIII that is placed with the Company prior to May 9, 2007 (collectively, Existing FRS), subject to the following conditions:
  - a. The Company will continue to provide Existing FRS to a term plan customer for an additional six (6) months beyond the expiration date of the customer's current commitment period at the existing rates of the current term plan, or until the customer replaces the Existing FRS with a comparable Company provided service, or discontinues service, whichever comes first. Subject to the availability of network facilities, moves are permitted provided that such moves do not require a new commitment period. Administrative changes that do not result in a physical change to the underlying UNI/NNI are permitted. Additions are not permitted.
  - b. The Company will continue to provide Existing FRS UNIs/NNIs purchased on a month-tomonth basis until November 9, 2007, or until the customer replaces the Existing FRS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.1 General (Continued)

This service uses Permanent Virtual Circuits (PVCs). A PVC is a logical channel from one Frame Relay port to another frame Relay port. PVCs are bi-directional channels that are established and dis-established via the Service Order process.

The Frame Relay standard specifies an address field called the Data Link Connection Identifier (DLCI). The DLCI is a Frame Relay term defining a 10-bit field of the address field and identifies data links and their service parameters. The DLCI specifies a connection (e.g., customer premises to Local Exchange Carrier (LEC) switch or LEC switch to interexchange carrier network). A PVC is comprised of two or more DLCIs.

This service, comprised of two Interfaces, a User Network Interface (UNI) and a Network-to-Network Interface (NNI), allows FRSIII compatible Customer Premises Equipment (CPE) to originate or terminate interexchange services. All UNI access facilities must be in conformance with American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992. All NNI access facilities must be in conformance with ANSI standards T1.606b-1993 and Telcordia Technical Reference TR-TSV061370.

FRS may be connected to the following Company provided services, where such connections are technically and operationally feasible, as determined by the Company:

- asynchronous transfer mode cell relay service
- digital subscriber line service
- frame relay service
- internet protocol virtual private network service

FRSIII provides high speed throughput over digital facilities at speeds of 56/64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps or 44.736 Mbps. Physical access to the Frame Relay network is provided via a UNI Port with Access Line Connection or via either a UNI Port Only Connection or an NNI Port Only Connection with a digital transmission facility.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.1 General (Continued)

A 56 Kbps Digital Data Service, FT1, DS1, or a DS3 rated Special Access Line (SAL) may be used as the UNI Port Only Connection transport link. An FT1, DS1 or DS3 rated SAL may be used as the NNI Port Only Connection transport link. When available, DS1 transport must be equipped with both B8ZS capability and Extended Super Frame (ESF).

A High Capacity Digital DS3 (44.736 Mbps) rated SAL may be used as the 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps UNI Port Only Connection dedicated access link. A 44.736 Mbps High Capacity rated SAL, may be used as the 44.736 Mbps UNI Port Only or 44.736 Mbps NNI Port Only Connection dedicated access link to a DS3 FRSIII Packet Switch at a transmission speed of 44.736 Mbps. Special transport mileage applies, as appropriate. DS3 transport must be equipped with B3ZS.

#### 5.9.2 Service Components

FRSIII is comprised of the service components which are described in more detail following:

User-to-Network Interface (UNI)

- UNI Port with Access Line Connection
- UNI Port Only Connection

Private Network-to-Network Interface (NNI) Port Only Connection Permanent Virtual Circuit Committed Information Rate (PVC CIR) Optional Features and Functions

#### A. User Network Interface (UNI) Connections

The UNI is a standard interface used to connect the end user to the FRSIII Network. It receives the data frame from 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.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-111

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

- 5.9.2 <u>Service Components</u> (Continued)
  - A. User Network Interface (UNI) Connections (Continued)
    - The UNI Port With Access Line consists of a 56 Kbps/64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 1.536 Mbps, or 44.736 Mbps digital facility from Customer premise to the Frame Relay network and the appropriate port interface connection. UNI Port with Access Line Connection also includes the transport from a Customer's serving wire center to a Frame Relay Switch, when required. The effective data rate of this line is 56/64 Kbps and 128 Kbps for narrowband connectivity and 256 Kbps, 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps, and 44.736 Mbps for wideband connectivity.
    - 2. UNIs are also provisioned as a Port Only Connection. UNI Port Only Connection provides a FRSIII Network connection based on the port connection speeds of 56 Kbps, 64 Kbps, 128 Kbps, 256 Kbps, 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22 Mbps, and 44.736 Mbps. The channel speed of the access channel must be sufficient to accommodate the FRSIII port speed. Each port can accommodate multiple PVCs.

UNI Port Only Connections do not include transport from a Customer's serving wire center to a Frame Relay Switch. Such transport, when required, is the responsibility of the Customer and must be ordered separately. Rates and charges for transport to the Frame Relay Switch apply in addition to UNI Port Only rates and charges.

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 regulations, rates and charges for the specific type of access service apply as specified in Frontier Telephone Companies Tariff FCC. No. 5 or 6, as appropriate.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.2 <u>Service Components</u> (Continued)

- A. User Network Interface (UNI) Connections (Continued)
  - 2. (Continued)

For UNI Port Only Connections ordered to provide a Frame Relay Service network connection from an Expanded Interconnection Service Arrangement cross connect, associated transport must be ordered from Frontier Telephone Companies Tariff FCC. No. 5, Section 5 or Tariff FCC. No. 6, Section 7, as applicable. The access facilities rates and charges are in addition to the rates and charges for FRSIII. Interconnection charges to connect access line services provided by another carrier 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 Customer.

- Additional UNI Port With Access Line Connections and UNI Port Only Connections, referred to as Backup UNIs, may be ordered under Section 5.9.2.D following for disaster recovery of one or multiple UNI Port With Access Line Connections and UNI Port Only Connections.
- B. Private Network-to-Network Interface (NNI) Port Connection

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

The NNI is a standard interface for connecting two Frame Relay switches and includes elements such as bi-directional polling to assist network providers with gaining information on the status of the networks being connected.

The NNI specifies how an FRSIII switch sends and receives data from a Frame Relay interexchange carrier's or other customer's network.

The NNI Port Only Connection provides connection of a digital transmission facility (384 Kbps/FT1, 1.536 Mbps/DS1 and 44.736 Mbps/DS3) to Company's FRSIII Network.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.2 Service Components (Continued)

B. Private Network-to-Network Interface (NNI) Port Connection (Continued)

NNI Port Only Connections do not include transport from a Customer's serving wire center to a Frame Relay Switch. Such transport, when required, is the responsibility of the Customer and must be ordered separately. Rates and charges for transport to the Frame Relay Switch apply in addition to the NNI Port Only rates and charges.

Customers may access NNI 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 regulations, rates, and charges for the specific type of access service apply as specified in Frontier Telephone Companies Tariff FCC. No. 5 or 6, as applicable. For NNI Port Only Connections ordered to provide a Frame Relay Service network connection from an Expanded Interconnection Service Arrangement cross connect, associated transport must be ordered from Frontier Telephone Companies Tariff FCC. No. 5, Section 5 or Tariff FCC. No. 6, Section 7, as applicable. The access facilities rates and charges are in addition to the rates and charges for FRSIII. Interconnection charges to connect access line services provided by another carrier 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 Customer.

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

PVCs are the end-to-end logical channels defined in software tables that connect UNIs and NNIs in the Company Frame Relay network as requested by Customer. In order to establish a PVC, Committed Information Rate (CIR), Be (Burst Excess) and at least two DLCIs must be specified.

CIR is the maximum information rate at which Customer's traffic will be admitted to the Frame Relay network without being designated eligible for discard. No PVC can have a CIR greater bit rate than the lower of the two port speeds connected by the PVC segment.

CIR provides Customer with a mechanism for prioritizing data on a per PVC basis across a given UNI/NNI. A CIR allows a sustained throughput at a chosen rate without having any frames designated "discard eligible" under normal operating conditions.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

- 5.9.2 Service Components (Continued)
  - C. Permanent Virtual Circuit Committed Information Rate (PVC CIR) (Continued)

The Customer must specify which port (UNI/NNI) on the PVC the CIR will be billed against

Be is the maximum amount of additional data, measured in bits, that Company will attempt to handle, network conditions permitting. The maximum value for the Be will be the lower of the two port speeds connected by the PVC segment. For example, if Customer location A has a 56 Kbps port and Customer location B has a 45 Mbps port, the maximum allowable Be for the PVC linking these two locations is 56 Kbps.

The actual throughput of Customer traffic cannot exceed the bandwidth of the access line and the port speed. Since multiple PVCs may be defined on one physical port, it is possible for the cumulative CIRs to exceed the physical bandwidth of that port. This is referred to as over-subscription and when this occurs, there can be no guarantee that the bandwidth defined for any PVC will be available at a given time.

The following type of PVC CIR is available:

#### 1) Intrazone PVC CIR

An Intrazone PVC CIR is a logical channel path between two Customer Frame Relay ports located within the same zone. When FRSIII is used to access IP-VPN, an Intrazone PVC CIR is a logical channel path between a customer port and the IP-VPN network. If the PVC CIR creates a logical channel path between two Customer Frame Relay ports located in different zones within the same state, the Customer must also order the Interzone Transport Optional Feature. Frame Relay zones are specified in Section 5.9.8.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.2 <u>Service Components</u> (Continued)

## D. Optional Features and Functions

Optional features and functions provide Customer with additional capabilities for use with the FRS packet network. Nonrecurring charges do not apply when optional features are ordered in conjunction with the initial installation of the associated FRS UNI Port Only or UNI Port with Access Line Connection. When ordered subsequent to the initial installation of the associated FRS UNI Port Only or UNI Port with Access Line Connection, nonrecurring charges apply as set forth in Section 5.9.9 following.

# 1. Interzone Transport

Interzone Transport provides the mapping of a Frame Relay Intrazone PVC across one or more Frame Relay zone boundaries within a state. Interzone Transport is an optional feature available with Intrazone PVC CIR. Frame Relay zones are found in Section 5.9.8.

#### Frame Relay to ATM Service Interworking

Frame Relay to ATM Service Interworking provides for the conversion of Frame Relay packets to ATM cells and vice versa.

An Intrazone PVC CIR ordered with Frame Relay to ATM Service Interworking enables the creation of a logical channel path that traverses both a Frame Relay switch and an ATM switch. Frame Relay to ATM Service Interworking may also be ordered in combination with the Interzone Transport optional feature.

The Frame Relay to ATM Service Interworking optional feature permits PVC paths to be established between Frame Relay subscribers and ATM users when interworking is available. Customers must designate that the termination of the PVC will occur on an ATM Service.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

- 5.9.2 <u>Service Components</u> (Continued)
  - D. Optional Features and Functions (Continued)
    - 3. Back-up UNI

Back-up UNI service is a disaster avoidance and disaster recovery feature that consists of a Primary UNI and a Backup UNI and incorporates PVC remapping capabilities of the Frame Relay network. The Primary UNI is terminated at the primary customer host location and in normal operation services PVCs between the primary host location and various customer remote locations. A second UNI, which is designated by the customer as a Backup UNI, is installed and terminated at the customer's backup host location. During normal operations, no PVCs are mapped to the Backup UNI. The customer is required to purchase both UNIs.

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

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

A Backup UNI, which may serve as a backup to one or more Primary UNIs, can be utilized to back up only one Primary UNI at a time. A Backup UNI must be the same or greater port speed than the Primary UNI(s).

In the event of failure of a Primary UNI, digital access line or host location, the Customer must contact the Company to request that the Primary UNI be remapped to the Backup UNI in order to activate the Backup UNI service.

Upon restoral of the Primary UNI service, the Customer must contact the Company to request that the Backup UNI be remapped back to the Primary UNI.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.3 Provision of Service

Company does not undertake to originate data, but offers the use of its service components, where available, to Customers for the purpose of transporting Customer-originated data.

Customer subscribing to a Frame Relay Port or Port with Access Line will be referred to as the controller of the Frame Relay Port. A separate entity may subscribe, with written authorization from the controller, to a PVC which 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 Frame Relay Access Service. Both Customers must have a FRSIII. The controller of each Frame Relay Access Service must have written permission from the controller(s) of each of the Frame Relay Services to which a PVC is requested.

The Frame Relay Port and/or PVCs may be ordered and billed separately from an associated Frame Relay Port and PVC, and can have different Customers as controllers.

The Frame Relay Port (unbundled or bundled with an access line) and its associated PVC segment(s) may be ordered and billed separately from an associated Frame Relay Port and PVC and can have different controllers, as discussed under 5.9.2. A request by one Customer to discontinue a PVC does not result in the disconnection of the Frame Relay Port and Access Line. Only the controller of a Frame Relay Access Service may authorize a disconnect of that line.

#### 5.9.4 Responsibility of Company

In addition to the general conditions described in Section 2:

When Customer requests a path which is related to other Local Exchange Carriers (LECs), Interexchange Carriers (IXCs) or other Frame Relay networks, Company will provide assistance in establishing the associated PVC.

Network maintenance and network upgrades for FRSIII are performed between the hours of 11:00 PM and 8:00 AM. At times, during the hours of maintenance activity, it will be necessary to place Customer's service in an inactive (out of service) condition. The amount of time that this scheduled out of service condition will exist is called a maintenance window. Company will provide Customer notice prior to the maintenance window. Maintenance window activity could be scheduled for consecutive days. Company reserves the right to temporarily interrupt FRSIII at other times in emergency situations.

Original Page 5-118

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
- 5.9 Frame Relay Service III# (Continued)
  - 5.9.5 Responsibility of Customer

In addition to the general conditions described in Section 2:

- It shall be the responsibility of Customer to ensure the continuing compatibility of CPE that is used in conjunction with the FRSIII. The CPE shall be in compliance with FCC rules and regulations
- Error correction is the responsibility of Customer's terminal equipment and/or applications. If the FRSIII network experiences congestion or failures, Customer data may be discarded. In addition, frames that are received in excess of the Be, with bad addresses, or other errors, will be discarded on ingress to the network.
- Customer, upon request, shall furnish such information as may be required to permit
  Company to design and maintain the FRSIII it offers and to assure that the service
  arrangement is in compliance with the regulations contained herein. At service
  subscription, Customer will be expected to specify the DLCI, PVC CIR capacity and
  Be for each PVC ordered. If desired, Customer may request that Company assign
  DLCIs.
- Customer shall be responsible for obtaining permission for Company's agents or employees to enter the premises of Customer or its users at any reasonable hour for the purpose of installing, inspecting, repairing, or, upon termination of the service, removing the service components of Company.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-119

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

## 5.9.6 Rate Regulations

A. Termination Charges: Month-to-Month and TPPs

All UNI Port with Access Line Connections, UNI Port Only Connections and NNI Port Only Connections are subject to a minimum service period of one month. If the Customer terminates service prior to the minimum service period, the minimum service period charges apply.

## B. Nonrecurring Charges

A nonrecurring charge applies for each installation of service ordered on a month-tomonth basis. The customer will not be eligible for any refunds of the nonrecurring charge should a term plan be requested subsequent to the initial installation of service. A nonrecurring charge also applies whenever the facility associated with a rate element is moved, changed or rearranged. The charge is not applicable when Customer converts from one term plan to another and there is no physical change in the service facility.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-120

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

# 5.9.6 Rate Regulations (Continued)

C. Term Payment Plan (TPP) Regulations for Customers Who Entered into TPPs Prior to September 22, 2004

#### General

The terms and conditions specified herein are applicable to FRSIII and are in addition to other regulations as specified in this Guide.

The Frame Relay UNI Port with Access Line, the Frame Relay UNI or NNI Port Only rate elements are available under a TPP. PVCs are not offered under a TPP.

Frame Relay TPP rates will not be greater than standard month-to-month Frame Relay rates, for the same rate elements.

Three-year and five-year TPP rates will be equal to or less than the one-year TPP rates. Decreases to the one-year TPP rates will flow through to the three-year and five-year TPP rates.

Payment periods of one-year, three-year, and five-years are available to all Customers at the applicable rates set forth in 5.9.8 regardless of when they subscribe to a TPP arrangement. Rate elements must be ordered under the same TPP period. Customer must designate on the Service Request the payment period for the TPP.

Inside moves, provided in accordance with Section 4, will not incur termination liability charges. Outside moves, provided in accordance with Section 4, will allow Customer to retain the same TPP payment period. Any other move will be treated as a disconnect of the service and termination liability charges will apply.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

## 5.9.6 Rate Regulations (Continued)

- C. Term Payment Plan (TPP) Regulations for Customers Who Entered into TPPs Prior to September 22, 2004 (Continued)
  - 2. Changes in Length of TPP Period

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

- No credit toward the new payment period will be given for payments made under the original TPP arrangement;
- Non-recurring charges will not be reapplied for existing service(s);
- If the new TPP period is shorter in length than the time remaining under the existing TPP, the change to the new TPP period constitutes a discontinuance of the existing TPP service and termination liability charges apply.

# 3. Renewal Options

At the expiration of a TPP period, Company will automatically renew the service at the same TPP period unless Customer chooses to convert to a different TPP period, convert to month-to-month rates, or discontinue service.

Conversion to a different TPP period will require Customer to submit a change order Service Request. Conversion of existing TPP service to a different TPP period will be allowed without application of any non-recurring or ordering charges.

Conversion to month-to-month rates will be treated as a disconnect of service and establishment of new service. However, if no other changes are ordered, no charge will apply.

FRONTIE

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

## 5.9.6 Rate Regulations (Continued)

- C. Term Payment Plan (TPP) Regulations for Customers Who Entered into TPPs Prior to September 22, 2004 (Continued)
  - 4. Upgrade to Higher Speed Service

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

- Both the existing and the new services are provided solely by Company.
- The order to discontinue a service at an existing speed or capacity and the order for the upgraded service are received by Company at the same time.
- The new service will be provided at the same Customer location as the discontinued service.
- The fixed-period plan for the upgraded service(s) meets or exceeds the remaining length of the existing fixed-period plan.
- The total monthly rate of the new agreement is equal to or greater than the total monthly rate of the existing agreement period.

The monthly rates for the upgraded services and/or service elements will be those in effect at the time of the service upgrade. The upgraded service will be subject to all appropriate non-recurring charges.

Termination liability charges will not apply as long as the upgraded service remains connected at the same point of termination(s) or meets the move requirements set forth in Section 4.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-123

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
  - 5.9.6 Rate Regulations (Continued)
    - C. Term Payment Plan (TPP) Regulations for Customers Who Entered into TPPs Prior to September 22, 2004 (Continued)
      - 5. Termination Liability

In the event that service is disconnected in full or Customer otherwise elects to cancel the plan prior to the completion of the term, termination liability shall apply. The termination liability charge will equal 25% of the remainder of the charges that would have been paid had Customer continued service in the plan for the balance of the term.

6. Termination Without Liability

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

- Term Payment Plan (TPP) Regulations for Customers Who Enter into TPPs On or After September 22, 2004
  - 1. General

The terms and conditions specified herein are applicable to FRSIII and are in addition to other regulations as specified in this Guide.

The Frame Relay UNI Port with Access Line, the Frame Relay UNI or NNI Port Only rate elements are available under a TPP. PVCs are not offered under a TPP.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

## 5.9.6 Rate Regulations (Continued)

D. Term Payment Plan (TPP) Regulations for Customers Who Enter into TPPs On or After September 22, 2004 (Continued)

# 2. End of Term Options

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

- Renew for the same commitment period;
- Commit to a new term period of shorter or longer duration;
- Arrange for a change of service; or
- Discontinue service.

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

## 3. Termination Liability

TPPs are subject to early termination liability. In the event that service is disconnected in full or in part after the minimum period but prior to completion of the current term period, the customer shall be liable for an early termination charge, except as noted following.

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 Port Only/Port With Access Line Connections X Remainder of Term = Termination Charge

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

- 5.9.6 Rate Regulations (Continued)
  - D. Term Payment Plan (TPP) Regulations for Customers Who Enter into TPPs On or After September 22, 2004 (Continued)
    - 4. Termination Without Liability

Early termination charges will apply only to those rate elements under a term commitment period. If any rates for the service are increased by 8% or more during the term period, exclusive of any increase due to local, state or federal fees, taxes or surcharges, the customer may terminate the service without incurring an early termination charge.

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

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

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

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

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

- The value of the new term commitment is equal to or greater than the remaining value of the current term commitment;
- Both the existing and the new services are provided solely by the Company;
- c. The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.
- # Service availability limited. Refer to # footnote on Page 5-108

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

#### 5.9.7 Application of Rates and Charges

The following rate elements are applicable to FRS:

**UNI Port and Access Line Connection** 

Port Only Connection

- UNI Port Only
- Private NNI Port Only

**PVC CIR** 

**Optional Features** 

- Interzone Transport
- Frame Relay to ATM Interworking

Administrative Charge

#### A. UNI Port and Access Line Connection

A monthly recurring charge based on the speed of the port connection applies per port for each physical connection to the network supporting FRS. Clear channel capability, as necessary, is included at no additional charge. In addition, a nonrecurring charge applies to the month-to-month plan. Nonrecurring charges do not apply to UNI Port and Access Line Connections ordered under a Term Payment Plan (TPP). UNI Port and Access Line Connections are offered on a month-to-month basis or as a TPP of one year, three years or five years.

## B. Port Only Connection – UNI Port Only and NNI Port Only

A monthly recurring charge based on the speed of the port connection applies per port for each port only interface. In addition, a nonrecurring charge applies to the month-to-month plan. Nonrecurring charges do not apply to Port Only Connections ordered under a Term Payment Plan (TPP). Port Only Connections are offered on a month-to-month basis or as a TPP of one year, three years or five years.

Section 5.9.2.A.2 and 5.9.2.B preceding provide the regulations applicable to access facilities used to access UNI Port Only and NNI Port Only, respectively.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

- 5.9.7 Application of Rates and Charges (Continued)
  - C. Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)

Intrazone – A monthly recurring charge, based on CIR capacity, applies for each PVC requested by Customer.

## D. Optional Features and Functions

#### 1)Interzone Transport

A monthly rate applies, based upon CIR capacity, for each interswitch PVC ordered that traverses one or more frame relay zone boundaries within a state. The Frame Relay zones are listed in Section 5.9.8. This charge is in addition to the intrazone Frame Relay PVC rate element and its associated CIR capacity.

# 2)FRS to ATM Interworking

A monthly rate applies, based upon the CIR capacity, for each PVC interworked to an ATM Service as set forth in Section 5.9.9. This charge is in addition to intrazone Frame Relay PVC rate element and its associated CIR capacity and may be ordered in combination with the Interzone Transport optional feature.

## 3)Back-up UNI

A nonrecurring charge applies, per Backup UNI, per occurrence, when a customer requests an activation of the Backup UNI service.

There is no charge for deactivation of Backup UNI service.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-128

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.9 Frame Relay Service III# (Continued)

## 5.9.7 Application of Rates and Charges (Continued)

## E. Administrative Charge

For customers who purchase PVC-CIR, an Administrative Charge will be applied whenever a change is made to Customer's Frame Relay configuration at Customer's request. Such changes are defined as those rearrangements necessary to add, delete, or rearrange Customer's configuration, including changes to Customer's selected carrier. Although multiple changes may be caused by such actions, only one Administrative Charge will apply.

An Administrative Charge applies for customer-requested changes to the bandwidth capacity of existing circuits (e.g., 384 kbps to 1.536 Mbps, or 4 Mbps to 10 Mbps). However, if Customer upgrades between service levels (e.g., 384 Kbps to 4 Mbps) or downgrades between service levels (e.g., 10 Mbps to 1.536 Mbps), the nonrecurring service charge associated with the new service level applies. The Administrative Charge applies per occurrence, per UNI Port with Access Line Connection, UNI Port Only Connection or NNI Port Only Connection.



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-129

Effective: May 1, 2020

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

5.9.8 Zones

State Zone Office Name
(D)
(D)

Illinois Freeport Freeport Carbondale Carbondale Marion Dekalb Dekalb Bloomington Bloomington Princeton Princeton Jacksonville Jacksonville Olney Olney

Macoumb
Rantoul
Terre Haute

Cincy
Macoumb
Racoumb
Rantoul
Terre Haute

Indiana Jasper Jasper Elkhart Elkhart Portage

Fort Wayne
Seymour
Richmond
Terre Haute
Fort Wayne
Seymour
Reymour
Richmond
Terre Haute

Michigan Adrian/Richmond Adrian
Richmond

Alma/Alpena Alma
Alpena Alpena
Roscommon

Muskegon Muskegon Grand Ledge Grand Ledge

Nevada Gardnerville\* Gardnerville

<sup>\*</sup> Interzone transport optional feature not available

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

First Revised Page 5-130

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

5.9.8 Zones (Continued)

<u>State</u> <u>Zone</u> <u>Office Name</u>

North Carolina Durham\* Durham Holt

Durham Main Durham Parkwood Durham Watts

Monroe\*
Sylva\*
Marion
Sylva
Weaverville

Ohio Athens/Marion Athens

Cambridge Marion Portsmouth Medina

Medina Medina New Philadelphia

Norwalk Bowling Green

Norwalk

Sylvania McCord

Oberlin Oberlin
Oxford Oxford
Troy/Wilmington Troy
Wilmington

(D)

Effective: May 1, 2020

(D) (D)

(D) (D)

South Carolina Myrtle Beach\* Myrtle Beach

Sumter\* Sumter

Wisconsin Wausau Wausau Sun Prairie Sun Prairie

Plymouth Plymouth

\* Interzone transport optional feature not available



First Revised Page 5-131

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

# 5.9.9 Rates and Charges

# A. UNI Port and Access Line Connection, Each

Jurisdiction:	Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio,	(C)
	South Carolina and Wisconsin	(C)

	Non-Recurring Charge	Monthly Rate
56/64 Kbps*	<del></del> -	
Month-to-Month	\$ 595.00	\$ 160.00
One-Year TPP	N/A	155.00
Three-Year TPP	N/A	140.00
Five-Year TPP	N/A	130.00
128 Kbps		
Month-to-Month	595.00	290.00
One-Year TPP	N/A	280.00
Three-Year TPP	N/A	270.00
Five-Year TPP	N/A	260.00
256 Kbps		
Month-to-Month	595.00	350.00
One-Year TPP	N/A	345.00
Three-Year TPP	N/A	335.00
Five-Year TPP	N/A	330.00
384 Kbps		
Month-to-Month	695.00	365.00
One-Year TPP	N/A	355.00
Three-Year TPP	N/A	350.00
Five-Year TPP	N/A	340.00
1.536 Mbps		
Month-to-Month	695.00	530.00
One-Year TPP	N/A	510.00
Three-Year TPP	N/A	480.00
Five-Year TPP	N/A	450.00

<sup>\*</sup> Upon request and where available.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

First Revised Page 5-132

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

# 5.9.9 Rates and Charges (Continued)

# A. UNI Port and Access Line Connection, Each (Continued)

Jurisdiction: Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio,		(C)
	South Carolina and Wisconsin	(C)

	Non-Recurring <u>Charge</u>	Monthly <u>Rate</u>
4 Mbps		
Month-to-Month	\$795.00	\$2,650.00
One-Year TPP	N/A	2,540.00
Three-Year TPP	N/A	2,300.00
Five-Year TPP	N/A	2,100.00
6 Mbps		
Month-to-Month	795.00	3,000.00
One-Year TPP	N/A	2,875.00
Three-Year TPP	N/A	2,600.00
Five-Year TPP	N/A	2,400.00
10 Mbps		
Month-to-Month	795.00	3,325.00
One-Year TPP	N/A	3,180.00
Three-Year TPP	N/A	2,850.00
Five-Year TPP	N/A	2,650.00
22 Mbps		
Month-to-Month	795.00	3,500.00
One-Year TPP	N/A	3,350.00
Three-Year TPP	N/A	3,000.00
Five-Year TPP	N/A	2,800.00
44.736 Mbps		
Month-to-Month	795.00	3,750.00
One-Year TPP	N/A	3,550.00
Three-Year TPP	N/A	3,175.00
Five-Year TPP	N/A	2,950.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

# 5.9.9 Rates and Charges (Continued)

# B. UNI Port Only Connection, Each

Jurisdiction:	Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio	(C)
	South Carolina and Wisconsin	(C)

	Non-Recurring	Monthly
56/64 Kbps*	<u>Charge</u>	<u>Rate</u>
Month-to-Month	\$150.00	\$ 42.00
One-Year TPP	N/A	40.00
Three-Year TPP	N/A	35.00
Five-Year TPP	N/A	32.00
128 Kbps		
Month-to-Month	150.00	75.00
One-Year TPP	N/A	70.00
Three-Year TPP	N/A	65.00
Five-Year TPP	N/A	60.00
256 Kbps		
Month-to-Month	150.00	115.00
One-Year TPP	N/A	110.00
Three-Year TPP	N/A	105.00
Five-Year TPP	N/A	100.00
384 Kbps		
Month-to-Month	150.00	150.00
One-Year TPP	N/A	145.00
Three-Year TPP	N/A	140.00
Five-Year TPP	N/A	130.00
1.536 Mbps		
Month-to-Month	295.00	225.00
One-Year TPP	N/A	220.00
Three-Year TPP	N/A	210.00
Five-Year TPP	N/A	200.00

<sup>\*</sup> Upon request and where available.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

First Revised Page 5-134

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued) PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

# 5.9.9 Rates and Charges (Continued)

# B. UNI Port Only Connection, Each (Continued)

Jurisdiction: Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio,		(C)
	South Carolina and Wisconsin	(C)

	Non-Recurring <u>Charge</u>	Monthly <u>Rate</u>
4 Mbps		
Month-to-Month	\$395.00	\$ 790.00
One-Year TPP	N/A	730.00
Three-Year TPP	N/A	650.00
Five-Year TPP	N/A	610.00
6 Mbps		
Month-to-Month	395.00	810.00
One-Year TPP	N/A	750.00
Three-Year TPP	N/A	660.00
Five-Year TPP	N/A	620.00
10 Mbps		
Month-to-Month	395.00	840.00
One-Year TPP	N/A	770.00
Three-Year TPP	N/A	670.00
Five-Year TPP	N/A	630.00
22 Mbps		
Month-to-Month	395.00	870.00
One-Year TPP	N/A	790.00
Three-Year TPP	N/A	680.00
Five-Year TPP	N/A	640.00
44.736 Mbps		
Month-to-Month	395.00	900.00
One-Year TPP	N/A	810.00
Three-Year TPP	N/A	690.00
Five-Year TPP	N/A	650.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108



#

# Frontier Telephone Companies

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-135

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued) PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
  - 5.9.9 Rates and Charges (Continued)
    - C. Private NNI Port Only Connection, Each

Jurisdiction:	Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio,	(C)
	South Carolina and Wisconsin	(C)

	Non-Recurring	Monthly
	<u>Charge</u>	<u>Rate</u>
384 Kbps		
Month-to-Month	\$150.00	\$ 150.00
One-Year TPP	N/A	145.00
Three-Year TPP	N/A	140.00
Five-Year TPP	N/A	130.00
1.536 Mbps		
Month-to-Month	295.00	225.00
One-Year TPP	N/A	220.00
Three-Year TPP	N/A	210.00
Five-Year TPP	N/A	200.00
44.736 Mbps		
Month-to-Month	395.00	900.00
One-Year TPP	N/A	810.00
Three-Year TPP	N/A	690.00
Five-Year TPP	N/A	650.00

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
  - 5.9.9 Rates and Charges (Continued)
    - D. Permanent Virtual Circuit Committed Information Rate (PVC CIR), Each
      - 1. Intrazone, Based on CIR Requested (Continued)

Jurisdiction:	Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio	(C)
	South Carolina and Wisconsin	(C)

	Monthly
	Rate
20001 – 25000 Kbps**	\$490.00
25001 – 30000 Kbps**	570.00
30001 – 35000 Kbps**	650.00
35001 – 40000 Kbps**	730.00
40001 – 45000 Kbps**	800.00
4 Kbps	\$ 4.00
8 Kbps	5.00
16 Kbps	6.00
28 Kbps	7.00
32 Kbps	8.00
42 Kbps	11.00
48 Kbps	13.00
64 Kbps	15.00
96 Kbps	22.00
128 Kbps	27.00
192 Kbps	36.00
256 Kbps	42.00
288 Kbps	48.00
384 Kbps	54.00
512 Kbps	60.00
576 Kbps	65.00
768 Kbps	70.00
1152 Kbps	80.00
1.536 Mbps	90.00

<sup>\*\*</sup> Effective September 22, 2004, these rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

First Revised Page 5-137

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
  - 5.9.9 Rates and Charges (Continued)
    - D. Permanent Virtual Circuit Committed Information Rate (PVC CIR), Each (Continued)
      - 1. Intrazone, Based on CIR Requested (Continued)

Jurisdiction: Illinois, Indiana, Michigan, Nevada, North Carolina, Ohio (C)
South Carolina and Wisconsin (C)

	Monthly
	<u>Rate</u>
2 Mbps	95.00
3 Mbps	100.00
4 Mbps	120.00
5 Mbps	142.00
6 Mbps	164.00
7 Mbps	186.00
8 Mbps	207.00
9 Mbps	229.00
10 Mbps	\$250.00
11 Mbps	266.00
12 Mbps	282.00
13 Mbps	298.00
14 Mbps	314.00
15 Mbps	330.00
16 Mbps	346.00
17 Mbps	362.00
18 Mbps	378.00
19 Mbps	394.00
20 Mbps	410.00
21 Mbps	426.00
22 Mbps	442.00

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

# 5.9.9 Rates and Charges (Continued)

- E. Optional Features and Functions
  - 1. Interzone Transport, Based on CIR Requested (Continued)

Jurisdiction: Illinois, Indiana, Michigan, Ohio and Wisconsin (C)

	Monthly <u>Rate</u>
20001 – 25000 Kbps**	1,475.00
25001 – 30000 Kbps**	1,675.00
30001 – 35000 Kbps**	1,900.00
35001 – 40000 Kbps**	2,150.00
40001 – 45000 Kbps**	2,375.00
4 Kbps	\$ 13.00
8 Kbps	14.00
16 Kbps	15.00
28 Kbps	16.00
32 Kbps	17.00
42 Kbps	20.00
48 Kbps	25.00
64 Kbps	30.00
96 Kbps	38.00
128 Kbps	43.00
192 Kbps	59.00
256 Kbps	73.00
288 Kbps	82.00
384 Kbps	91.00
512 Kbps	110.00
576 Kbps	115.00
768 Kbps	125.00
1152 Kbps	145.00
1.536 Mbps	160.00

<sup>\*\*</sup> Effective September 22, 2004, these rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

- 5.9 Frame Relay Service III# (Continued)
  - 5.9.9 Rates and Charges (Continued)
    - E. Optional Features and Functions (Continued)
      - 1. Interzone Transport, Based on CIR Requested (Continued)

Jurisdiction: Illinois, Indiana, Michigan, Ohio and Wisconsin (C)

	Monthly <u>Rate</u>
2 Mbps	180.00
3 Mbps	195.00
4 Mbps	205.00
5 Mbps	243.00
6 Mbps	286.00
7 Mbps	329.00
8 Mbps	373.00
9 Mbps	416.00
10 Mbps	\$460.00
11 Mbps	502.00
12 Mbps	544.00
13 Mbps	586.00
14 Mbps	628.00
15 Mbps	670.00
16 Mbps	704.00
17 Mbps	738.00
18 Mbps	772.00
19 Mbps	806.00
20 Mbps	840.00
21 Mbps	869.00
22 Mbps	898.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.9 Frame Relay Service III# (Continued)

- 5.9.9 Rates and Charges (Continued)
  - E. Optional Features and Functions (Continued)
    - 2. FRS to ATM Interworking, Based on CIR Requested

Jurisdiction:	Illinois, Indiana, Michigan, North Carolina, Ohio,	(C)
	South Carolina and Wisconsin	(C)

	<u>Monthl</u>	<u>y Rate</u>
Interworking PVC CIR speeds up to 20 Mbps**	\$	0.00
20001 – 25000 Kbps**		0.00
25001 – 30000 Kbps**		0.00
30001 - 35000 Kbps**		0.00
35001 – 40000 Kbps**		0.00
40001 – 45000 Kbps**		0.00

# Nonrecurring Charge

3. Back-up UNI,

per activation \$200.00

F. Administrative Charge \$50.00

<sup>\*\*</sup> Effective September 22, 2004, these rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-108



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-141

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued) PART II (Continued)

# 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#

This service is offered in the following states: Illinois, Indiana, Michigan, Nevada, North Carolina, (C)
Ohio, South Carolina and Wisconsin. (C)

# 5.10.1 <u>Description of Service</u>

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 two interfaces: User Network Interface (UNI) and Interim Inter-switch Signaling Protocol (IISP). These interfaces are 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 an Inverse Multiplexing ATM (IMA) Port with Access Line Connection as defined in 5.10.2.B and as a Port Only Connection as defined in 5.10.2.D.

The IISP Port With Access Line Connection, which is essentially equivalent to the UNI, provides a link from an Interexchange Carrier or another Customer's network to one of Company's ATM CRS hubs. IISPs are also provisioned as a Port Only Connection as defined in 5.10.2.D.

# Except as otherwise specified for Effective Bandwidth for Incremental UNIs, effective May 9, 2007, orders for new ATM CRS are no longer permitted. The Company will continue to provide ATM CRS pursuant to this Section 5.10 on any existing ATM CRS that is in-service as of May 9, 2007, or any order for ATM CRS that is placed with the Company prior to May 9, 2007 (collectively, Existing ATM CRS), subject to the following condition:

For any Existing ATM CRS that is currently subscribed to a term plan (i.e., commitment periods of 1-, 2-, 3-, and 5-years), the Company will continue to provide the Existing ATM CRS for an additional six (6) months beyond the expiration date of the customer's current commitment period at the prevailing rates of the current term plan, or until the customer replaces the Existing ATM CRS with a comparable Company provided service, or discontinues service, whichever comes first. Subject to availability of facilities and equipment, moves and/or changes to the Existing ATM CRS are permitted during the term plan commitment period provided that such moves and/or changes do not require a new commitment period. Orders for Effective Bandwidth for Incremental UNIs, including additions and changes, are permitted during the term plan commitment period and the six (6) month extension period. No other additions, changes or moves are permitted during the six (6) month extension period.

Effective: November 1, 2018

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.1 <u>Description of Service</u> (Continued)

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

UNIs, IISPs, Port Only Connections, PVCs and SVCs are further described in 5.10.2.

ATM CRS may be connected to the following Company provided services, where such connections are technically and operationally feasible, as determined by the Company:

- digital subscriber line service
- point-to-point SONET service
- internet protocol virtual private network service
- frame relay service

## 5.10.2 Service Components

The major components of ATM CRS are:
UNI Port With Access Line Connection
UNI IMA Port With Access Line Connection
IISP interface Port With Access Line Connection
Port Only Connection
Permanent Virtual Circuit (PVC)
Switched Virtual Circuit (SVC)
Effective Bandwidth

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

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

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

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

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 1.544 Mbps (DS1), 45 Mbps (DS3), 155.52 Mbps (OC3c), or 622 Mbps (OC12c). OC3c and OC12c are provided as a concatenated signal in STS-3c and STS-12c (Synchronous Transport Signal) formats, respectively. The actual throughput into CRS is less than the line rate for the UNI provided.

The rates and charges for a UNI are differentiated by the capacity of the UNI, the location where the UNI originates (i.e., Customer-designated premises) and mileage ranges (expressed as tiers) associated with extending the UNI to the wire center designated as the ATM CRS hub.

The OC3c and OC12c UNI Port With Access Line Connections are provisioned on either Protected or Protected Diverse Synchronous Optical Network (SONET) facilities or Direct Fiber Facilities. SONET is a standards-based fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format. ATM OC3c and OC12c Protected SONET UNI Port With Access Line Connections are provisioned over SONET as a survivable service with an alternate (not diverse) facility between the central office and the Customer premises. ATM OC3c and OC12c Protected Diverse SONET UNI Port With Access Line Connections are provisioned over SONET as a survivable service with an alternate and diverse path between the ATM CRS hub and the Customer premises.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

## 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

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

Direct Fiber UNI Port With Access Line Connection is a type of OC3c or OC12c ATM UNI that is provisioned with no alternate facility between the ATM CRS hub and the Customer premises. Effective October 23, 2004 Direct Fiber UNI Port With Access Line Connections are no longer available to new customers. Existing customers may continue their service until their Extended Service Plan expires or until their service is disconnected, whichever occurs first. All of the options available under Section 5.10.12.C continue to apply.

DS3, OC3c, OC12c and other interfaces, both electrical and optical, are supported and defined to the technical specifications set forth in 5.10.3.

B. UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection

UNI IMA Port With Access Line Connection permits the provisioning of bandwidth greater than DS1 and less than DS3 by binding together multiple DS1 facilities. The inverse multiplexer at each end of the connection aggregates and deaggregates multiple parallel DS1 leased lines into a single higher speed link. IMA will be offered as Full bandwidth only. Two to six DS1 facilities will be permitted in an IMA group providing nominal aggregated bandwidth from three to nine megabits per second. IMA allows for all class of service parameters up to the combined nominal line rate of the aggregated DS1s and all PVCs and/or SVCs that will fit within the bandwidth. Ordering of DS1s within an IMA group must be done in a descending order. Disconnecting DS1s within an IMA group must be done in a descending order. Customer must purchase a minimum of two IMA DS1s.

Requests to change existing UNI Port With Access Line Connections to UNI IMA Port With Access Line Connections will be treated as a disconnect and new install. Termination liability charges, as set forth in Section 5.10.12, may apply.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

C. Interim Inter-Switch Signaling Protocol (IISP) Port With Access Line Connection

IISP Port With Access Line Connection, which is similar to the Full UNI described in 5.10.2.A preceding, allows network-to-network connectivity through the use of PVCs and/SVCs. The IISP interface specifies how a Company ATM CRS switch sends and receives data from an Interexchange Carrier's or other Customer's ATM CRS network. The IISP connection consists of a 1.544 Mbps (DS1), a 45 Mbps (DS3) 155.52 Mbps (OC3c), or a 622 Mbps (OC12c) digital facility from the Interexchange Carrier's network to the Company's ATM CRS switch and the appropriate port interface connection. The monthly rates for the IISP Port With Access Line Connection interfaces apply only to the Tier 1 mileage band (0 to 5 miles).

The IISP Port With Access Line Connection, like the UNI Port With Access Line Connection, includes Protected and Protected Diverse SONET OC3c and OC12c connections and Direct Fiber OC3c and O12c connections. ATM Protected OC3c and OC12c SONET IISP connections are provisioned as a survivable service with an alternate (not diverse) facility. ATM Protected Diverse OC3c and OC12c IISP interfaces are provisioned over SONET as a survivable service with an alternate diverse path between the local serving office and the Customer premises.

Direct Fiber is a type of OC3c and OC12c ATM IISP that is provisioned using an optical fiber interface with no alternate facility. Effective October 23, 2004, Direct Fiber IISPs are no longer available to new customers. Existing customers may continue their service until their Extended Service Plan expires or until their service is disconnected, whichever occurs first. All of the options available under Section 5.10.12(C) continue to apply.

DS1, DS3, OC3c, OC12c, both electrical and optical, are supported and defined to the technical specifications set forth in 5.10.3.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

# D. Port Only Connection

Port Only Connections can be established as User to Network Interface (UNI) arrangements or Interim Inter-switch Signaling Protocol (IISP). UNI and IISP Port Only connection provides an ATM Cell Relay Network connection based on the port connection speeds of DS1, DS3, OC3c and OC12c. The ATM port speed will be consistent with the channel speed of the access channel. The actual throughput of Customer traffic cannot exceed the bandwidth of the access channel and port speed.

UNI Port Only Connections are available as either Incremental or Full. IISP Port Only Connections are available as 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 or IISP Port Only is available on a one-year, three-year and five-year term.

Customers may access Port Only Connections via Company-provided digital access facilities or via facilities provided by another carrier. When access facilities are provided by the Company, the associated regulations, rates and charges under the appropriate Company Tariff shall apply in addition to the regulations, rates and charges associated with ATM CRS. 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.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

E. Permanent Virtual Circuit (PVC)

The PVC defines a virtual connection across a UNI or IISP between the Customer premises and Company's ATM CRS hub. Each UNI or IISP 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). When ATM CRS is used to access IP-VPN Service, a PVC is a logical channel connection connecting a Customer-designated premises with the IP-VPN network. 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 PVC.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.2 <u>Service Components</u> (Continued)

## F. 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 or IISP that is SVC signal enabled will be provided with a SVC International Code Designator (ICD) prefix that will uniquely identify the UNI or IISP. 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.

#### G. Effective Bandwidth

Effective bandwidth is the bandwidth reserved for each logical connection (PVC or SVC) that is set up across a UNI or IISP. 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 or IISP cannot exceed the total bandwidth available on the UNI or IISP. 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.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-149

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

#### 5.10.3 Technical Specifications

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

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

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

The technical specifications for IISP interfaces are delineated in ATM Forum Interim Inter-switch Signaling Protocol, af-pnni-0026.000.

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.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

#### 5.10.4 Provision of Service

## ATM CRS includes:

- A. At least one UNI Port With Access Line or Port Only, two UNI IMA Port With Access Lines, or one IISP With Access Line or Port Only which has a maximum nominal capacity for either DS1 (1.544Mbps), DS3 (45 Mbps), OC3c (155 Mbps), or OC12c (622 Mbps). The OC3c and OC12c UNIs are provisioned over Protected or Protected Diverse SONET or Direct Fiber facilities. The Protected and Protected Diverse SONET facilities provide a backup facility that automatically switches in the event of a failure on the primary facility. The Direct Fiber facilities do not have an alternate 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 DS1, DS3, OC3c, and OC12c 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)

Effective: November 1, 2018

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

## 5.10.5 <u>Tier Structure for Local Serving Offices</u>

Locations (wire centers) that provide ATM CRS have been designated as ATM hubs. ATM hub locations are set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. Tariff FCC. No. 4. Each local serving office has been placed in a Tier 1, 2 or 3, based on its location relative to the closest ATM hub.

## 5.10.6 <u>Service Functionality</u>

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

# 5.10.7 <u>Class of Service Parameters</u>

## 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 or IISP.

2. Non-conforming cells:

Discarded

3. Cell Delay Variation Tolerance (CDVT):

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

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

- 5.10.7 <u>Class of Service Parameters</u> (Continued)
  - 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 or IISP.

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):

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

Effective: November 1, 2018

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

#### 5.10.8 Special Conditions

- A. ATM CRS is available where facilities and conditions permit. For locations where the Customer requests ATM CRS and digital, SONET or Direct Fiber facilities are not available, special construction charges may apply.
- B. OC3c and OC12c Direct Fiber facilities are not available in Tier 3. Due to loss limitations of optical signals, some requests for OC3c and OC12c Direct Fiber solutions by customers located within the upper limits of Tier 2 may be out of reach and will not be served with a Direct Fiber solution.
- C. 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.

# 5.10.9 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.

# 5.10.10 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.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

#### 5.10.11 Application of Rates and Charges

Rate Elements

The following rate elements are applicable to ATM CRS:

- User Network Interfaces (UNIs) Port With Access Line Connection
- UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection
- User Network Interfaces (UNIs) Port Only Connection
- Interim Inter-Switch Signaling Protocol (IISP)Interfaces, Port With Access Line Connection
- Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port Only Connection
- Permanent Virtual Circuits (PVCs)
- Switched Virtual Circuits (SVCs)
- Effective Bandwidth for Incremental UNIs or IISPs
- Closed User Groups (CUG)
- Administrative Charge

## A. 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., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, Direct Fiber or SONET, Protected or Protected Diverse) of the access connection. UNI Port and Access is offered as a one-year, two-year#, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply.

B. UNI Inverse Multiplexing ATM (IMA) Port With Access Line Connection

A monthly rate applies on a per DS1 basis for each sequential DS1 ordered up to the desired bandwidth (i.e., 3 Mbps, 4.5 Mbps, 6 Mbps, 7.5 Mbps or 9 Mbps). IMA is offered as a one-year, two-year, three-year or five-year ESP. DS1s within an IMA group added subsequent to the initial installation of the first two DS1s will have their own term period. No nonrecurring charges apply.

C. User Network Interfaces (UNIs) Port Only Connection

A monthly rate applies on a per Port Only basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental) of the port only connection. UNI Port Only is offered as a one-year, two-year, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

# 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

## 5.10.11 <u>Application of Rates and Charges</u> (Continued)

D. Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port With Access Line Connection

A monthly rate applies on a per Port With Access Line basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c), based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, Direct Fiber or SONET) of the access connection. IISP Port and Access is only available in Tier 1 and is offered as a one-year, two-year#, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply.

E. Interim Inter-Switch Signaling Protocol (IISP) Interfaces, Port Only Connection

A monthly rate applies on a per Port Only basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c), based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental) of the port only connection. IISP Port Only is only available in Tier 1 and is offered as a one-year, two-year, three-year or five-year Extended Service Plan (ESP). No nonrecurring charges apply.

F. 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 or IISP. If multiple UNIs or IISPs are involved, a nonrecurring charge will apply to each UNI or IISP 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 or IISPs.

G. Switched Virtual Circuits (SVCs)

A nonrecurring charge applies per order for Virtual Channel Connection (VCC) or Virtual Path Connection (VPC). SVCs are ordered per UNI or IISP. If multiple UNIs or IISPs are involved, a nonrecurring charge will apply to each UNI or IISP Port on which the virtual connections will reside. The nonrecurring does not apply when SVCs are installed at the same time as the respective UNIs or IISPs.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

## 5.10.11 Application of Rates and Charges (Continued)

#### H. Effective Bandwidth for Incremental UNIs

A monthly rate applies for incremental UNIs for CBR or VBR PVC and SVC bandwidth at 5 Mbps for DS3 or OC3c and at 15 Mbps for OC12c. A monthly rate also applies for incremental UNIs for UBR PVC and SVC bandwidth for DS3, OC3c and OC12c. No nonrecurring charges apply.

The monthly rate for PVC and/or SVC UBR bandwidth will be waived when the combined VBR and CBR effective bandwidth purchased (either SVC or PVC or any combination) is equal to at least 50% of the effective bandwidth capacity of the UNI. When UBR bandwidth is made available, it is available for both PVCs and SVCs. No nonrecurring charges apply.

Incremental UNIs with UBR PVC of zero bandwidth are provided at no charge to Customer only when Asynchronous Transfer Mode Cell Relay Service is used to transport Company-provided Digital Subscriber Line (DSL) service.

# I. 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 or IISP.

# J. Administrative Charge

A nonrecurring charge applies (per order, per UNI or IISP) when a Customer initiates a change to one or more of the following: UNI or IISP bandwidth, PVCs, class of service parameters, and/or other service parameters that do not require changes in physical facilities and that can be provisioned by the Company without the dispatch of a technician to the Customer location. For each 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 or IISP.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

#### 5.10.12 Extended Service Plan

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

Term commitments of one-, two-#, three- and five-years are available to ATM CRS UNI Port With Access Line Connection, UNI Port Only, IISP Port With Access Line Connection and IISP Port Only Customers and term commitments of one-, two-, three- and five-years are available to UNI IMA Port With Access Line Connections at the applicable rates set forth in 5.10.16, regardless of when they subscribe to an ESP arrangement.

In the event ATM CRS is terminated by the Customer prior to completion of the initial term commitment period, Termination Liability charges, as set forth following, will apply.

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

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

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

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.10 Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)# (Continued)

# 5.10.12 <u>Extended Service Plan</u> (Continued)

## C. End of Term Options

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

Renew for the same commitment period, Commit to a new term period of shorter or longer duration, Arrange for a change of service, or Discontinue service.

In the event the Customer does not select one of the above options, the Customer will be converted to the shortest-term period available under tariff (i.e., 1-year, etc.) for the same service, and will be subject to the applicable term commitment, if any, unless the Customer terminates the service within sixty (60) days of the conversion date.

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

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

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

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

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

## 5.10.12 <u>Extended Service Plan</u> (Continued)

## D. (Continued)

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

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

Both the existing and the new services are provided solely by the Company, and

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

# 5.10.13 Moves

When the Customer requests a move or relocation of the UNI or IISP, the move or relocation will be treated as a termination of the existing service and the establishment of a new service.

# 5.10.14 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.

## 5.10.15 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.

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges

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

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each				
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	\$ 665.00 665.00 665.00	632.00 632.00 632.00	\$ 565.00 565.00 565.00	\$ 532.00 532.00 532.00
2.	DS3, each				
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	3,355.00 3,947.00 4,736.00	3,187.00 3,750.00 4,499.00	2,852.00 3,355.00 4,026.00	2,684.00 3,158.00 3,789.00
	Incremental Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	2,815.00 3,312.00 3,974.00	2,674.00 3,146.00 3,775.00	2,393.00 2,815.00 3,378.00	2,252.00 2,649.00 3,179.00

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

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

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
3.	OC3c, each				
	Direct Fiber *				
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles)	\$ 4,020.00 4,729.00	N/A N/A	\$ 3,417.00 4,020.00	\$ 3,216.00 3,784.00
	Incremental Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles)	2,100.00 2,471.00	N/A N/A	1,785.00 2,100.00	1,680.00 1,976.00
	SONET				
	Full, Protected Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	6,330.00 7,447.00 8,936.00	6,014.00 7,075.00 8,489.00	5,381.00 6,330.00 7,596.00	5,064.00 5,958.00 7,149.00
	Full, Protected Diverse Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	7,730.00 9,094.00 10,913.00	7,344.00 8,639.00 10,367.00	6,571.00 7,730.00 9,276.00	6,184.00 7,275.00 8,730.00
	Incremental, Protected Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	4,410.00 5,188.00 6,226.00	4,190.00 4,929.00 5,915.00	3,749.00 4,410.00 5,292.00	3,528.00 4,151.00 4,981.00
	Incremental, Protected Diverse Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	5,810.00 6,835.00 8,202.00	5,520.00 6,493.00 7,792.00	4,939.00 5,810.00 6,972.00	4,648.00 5,468.00 6,562.00

<sup>\*</sup> Effective October 23, 2004, Direct Fiber rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

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

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
4.	OC12c, each				
	Direct Fiber*				
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles)	\$ 11,245.00 13,229.00	N/A N/A	\$ 9,558.00 11,245.00	\$ 8,996.00 10,584.00
	Incremental Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles)	4,685.00 5,512.00	N/A N/A	3,982.00 4,685.00	3,748.00 4,409.00
	SONET				
	Full, Protected Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	19,560.00 23,012.00 27,614.00	18,582.00 21,861.00 26,233.00	16,626.00 19,560.00 23,472.00	15,648.00 18,409.00 22,091.00
	Full, Protected Diverse Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	21,160.00 24,894.00 29,873.00	20,102.00 23,649.00 28,379.00	17,986.00 21,160.00 25,392.00	16,928.00 19,915.00 23,898.00
	Incremental, Protected Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	13,000.00 15,294.00 18,353.00	12,350.00 14,529.00 17,435.00	11,050.00 13,000.00 15,600.00	10,400.00 12,235.00 14,682.00
	Incremental, Protected Diverse Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	14,600.00 17,176.00 20,612.00	13,870.00 16,317.00 19,581.00	12,410.00 14,600.00 17,520.00	11,680.00 13,741.00 16,489.00

<sup>\*</sup> Effective October 23, 2004, Direct Fiber rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141



# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

B. UNI Inverse Multiplexing ATM (IMA) Port with Access Line Connection

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	First DS1, each (1.536 Mbps total b	oandwidth)*			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	\$ 684.95 684.95 684.95	\$ 650.70 650.70 650.70	\$ 581.95 581.95 581.95	\$ 547.96 547.96 547.96
2.	Second DS1, each (3 Mbps total ba	andwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	650.00 650.00	617.50 617.50 617.50	565.00 565.00 565.00	532.00 532.00 532.00
3.	Third DS1, each (4.5 Mbps total ba	ındwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	625.10 625.10 625.10	593.85 593.85 593.85	531.10 531.10 531.10	500.08 500.08 500.08
4.	Fourth DS1, each (6 Mbps total ba	ndwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	625.10 625.10 625.10	593.85 593.85 593.85	531.10 531.10 531.10	500.08 500.08 500.08

<sup>\*</sup> Customer must purchase a minimum of two IMA DS1s.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

B. UNI Inverse Multiplexing ATM (IMA) Port with Access Line Connection (Continued)

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
5.	Fifth DS1, each (7.5 Mbps total ban	ndwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	625.10 625.10 625.10	593.85 593.85 593.85	531.10 531.10 531.10	500.08 500.08 500.08
6.	Sixth DS1, each (9 Mbps total band	dwidth)			
	Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)	625.10 625.10 625.10	593.85 593.85 593.85	531.10 531.10 531.10	500.08 500.08 500.08

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

C. User Network Interfaces (UNIs) Port Only Connection

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each				
	Full	\$ 347.00	\$ 330.00	\$ 295.00	\$ 278.00
2.	DS3, each				
	Full Incremental	1,224.00 588.00	1,163.00 559.00	1,040.00 500.00	979.00 471.00
3.	OC3c, each				
	Full Incremental	3,200.00 941.00	3,040.00 894.00	2,720.00 800.00	2,560.00 753.00
4.	OC12c, each				
	Full Incremental	11,247.00 3,529.00	10,685.00 3,353.00	9,560.00 3,000.00	8,998.00 2,824.00

Original Page 5-166

Frontier Telephone Companies

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

- 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)
- 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)
  - 5.10.16 Rates and Charges (Continued)
    - D. IISP, Port With Access Line Connection Tier 1 (0 5 Miles)

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each				
	Full	\$ 665.00	\$ 632.00	\$ 565.00	\$ 532.00
1.	DS1, each				
	Full	3,355.00	3,187.00	2,852.00	2,684.00
3.	OC3c, each				
	Direct Fiber*				
	Full	4,020.00	N/A	3,417.00	3,216.00
	SONET				
	Full, Protected Full, Protected Diverse	6,330.00 7,730.00	6,014.00 7,344.00	5,381.00 6,571.00	5,064.00 6,184.00
4.	OC12c, each				
	Direct Fiber*				
	Full	11,245.00	N/A	9,558.00	8,996.00
	SONET				
	Full, Protected Full, Protected Diverse	19,560.00 21,160.00	18,582.00 20,102.00	16,626.00 17,986.00	15,648.00 16,928.00

<sup>\*</sup> Effective October 23, 2004, Direct Fiber rate elements no longer apply to new customers.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

# E. IISP, Port Only Connection

		One-Year <u>Rate</u>	Two-Year <u>Rate</u>	Three-Year <u>Rate</u>	Five-Year <u>Rate</u>
1.	DS1, each				
	Full	\$ 347.00	\$ 330.00	\$ 295.00	\$ 278.00
2.	DS3, each				
	Full	1,224.00	1,163.00	1,040.00	979.00
3.	OC3c, each				
	Full	3,2000.00	3,040.00	2,720.00	2,560.00
4.	OC12c, each				
	Full	11,247.00	10,685.00	9,560.00	8,998.00

Effective: November 1, 2018

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

F.	Permanent Virtual Circuits (PVCs), per order		Nonrecurring
1.	Virtual Channel Connections (VCCs)		Charge*
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	75.00	\$ 75.00 75.00 75.00
2.	Virtual Path Connections (VPCs)		
	Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt)	75.00	\$ 75.00 75.00
	Unspecified Bit Rate (UBR)	75.00	75.00
G.	Control and Minteral Cinemits (CMCs) managed		
0.	Switched Virtual Circuits (SVCs), per order		Nonrecurring Charge*
1.	Virtual Channel Connections (VCCs)		Nonrecurring <u>Charge</u> *
	Virtual Channel Connections (VCCs)  Constant Bit Rate (CBR)  Variable Bit Rate real time (VBRrt)	75.00	
	Virtual Channel Connections (VCCs)  Constant Bit Rate (CBR)	75.00	<u>Charge</u> * \$ 75.00
	Virtual Channel Connections (VCCs)  Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt)	75.00	<u>Charge</u> * \$ 75.00 75.00
1.	Virtual Channel Connections (VCCs)  Constant Bit Rate (CBR) Variable Bit Rate real time (VBRrt) Variable Bit Rate non-real time (VBRnrt) Unspecified Bit Rate (UBR)	75.00 75.00	<u>Charge</u> * \$ 75.00 75.00

<sup>\*</sup> Applies per order and in lieu of service charges found elsewhere in this Guide. If multiple UNIs or IISPs are involved, a nonrecurring charge will apply to each UNI or IISP Port on which the virtual connections will reside. The NRC does not apply when PVCs/SVCs are installed at the same time as the respective UNIs or IISPs.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.10 <u>Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS)#</u> (Continued)

# 5.10.16 Rates and Charges (Continued)

	,		
Н.	Effective Bandwidth for Incremental UNIs	Monthly	Nonrecurring
1.	CBR or VBR PVC Bandwidth	<u>Rate</u>	<u>Charge</u>
	DS3 or OC3c – 5 Mbps OC12c – 15 Mbps	\$ 80.00 200.00	N/A N/A
2.	CBR or VBR SVC Bandwidth		
	DS3 or OC3c – 5 Mbps OC12c – 15 Mbps	80.00 200.00	N/A N/A
3.	UBR PVC and SVC Bandwidth, Bandwidth up to the UNI line rate		
	DS3 OC3c OC12c	400.00 1,200.00 4,000.00	N/A N/A N/A
I.	Closed User Groups*		
1.	Each CUG	N/A	\$75.00
2.	Each subsequent CUG member added to a CUG	N/A	75.00
J.	Administrative Charge**	N/A	75.00

<sup>\*</sup> Applies per order, per UNI, and in lieu of service charges found elsewhere in this Guide. The NRC does not apply when a CUG is installed at the same time as the respective UNI or IISP.

<sup>\*\*</sup> Applies per order, per UNI or IISP, and in lieu of service charges found elsewhere in this Guide. The NRC does not apply for those items ordered on the same service order with the installation of a UNI or IISP.

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-141

Effective: May 1, 2020

# SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.11 Ethernet LAN Service#

This service is offered in the following states: Illinois and North Carolina.

(C)

## A. <u>General</u>

1. Ethernet LAN Service (ELS) is a high speed data service which provides Ethernet transport within a LATA (Ethernet ELS) or allows interconnection of Ethernet ELS as described herein between LATAs (National ELS). Ethernet ELS is provided over a shared network and utilizes FDDI, ATM, Gigabit Ethernet or a combination, to transport the Customers' data between customer locations within a LATA. National ELS interconnects Ethernet ELS with an Interexchange Carrier or other Service Provider, allowing the Customers' data to be transported to a different Ethernet ELS in a different LATA by use of Ethernet Virtual Circuits across the Company's Multi-Protocol Label Switching network ("National ELS Network").

Ethernet ELS is available in two service types: Ethernet Multipoint Service (EMS) and Ethernet Relay Service (ERS). EMS is a connection-less Ethernet ELS Service that allows connectivity among multiple Customer designated locations within a LATA. ERS is a connection-oriented Ethernet ELS Service that allows point-to-point connectivity between Customer designated locations within a LATA.

- # Effective March 30, 2007, orders for new ELS are no longer permitted. The Company will continue to provide ELS pursuant to this Section 5.11 on any existing Ethernet ELS or National ELS that is in-service as of March 30, 2007, or any order for Ethernet ELS or National ELS that is placed with the Company prior to March 29, 2007 (collectively, Existing Ethernet ELS or Existing National ELS, as applicable), subject to the following conditions:
  - a. The Company will continue to provide Existing Ethernet ELS to a term plan customer for an additional six (6) months beyond the expiration date of the customer's current commitment period, or until the customer replaces the Existing Ethernet ELS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.
  - b. The Company will continue to provide Existing Ethernet ELS purchased on a month-to-month basis until September 30, 2007, or until the customer replaces the Existing Ethernet ELS with a comparable Company provided service, or discontinues service, whichever comes first. Moves, additions, and/or changes are not permitted.
  - c. The Company will continue to provide Existing National ELS to a term plan customer until the customer replaces the Existing National ELS with a comparable Company provided service, discontinues service, or until the service is withdrawn from the Tariff, whichever comes first. Moves, additions, and/or changes are not permitted.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

# A. General (Continued)

## 1. (Continued)

EMS and ERS are available in two interfaces: User to Network Interface (UNI) or Network to Network Interface (NNI). Ethernet Virtual Circuits (Ethernet ELS EVCs), which are available with the ERS service type only, are required to create point-to-point virtual connections.

- (a) The UNI Port With Access Line Connection consists of a dedicated fiber pair that provides a link from the Customer's premises to one of the Company's ELS nodes/switches and the appropriate port interface connection. If the serving wire center of the Customer is not a Company ELS node/switch, Interoffice Mileage applies from the serving wire center to the ELS node/switch.
- (b) The NNI Port Only Connection provides a port interface connection from an Interexchange carrier's network or other service provider's point of presence to one of the Company's ELS switches.
- (c) The Ethernet ELS EVC provides an Ethernet point-to-point virtual connection between customer locations.

UNIs, NNIs and Ethernet ELS EVCs are further described in Section 5.11 B.1 following.

National ELS consists of two service components: National ELS Ethernet Virtual Circuit (National ELS EVC) and Company provided Internet Protocol Interface (IP Interface). National ELS EVCs and IP Interface are further described in 5.11 B.2 following.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-172

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

## A. General (Continued)

Ethernet ELS creates a network with the ability to function as a shared public network.
 Customer must select either Ethernet Multipoint Service (EMS) or Ethernet Relay Service (ERS) as the service type for each domain.

With the EMS service type, Ethernet ELS 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. When Ethernet ELS is used to access IP-VPN Service, CUGs or virtual LANs are used between a customer designated premises and the IP-VPN network. When Ethernet ELS is used to access the National ELS Network, CUGs or virtual LANs are between a customer designated premises and the National ELS Network. Subscribers in a CUG can only access their own data. An EMS domain is comprised of the number of access lines designated by Customer to be included in a CUG or virtual LAN. EMS provides multipoint-to-multipoint connectivity among all of customer's access lines within a given domain.

With the ERS service type, Ethernet ELS EVCs provide point-to-point virtual connectivity between two Customer access lines, between Customer's access line and an NNI, between Customer's access line and an IP-VPN i-VC or between Customer's access line and a National ELS EVC. An ERS domain is comprised of any number of Ethernet ELS EVCs (one Ethernet ELS EVC = one virtual LAN) designated by Customer to be included in the ERS domain.

Customer may have more than one domain within a LATA, but connections between EMS domains or between domains of different service types are not permitted.

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

# PART II (Continued)

# 5.11 <u>Ethernet LAN Service#</u> (Continued)

## B. Service Components

#### 1. Ethernet ELS

The major components of Ethernet ELS are:

- a. UNI Port With Access Line Connections are available in the following configurations:
  - i. EMS Standard UNI Port With Access Line Connection
  - ii. ERS Standard UNI Port With Access Line Connection
  - iii. EMS Real Time (RT) UNI Port With Access Line Connection
  - iv. ERS Premier UNI Port With Access Line Connection
- b. NNI Port Only Connection(s) are available in the following configuration:
  - i. 1000 Mbps (1 Gbps) via single port interface
- c. Ethernet Virtual Circuit (Ethernet ELS EVC)
- d. Interoffice Mileage
- e. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes
- f. Optional Features
- a. UNI Port With Access Line Connection
  - i. EMS Standard UNI Port With Access Line Connection
    - EMS Standard UNI Port With Access Line Connections, which are available at 10, 100 and 1000 Mbps, provide connectivity between the Customer premises and the serving wire center. EMS Standard UNI Port With Access Line Connections are only available where facilities and conditions permit. Connectivity can be established only between/among UNIs of the same service type.
  - ii. ERS Standard UNI Port With Access Line Connection
    - ERS Standard UNI Port With Access Line Connections, which are available at 10, 100 and 1000 Mbps, provide connectivity between the Customer premises and the serving wire center. ERS Standard UNI Port With Access Line Connections are only available where facilities and conditions permit. Connectivity can be established only between/among UNI/NNIs of the same service type. ERS Standard UNI Port With Access Line Connection requires purchase of Standard ERS EVCs, as described in Section 5.11.B.1(c) following, in order to establish point-to-point connectivity among the Customer's access lines.
- # Service availability limited. Refer to # footnote on Page 5-170

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - a. UNI Port With Access Line Connection (Continued)
      - iii. EMS Real Time (RT) UNI Port With Access Line Connection

EMS - RT UNI Port With Access Line Connections, which are available at 100 Mbps or 1,000 Mbps, provide connectivity between the Customer premises and the serving wire center. This enhanced service class configures a fixed portion of the UNI to be configured for Real Time Traffic, where each 100 Mbps UNI has a Committed Information Rate (CIR) equal to 2 Mbps and an Excess Information Rate (EIR) equal to 0 and where each 1,000 Mbps UNI has a CIR equal to 10 Mbps and an EIR equal to 0. The remainder of the UNI can be used for CIR = 0 with EIR = 0 traffic. Connectivity can be established between/among UNIs of the EMS service types (RT and Standard) but not between EMS and ERS service types.

iv. ERS - Premier UNI Port With Access Line Connection

ERS - Premier UNI Port With Access Line Connections, which are available at 100 Mbps or 1,000 Mbps, provide connectivity between the Customer premises and the serving wire center. ERS – Premier UNI Port With Access Line Connection requires some combination of ERS-B, ERS-PD, and/or ERS-RT EVC service classes, as described in Section 5.11(B)(1)(c) following, in order to establish point-to-point connectivity among the Customer's access lines. Connectivity can be established between/among UNIs of the ERS Premier service types (ERS-B, ERS-PD, ERS-RT) but not between ERS – Premier and ERS – Standard service types.

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

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

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



# INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8

Original Page 5-175

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - a. UNI Port With Access Line Connection (Continued)
      - iv. ERS Premier UNI Port With Access Line Connection (Continued)

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

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

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

ERS - Premier UNI Port With Access Line Connection are offered at the following CLLIs.

<u>CLLI</u> BLTNILXD
DRHMNCXM DRHMNCXE
BVTNORXB HLBOORXB SMRWORXA TGRDORXA
BOTHWAXB EVRTWAXA RDMDWAXA STTOWAJM

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - b. Network to Network Interface (NNI) Port Only Connection

NNI Port Only Connections are available at the speed of 1000 Mbps (1 Gbps) with a single port interface. The NNI Port Only is used for connecting two networks together for bidirectional messaging and is available on a private basis only. NNI Port Only Connections are available as either EMS or ERS. Connectivity can be established only between/among UNI/NNIs of the same service type.

NNI Port Only Connections can only be accessed via:

- i. LAN Extension Service, subject to the regulations, rates and charges specified in Frontier Telephone Companies Tariff FCC. No. 5, Section 5. The channel speed of the LAN Extension Service channel must be sufficient to accommodate the NNI Port speed. The commitment period for the NNI Port Only Connection must be the same as the commitment period of the corresponding LAN Extension Service.
- ii. Expanded Interconnection Services (EIS), subject to the regulations, rates and charges for cross-connection to a physical or virtual EIS arrangement specified in Frontier Telephone Companies Tariff FCC. No. 5, Section 17. Customer must provide connecting facility assignment (CFA) to which NNI will be cross connected in such an arrangement. The connection between an EIS and ELS must occur within the same Company wire center, except when LAN Extension Service, or Ethernet Private Line Service, dedicated fiber transport with network interface device or ethernet private line service are used to provide the transport between an Expanded Interconnection arrangement and a ELS NNI Port Only Connection that are not in the same wire center..
- iii. Ethernet Private Line Service, subject to the regulations, rates and charges specified in Frontier Telephone Companies Tariff FCC. No. 5, Section 20. The channel speed of the Ethernet Private Line service channel must be sufficient to accommodate the NNI Port speed. The commitment period for the NNI Port Only Connection must be the same as the commitment period of the corresponding Ethernet Private Line Service.
- # Service availability limited. Refer to # footnote on Page 5-170

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - b. Network to Network Interface (NNI) Port Only Connection (Continued)
      - iv. Dedicated fiber transport with network interface device, where such access is technically and operationally feasible, as determined by the Company.
      - v. Ethernet private line service, where such access is technically and operationally feasible, as determined by the Company.
    - c. Ethernet ELS Ethernet Virtual Circuit (Ethernet ELS EVC)

Ethernet ELS EVCs, which are available in various bandwidths, provide point-to-point virtual Ethernet connectivity between two UNIs, between a UNI and an NNI, between a UNI and a National ELS EVC, or between a UNI and an IP-VPN i-VC. Ethernet ELS EVCs are only available with ERS.

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

10 Mbps = 2 EVCs

100 Mbps = No more than 10 EVCs

1000 Mbps = No more than 75 EVCs

Ethernet ELS EVCs are available with the following classes of service:

<u>ERS Standard</u>: This service class is available with ERS – Standard UNI Port With Access Line Connections at 10, 100 and 1000 Mbps. ERS Standard is designed for Customer applications that do not require a Committed Information Rate (CIR) or low delay, where CIR equals 0 and Excess Information Rate (EIR) equals the number of Mbps of the selected ERS Standard EVC service class.

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. Service Components (Continued)
  - 1. Ethernet ELS (Continued)
    - c. Ethernet ELS Ethernet Virtual Circuit (Ethernet ELS EVC) (Continued)

ERS Basic (ERS-B): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 1000 Mbps. ERS-B is designed for Customer applications that do not require a CIR or low delay, where CIR equals 0 and EIR equals the number of Mbps of the selected ERS-B EVC service class.

ERS Priority Data (ERS-PD): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 500 Mbps. ERS-PD is designed for Customer applications which do not require low delay, but require a CIR, where the CIR equals the number of Mbps of the selected ERS-PD EVC service class and the EIR equals the number of Mbps of the selected ERS-PD EVC service class.

ERS-Real Time (ERS-RT): This service class is available with ERS – Premier UNI Port With Access Line Connections at various bandwidths between 1 Mbps and 100 Mbps. ERS-RT is designed for Customer applications which require a CIR and low delay for some portion of their traffic, where the CIR equals the number of Mbps of the selected ERS-RT EVC service class and the EIR equals 0.

Each ERS EVC can include up to three service classes (ERS-B, ERS-PD and ERS-RT) as described preceding, subject to the threshold requirements specified in Section 5.11(B)(1)(a)(iv) preceding. 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. Company provides no performance guarantees or Credit Allowances due to performance levels defined in these Classes of Service.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - d. Interoffice Mileage

If Customer's normal serving wire center is not equipped with ELS equipment, Customer may obtain service from a ELS equipped wire center by ordering interoffice mileage. Interoffice mileage charges will apply in addition to ELS UNI/NNI charges. The dB loss cannot exceed the maximum allowable range, as specified in Section 5.11 D. following.

The Company has no obligation to notify Customer when ELS equipment is deployed in Customer's normal serving wire center or in a wire center that is closer to the Customer's normal serving wire center. Should Customer decide to initiate a move of its ELS facilities when service becomes available in its normal serving wire center or a closer serving wire center, the regulations set forth in Section 5.11 D. following will apply.

e. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes

A domain change is the reassignment of Customer's computer data to different virtual LAN, at Customer's request. The change is accomplished via software changes in Company's database.

An Ethernet ELS EVC change is any change in the bandwidth of an Ethernet ELS EVC.

LAN extension equipment changes, other than for maintenance or repair, involve the physical replacement of Company-provided network interface on an existing ELS access line, at the same location on Customer's premises.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-180

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

- B. <u>Service Components</u> (Continued)
  - 1. Ethernet ELS (Continued)
    - f. Optional Features
      - (i) Customer Service Management (CSM)

CSM is an optional feature that provides Customers with web-based reports. The reports give the Customer the ability to extract "read-only" network traffic information, enabling them to monitor and manage their network performance. Network traffic information is not available on any EVC mapped to an NNI. CSM is provided per Customer domain.

CSM is available where conditions and facilities permit. CSM is not available with National ELS.

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

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-181

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

### B. <u>Service Components</u> (Continued)

#### 2. National ELS

National ELS consists of two service components: National ELS Ethernet Virtual Circuits (National ELS EVCs) and Company provided IP Interface.

a. National ELS Ethernet Virtual Circuits (National ELS EVCs)

The National ELS EVC provides a point-to-point virtual connection from Ethernet ELS into the National ELS Network where it physically connects to an IP Interface on Company's network. National ELS EVCs are available at 4, 6, 8, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500 and 600 Mbps and only where facilities and conditions permit.

Customer must utilize suitable Ethernet ELS access facilities to connect to the National ELS EVC on the National ELS Network.

Customer's selection for speed and/or service performance issues on the Ethernet ELS access facilities may impact the performance of National ELS. The associated regulations, rates and charges for Ethernet ELS apply for such access facilities.

### b. IP Interface

An IP Interface is an Internet Protocol service consisting of a port on a LATA Core Router that provides an interface to the Company's IP network. The IP Interface is available subject to technical specifications and operational feasibility, as determined by the Company.

Original Page 5-182

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- B. <u>Service Components</u> (Continued)
  - 2. National ELS (Continued)

National ELS EVCs are offered in the following LATAs. To determine what points are within a specific LATA, refer to the Local Exchange Routing Guide (LERG).

<u>State</u>	<u>LATA</u>
IN	334
NC	426
OR	672
WA	674

Subject to general regulations contained in Section 2 preceding, National ELS will be provided seven days a week, 24 hours a day, with the following exception specified in 5.11 D.7 following.

## C. <u>Technical Specifications</u>

The technical specifications for Ethernet ELS are delineated in IEEE802.3-2002 and IEEE802.1Q.

### D. Terms and Conditions

- A typical Ethernet ELS network will be limited to wire centers in a specific geographic location. Customers gain access to the shared Ethernet ELS network via ELS equipment deployed in Customer's serving wire center.
- 2. Ethernet ELS provided with a UNI is available to Customers whose serving wire center is equipped with ELS equipment and whose location is within the maximum allowable range of the serving central office. The maximum allowable range is determined by the dB loss rate so the actual distance between the ELS equipped serving wire center and the Customer's location may vary due to the facility used in each serving arrangement. The maximum dB loss cannot exceed 20dB @1310nm for 10 Mbps service, 26dB @1310nm for 100 Mbps service, 9.5db @1330nm for 1000 Mbps or 22dB @1550nm for 1000 Mbps.
- # Service availability limited. Refer to # footnote on Page 5-170

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

- D. Terms and Conditions (Continued)
  - 3. Ethernet ELS includes:

	When Provided With	
Network Interface Device (NID) at Customer's Premises to terminate the fiber pair.	UNI Interface X	NNI Interface
Dedicated fiber pair from Customer's premises to the serving wire center.	X	
Network management including fault monitoring and diagnostics, performance and network configuration applications, and manual monitoring when necessary.	X	Х
A dedicated port on the node/switch.	X	X
One or more Ethernet ELS EVCs (ERS service type only)	X	Х
ELS interoffice mileage, where applicable*.	X	
Optional features, if applicable.	Χ	Χ

<sup>\*</sup> ELS interoffice mileage will not apply for Ethernet ELS provided with an NNI Interface. However, when LAN Extension Service, Ethernet Private Line, dedicated fiber transport with network interface device or Ethernet private line service are used to access NNI as specified in 5.11(B)(1)(b) preceding, channel mileage under those services will apply.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-184

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

- D. Terms and Conditions (Continued)
  - 4. Availability of Service

Subject to general regulations contained in Section 2 preceding, Ethernet ELS will be provided seven days a week, 24 hours a day, from wire centers equipped to provide this service with the exception specified in (D)(7) following. ELS is available where facilities and conditions permit. Special construction charges may apply.

#### 5. Ethernet ELS Connections

- (a) The network interface is the LAN interface on the ELS equipment at Customer's premises. Customer is responsible for any inside wire required in connecting the LAN to the ELS equipment.
- (b) Customer is responsible for installation, operation, and maintenance of any Customer-provided equipment.
- (c) The Company has the service responsibility up to and including the network interface.

### 6. Limitations

Customer's location must be within the maximum allowable range of the Ethernet ELS equipped wire center.



#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-185

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

#### D. Terms and Conditions (Continued)

### 7. Maintenance Window

To meet Ethernet ELS 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 p.m. and 8 a.m. Network upgrades are planned to provide Customer with reasonable and timely notification in order to minimize any impact on Customer's service.

To meet National ELS Customers' requirements, Company performs occasional network upgrades as needed to provide the service and enhancements to the service. Generally, these upgrades will be performed between the hours of 2:00 AM and 6:00 AM on Tuesdays and Thursdays. Company cannot guarantee availability of EVCs during such periods that maintenance and network upgrades are being performed.

However, Company reserves the right to perform maintenance at any time, at its discretion, when it believes such unscheduled maintenance is necessary to maintain network performance. Company will make reasonable effort to provide notice to those Customers likely to be affected by such maintenance work.

### 8. Transmission Mode for Ethernet ELS

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

Effective: November 1, 2018

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

#### E. Application of Rates

The following rate elements are applicable to ELS:

#### Ethernet ELS

- UNI Port with Access Line Connection
  - EMS Standard UNI Port With Access Line Connection
  - ERS Standard UNI Port With Access Line Connection
  - EMS Real Time UNI Port With Access Line Connection
  - ERS Premier UNI Port With Access Line Connection
- NNI Port Only Connection
- Ethernet ELS Ethernet Virtual Circuit (Ethernet ELS EVC)
  - ERS EVC Setup
  - ERS EVC Standard
  - ERS EVC Bandwidth (Basic, Priority Data and Real Time)
- Interoffice Mileage
- Domain/Ethernet ELS EVC/LAN Extension Equipment Changes
- Optional Features
  - Customer Service Management (CSM)

#### National ELS

- National ELS Ethernet Virtual Circuits (EVC)
- National ELS Administrative Change Charge
- National ELS Expedite Charge
- 1. UNI Port with Access Line Connection

A monthly rate applies on a per-line basis and is differentiated by the speed of the access connection (i.e., 10, 100 or 1000 Mbps). The UNI Port with Access Line Connection 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 Port with Access Line Connection provided on a month-to-month basis.

## 2. NNI Port Only Connection

A monthly rate applies on a per port connection basis. The NNI Port Only Connection is offered on a 3 Year or 5 Year Term Plan. A nonrecurring charge applies to the installation of the NNI Port Only Connection.

Effective: November 1, 2018

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

### E. Application of Rates (Continued)

## 3. Ethernet Virtual Circuit (Ethernet ELS EVC)

For Customers who order the ERS EVC - Standard, a monthly rate and a nonrecurring charge apply on a per ERS EVC - Standard (ERS EVC-Std) basis and vary by the bandwidth selected. The EVC bandwidth must be equal to the lower speed bandwidth of the two end points it is connecting.

For Customers who order the ERS-B, ERS-PD, or ERS-RT EVC, a monthly rate applies, per Class of Service, on a per EVC basis, and varies by the bandwidth selected. A nonrecurring Setup Charge applies per ERS EVC. A Customer may have more than one Class of Service on the EVC, but only one EVC Setup Charge applies.

### 4. Interoffice Mileage

The Interoffice Mileage charge is applied on a per line, per mile basis. The Per Mile charge is multiplied by the distance between the Customer's serving central office and the nearest ELS equipped central office. The mileage measurement is calculated as specified by NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC. No. 4. Interoffice Mileage monthly charges apply in addition to the applicable rates and charges for the ELS UNI.

## 5. Domain/Ethernet ELS EVC/LAN Extension Equipment Changes

Customer requests for changes in domains, changes in bandwidth of Ethernet ELS EVCs, or replacement of LAN extension equipment will be charged a nonrecurring charge per location, per change.

### 6. Optional Features

#### (a) Customer Service Management (CSM)

A monthly rate and a nonrecurring charge apply for each CSM arrangement. The Customer will be charged on a per domain or virtual LAN basis. The nonrecurring charge applies in addition to all other applicable service charges.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

### E. Application of Rates (Continued)

### 7. National ELS Ethernet Virtual Circuit (EVC)

A monthly rate applies on a per National ELS EVC basis and is differentiated by the speed of the connection. The National ELS EVC is offered under 1 Year, 2 Year or 3 Year Term Plans. A nonrecurring charge applies to the installation of a National ELS EVC provided under a 1 Year Term Plan.

#### Reserved

### 9. National ELS Administrative Change Charge

A nonrecurring National ELS Administrative Change Charge applies in the following circumstances:

- When a Customer requests a later provisioning due date
- When a Customer cancels an order which is already in progress
- When a Customer upgrades service in accordance with 5.11.E.12 following.
- When a National ELS EVC is remapped at a Customer's request, except when such remapping is required as a result of the disconnection of an IP Interface.

One National ELS Administrative Change Charge shall apply per order.

### 10. National ELS Expedite Charge

Company offers an expedite capability on National ELS EVCs but does not guarantee that every request will be accepted or expedited per the requested time. When requested by Customer, the National ELS Expedite Charge will apply, on a per National ELS EVC basis, when Company meets an interval shorter than the standard interval.

#### 11. Minimum Period

The minimum period for Ethernet ELS under the month-to-month plan is nine months. The minimum period for National ELS is twelve months. The regulations applicable to ELS provided under a Term Payment Plan are specified in 5.11.E.13 following.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

### E. Application of Rates (Continued)

### 12. Moves, Changes and Upgrades

When Customer requests a move or relocation of the Ethernet ELS 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 UNI speed (10 Mbps to 100 Mbps) or change in service type (EMS to ERS), at an existing address, the upgrade in UNI speed or 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.

Early termination charges may be waived under the conditions specified in 5.11.E.14(c) following.

#### 13. Term Payment Plan

The ELS UNI Port With Access Line Connection, NNI Port Only Connection and EVC are offered under the Term Payment Plans specified in (F) following.

### (a) End of Term Options

- (1) Prior to the end of the term commitment period, the Customer may select one of the following options to be effective at the end of the term:
  - Renew for the same commitment period;
  - Commit to a new term period of shorter or longer duration;
  - Arrange for a change of service; or
  - Discontinue service.
- (2) In the event Customer does not select one of the above options, Customer will be converted to the shortest-term period available under tariff (i.e., month-tomonth, etc.) for the same service and will be subject to the applicable term commitment, if any, unless the Customer terminates the service within sixty (60) days of the conversion date.
- # Service availability limited. Refer to # footnote on Page 5-170

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability
    - (a) In the event the service is terminated by Customer prior to completion of the current term commitment period, Customer shall be liable for an early termination charge, except as noted in (b), (c) or (d) following.

### **Termination liability for Ethernet ELS:**

Termination liability will be 25% of the monthly recurring charge(s) (MRC) for Ethernet ELS for the remainder of the term. For customers who entered into term plans prior to December 19, 2003, when there is a term plan less than the actual time the term plan has been in effect, the termination liability charge will be the lesser of:

- (1) the difference between the discounted monthly rates resulting from the highest term plan commitment period that could be satisfied prior to the disconnection and the discounted monthly rates resulting from the term plan multiplied by the actual number of months the service has been in effect; or
- (2) 25% of the monthly recurring charge(s) (MRC) for the remainder of the term. For example:

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

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-191

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

#### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability
    - (a) (Continued)

#### **Termination Liability for National ELS:**

Termination liability applies to National ELS EVC service components when National ELS is disconnected after the minimum period but prior to the expiration of the term plan.

Termination liability regulations applicable to National ELS EVC service components are set forth as follows:

For disconnects prior to the expiration of a one-year term plan, termination liability is equal to the minimum period obligation, or 100% of the applicable MRCs for the unexpired portion of the plan.

For disconnects within the first twelve months of a two- or three- year term plan, the termination liability charge is equal to 100% of the applicable MRCs for the unexpired portion of the first twelve months and 50% of the applicable MRCs for the remainder of the plan.

For disconnects after the first twelve months of a two- or three-year term plan, the termination liability charge is equal to 50% of the applicable MRCs for the remainder of the plan.

(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, exclusive of any increase due to local, state, or federal fees, taxes, or surcharges, the Customer may terminate the service without incurring an early termination charge.

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 5-192

### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability
    - (c) Early termination charges for Ethernet ELS will not be assessed under the following circumstances:
      - 1. The customer moves its 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. The Customer attempts to move the existing service to a new location within the Company's service area, but the service is unavailable;
      - The Customer converts to a new term commitment plan for the same service before the current term commitment expires, and the dollar value of the new term commitment is equal to or greater than the remaining dollar value of the current term commitment; or
      - 4. The 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 dollar value of the new term commitment is equal to or greater than the remaining dollar value of the current term commitment,
        - Both the existing and new services are provided solely by the Company; and
        - (c) The order to discontinue the existing service and the order for the new or upgraded service are received by the Company at the same time.

#### SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

### PART II (Continued)

#### 5.11 Ethernet LAN Service# (Continued)

- E. Application of Rates (Continued)
  - 14. Termination Liability
    - (d) Early termination charges for National ELS will not be assessed under the following circumstances:
      - Customer subscribes to a new term commitment for the same service before the
        term plan expires, and the aggregate amount of all MRCs included under the new
        term plan is equal to or greater than the aggregate amount of the MRCs
        remaining under the expiring term plan. A National ELS Administrative Change
        Charge will apply if there is no nonrecurring charge associated with the new term
        plan.
      - Customer upgrades National ELS EVC service components under a term plan to a higher speed provided that each of the following conditions are met. A National ELS Administrative Change Charge will apply if there is no nonrecurring charge associated with the new term plan.
        - The aggregate amount of all MRCs included under the term plan for the upgraded service components is equal to or greater than the aggregate amount of the MRCs remaining for the existing service components;
        - Both the existing and the upgraded service components are provided solely by Company; and
        - The order to discontinue the existing National ELS EVC service components and the order for the upgraded service components are received by Company at the same time on the same order.
        - 3. In the event Company initiates a rate increase, exclusive of any increase due to local, state or federal fees, taxes or surcharges, and the total discounted monthly rates increase by 8% or more, Customer may cancel its term plan for the affected service without termination liability. The customer must exercise its option to cancel the term plan for the affected service within 30 days of the date of the effective rate increase. Company will notify Customer in writing before any rate increase is filed in the tariff, and such notification will apprise Customer of its options.
- # Service availability limited. Refer to # footnote on Page 5-170



Effective: May 1, 2020

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

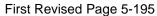
(F) Rates and Charges

Jurisdiction: Illinois, and North Carolina.	(C)
---	-----

1.		or ERS – Standard UNI Port Access Line Connection, ine	Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
	(a)	Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps	\$1,300.00 1,300.00 1,300.00	\$1,200.00 2,400.00 4,000.00
	(b)	Three Year Plan 10 Mbps 100 Mbps 1000 Mbps	N/A N/A N/A	1,000.00 2,000.00 3,500.00
	(c)	Five Year Plan 10 Mbps 100 Mbps 1000 Mbps	N/A N/A N/A	900.00 1,800.00 3,200.00
2.	_	S - Real Time UNI Port Access Line Connection, ine		
	(a)	Month to Month Plan 100 Mbps 1000 Mbps	1,300.00 1,300.00	2,500.00 4,500.00
	(b)	Three Year Plan 100 Mbps 1000 Mbps	N/A N/A	2,100.00 4,000.00
	(c)	Five Year Plan 100 Mbps 1000 Mbps	N/A N/A	1,900.00 3,700.00
_				

#

#



## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

<u>Jurisdiction</u>: Illinois and North Carolina.

(C)

			Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
3.	_	- Premier UNI Port With Access Line nection, per line		
	(a)	Month to Month Plan 100 Mbps 1000 Mbps	\$1,300.00 1,300.00	\$1,200.00 2,400.00
	(b)	Three Year Plan 100 Mbps 1000 Mbps	N/A N/A	1,000.00 2,000.00
	(c)	Five Year Plan 100 Mbps 1000 Mbps	N/A N/A	900.00 1,800.00
4.	NNI I (a)	Port Only Connection, per port Three Year Plan		
	(b)	1000 Mbps Five Year Plan	N/A	3,700.00
	(c)	1000 Mbps NNI Port Only Installation	N/A	3,500.00
	(0)	per port	1,300.00	N/A
5.	Ethe	rnet ELS EVC		
	(a)	ERS EVC Standard (ERS-Std), Per EV 10 Mbps 100 Mbps 1000 Mbps	/C 200.00 200.00 200.00	50.00 100.00 200.00

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

<u>Jurisdiction</u>: Illinois and North Carolina. (C)

			Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
5.	Ethe	ernet ELS EVC (Continued)		
	(b)	ERS EVC Bandwidth, per Class of Service, per EVC		
		Basic (ERS-B) Class of Service		
		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

N/A

# Service availability limited. Refer to # footnote on Page 5-170

90 Mbps

1,150.00

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-197

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

Jurisdiction: Illinois and North Carolina.

(C)

Nonrecurring	Monthly
Charge	Rate

- 5. Ethernet ELS EVC (Continued)
  - (b) ERS EVC Bandwidth, per Class of Service, per EVC (Continued)

Basic (ERS-B) Class of Service (Continued)

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

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

Jurisdiction: Illinois and North Carolina.

(C)

Effective: May 1, 2020

Nonrecurring	Monthly
<u>Charge</u>	<u>Rate</u>

- 5. Ethernet ELS EVC (Continued)
  - (b) ERS EVC Bandwidth, per Class of Service, per EVC (Continued)

## Priority Data (ERS-PD) Class of Service

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

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-170



Effective: May 1, 2020

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

	Juris	sdiction: Illinois and North Carolina.		(C)
			Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
5.	Ethe	ernet ELS EVC (Continued)		
	(b)	ERS EVC Bandwidth, per Class of Service, per EVC (Continued)		
		Real Time (ERS-RT) Class of Service		
		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
	(c)	ERS EVC Bandwidth, Setup Charge for ERS Premier UNI Port With Access Line Connection or NNI Port		
		Only Connection, per EVC	\$200.00	N/A



### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 5-200

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

Jurisdiction: Illinois and North Carolina.

(C)

		Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
6.	Interoffice Mileage, per line Per Mile	N/A	100.00
7.	Domain/Ethernet ELS EVC/LAN Extension Equipment Changes	400.00	N/A
8.	Customer Service Management, per Customer, Per Virtual LAN/Domain	350.00	150.00

First Revised Page 5-201

(C)

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

### 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

Jurisdiction: Illinois and North Carolina.

Nonrecurring Monthly Charge Rate 9. National ELS Ethernet Virtual Circuit (National ELS EVC), per EVC (a) One Year Plan 4 Mbps \$200.00 \$ 100.00 6 Mbps 200.00 145.00 8 Mbps 200.00 180.00 10 Mbps 200.00 210.00 20 Mbps 200.00 400.00 30 Mbps 590.00 200.00 40 Mbps 200.00 780.00 50 Mbps 200.00 970.00 60 Mbps 1,160.00 200.00 70 Mbps 200.00 1,330.00 80 Mbps 200.00 1,500.00 90 Mbps 200.00 1,660.00 100 Mbps 200.00 1,700.00 200 Mbps 200.00 3,300.00 300 Mbps 200.00 4,900.00 400 Mbps 200.00 6.400.00 500 Mbps 200.00 7,900.00

200.00

600 Mbps

9,300.00

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-170

First Revised Page 5-202

(C)

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

<u>Jurisdiction</u>: Illinois and North Carolina.

9.	National ELS Ethernet Virtual Circuit (National ELS EVC), per EVC (Continued)		Nonrecurring <u>Charge</u>	Monthly <u>Rate</u>
	(b)	Two Year Plan 4 Mbps 6 Mbps 8 Mbps 10 Mbps 20 Mbps 30 Mbps 40 Mbps 50 Mbps 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 200 Mbps 100 Mbps 100 Mbps 200 Mbps 300 Mbps 400 Mbps 500 Mbps	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	\$ 100.00 145.00 180.00 210.00 390.00 570.00 750.00 920.00 1,100.00 1,250.00 1,410.00 1,575.00 1,600.00 3,200.00 4,700.00 6,300.00 7,800.00 9,000.00
		•		•

<sup>#</sup> Service availability limited. Refer to # footnote on Page 5-170

Effective: May 1, 2020

## SECTION 5 - DESCRIPTION OF DATA SERVICES AND RATES (Continued)

## PART II (Continued)

## 5.11 <u>Ethernet LAN Service#</u> (Continued)

(F) Rates and Charges (Continued)

<u>Jurisdiction</u>: Illinois and North Carolina. (C)

		Nonrecurring	Monthly
_		<u>Charge</u>	<u>Rate</u>
9.	National ELS Ethernet Virtual		
	Circuit (National ELS EVC),		
	per EVC (Continued)		
	(c) Three Year Plan		
	4 Mbps	N/A	\$ 90.00
	6 Mbps	N/A	125.00
	8 Mbps	N/A	145.00
	10 Mbps	N/A	165.00
	20 Mbps	N/A	330.00
	30 Mbps	N/A	495.00
	40 Mbps	N/A	640.00
	50 Mbps	N/A	800.00
	60 Mbps	N/A	950.00
	70 Mbps	N/A	1,095.00
	80 Mbps	N/A	1,235.00
	90 Mbps	N/A	1,380.00
	100 Mbps	N/A	1,400.00
	200 Mbps	N/A	2,700.00
	300 Mbps	N/A	4,000.00
	400 Mbps	N/A	5,300.00
	500 Mbps	N/A	6,600.00
	600 Mbps	N/A	7,800.00
10.	National ELS Administrative Change Charge		
	per request	\$200.00	N/A
11.	National ELS Expedite Charge,		
	per EVC	\$250.00	N/A



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 6-1

#### **SECTION 6 - PROMOTIONS**

### 6.1 Promotions

General

Company may provide special promotional offerings to its Customers. These offerings may be limited to certain dates, times and locations. All promotions are subject to availability of service at the requested location and are not valid with any other promotions, unless otherwise specified. The following specific rates, terms and conditions are applicable to each promotional offering.



## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 7-1

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES

The operating territory of Frontier Telephone Companies is comprised of the operating territories of Frontier Communications of the Southwest Inc., Frontier North Inc., Frontier Communications Northwest Inc., Frontier Communications of the Carolinas Inc., Frontier West Virginia Inc., and Frontier Midstates Inc. as defined following.

## SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

## 7.1 Operating Territory of Frontier Communications of the Southwest Inc.

The operating territory of Frontier Communications of the Southwest Inc. is comprised of the following locations, defined by the names of rate centers, for Arizona, California and Nevada.

### 7.1.1 Operating Territory of Arizona

**Bouse** 

Ehrenberg

Palo Verde

Parker

Parker Dam

Poston

## 7.1.2 Operating Territory of California

**Alpine** 

Big River

Blvthe

Coleville

Havasu Landing

Palo Verde

### 7.1.3 Operating Territory of Nevada

Glenbrook

Gardnerville

Jacks Valley

Smith Valley

Stateline

Yerington



Original Page 7-3

## SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

### 7.8 Operating Territory of Frontier North Inc.

The operating territory of Frontier North Inc. is comprised of the following locations, defined by the names of rate centers, for Illinois, Indiana, Michigan, Ohio, Pennsylvania and Wisconsin.

### 7.2.1 Operating Territory of Illinois

Albers **Brookport** Albion Buckley Alexander Buda Allendale Bureau Alvin **Burnt Prairie** Amboy Bushnell Anna Byron Annapolis Cabery Calhoun Apple Canyon Apple River Camp Grove Argenta Camp Point Arrowsmith Campus Ashkum Capron Ashton Carbondale Astoria Carlock Atlanta Carmi Auburn **Carriers Mills** Ava Carrollton Barry Carterville **Baylis** Castleton Beaverville **Cedar Point** Bellflower Cedarville Bellmont Cerro Gordo Belvidere Chapin **Bement** Chatham Benson Chatsworth **Benton** Chauncey Bethany Chebanse **Birds** Chenoa **Bismarck** Cherry Valley Bloomington Chester Bluffs Chillicothe Bradford Chrisman Bridgeport Christopher Brimfield Cisco **Broadlands** Claremont Brocton Clay City

Clifton Clinton Cobden Colfax Compton Coulterville **Creal Springs** Creston Cropsey Cuba Cypress Dakota **Dalton City** Davis De Land De Soto Dekalb Divernon Dongola Donovan Dover Downs Du Quoin **Dundas** Dunlap Durand Earlville Edelstein Eldorado **Eldred** Elizabeth Elkhart Elkville **Elliot** Ellis Grove Ellsworth

Clayton

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

### 7.2 Operating Territory of Frontier North Inc. (Continued)

### 7.2.1 Operating Territory of Illinois (Continued)

Elmira Henning Elmwood Henry Elwin Herrin **Emington** Heyworth Enfield Highland Hillview Eureka Evansville Hinckley Homer **Ewing Fairbury** Hopedale Fairfield Hudson Farmer City Hull Fayetteville Hurst Flora Hutsonville Forreston Illiopolis Franklin Jacksonville Franklin Grove Johnston City Freeport Joppa Galva Karnak Garden Prairie Kenney Genoa Kewanee German Valley Kirkland Girard La Moille Golconda La Place La Rose Goreville **Grand Ridge** Ladd Granville Lawrenceville Grayville Le Roy Greenfield Leland Griggsville Lena Groveland Lexington Hammond Lincoln Hanover Literberry Hardinville Loami Harrisburg Loda Hebron Long Point Hecker Lostant Hennepin Low Point

Mackinaw Macomb Macon Magnolia Mahomet Malta Manchester Manlius Mansfield Maple Park Marion Marissa Maroa Marshall Martinton Mascoutah Massbach Maunie McConnell McLean McLeansboro Melvin Mendota Meredosia Metcalf Metropolis Middletown Millstadt Milton Mineral Minier Minonk Monroe Center Monticello Morton Mossville

**Mount Carmel** 

Effective: November 1, 2018

FRONTIER

#### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 7-5

## SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

## 7.2 Operating Territory of Frontier North Inc. (Continued)

#### 7.2.1 Operating Territory of Illinois (Continued)

**Mount Morris** Perry Shawneetown Mount Sterling Pinckneyville Sheffield Piper City Mount Zion Sheldon Pittsfield Murphysboro Sheridan Murrayville Pleasant Hill Sherman Neponset Pleasant Plains Shirland New Baden Siblev Pontiac Sidell New Berlin Poplar Grove New Canton **Prairie City** Sidney New Haven Princeton Somonauk **New Milford** Princeville Sparland Newman Sparta Putnam Newton Raleigh Spring Grove Niantic Reddick Spring Valley St. Francisville Noble Redmon Norris City Richmond Stanford Odell Ridgway Steeleville Ohio Roanoke Steward Okawville Roberts Stillman Valley Olney Robinson Stockton Omaha Rochelle Stonefort Orangeville Rock Cut Strawn Oreana Rockport Streator Oregon Rockton Sublette Palestine Roodhouse Sullivan Palmyra Summerfield Roscoe Paris Rose Hill Sumner Parkersburg Rossville Sunnyland Royalton Sycamore Patterson Paulton Rutland Thawville Paw Paw Sailor Springs Thompsonville Pawnee Sandwich Tilden Paxton Saybrook Tiskilwa Pearl Scales Mound Toluca **Pearl City** Sesser Toulon Pecatonica Seward **Tremont** Percy Shabbona Tuscola

## **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 7-6

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.2 Operating Territory of Frontier North Inc. (Continued)

## 7.2.1 Operating Territory of Illinois (Continued)

Ullin	Washington	Westport
Varna	Waterman	Westview
Vermilion	Waverly	White Hall
Vermont	Wayanet	Williamsville
Versailles	Wayne City	Willow Hill
Vienna	Waynesville	Winchester
Villa Grove	Weldon	Winnebago
Villa Ridge	Wendelin	Winslow
Virden	Wenona	Wonder Lake
Walnut	West Brooklyn	Woodson
Warren	West Frankfort	Wyanet
Warrensburg	West Salem	Wyoming
Washburn	West Union	Zeigler

Original Page 7-7

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.2 Operating Territory of Frontier North Inc. (Continued)

#### 7.2.2 Operating Territory of Indiana

Pleasant Lake Akron Greencastle Albion Greens Fork Poe Angola Hagerstown Pokagon Arlington Hamilton Portage Atwood Hanna Prairie Creek **Bippus** Harlan Redkey Richmond Blountsville Hobart Ridgeville Bourbon Huntertown Riley Brazil Kimmell Roanoke **Bristol** Kouts Brookville La Crosse Rolling Prairie La Porte Royal Center Burket Butler Lafayette Rushville Lake Station Saint Joe Cambridge City Carthage Shirley Laurel Center Point Leo Sidney Centerville Silver Lake Lewis Spiceland Chestertown Liberty Churubusco Logansport Springport Cicero Lucerne Sullivan Clay City Lynn Terre Haute Claypool Macy Tippecanoe Connersville Union Mills Mays Mechanicsburg Cory Valparaiso Dunkirk Wabash Mentone Dunlap Middlebury Wakarusa Elkhart Millwood Walton Farmland Milroy Wanatah Fort Wayne Modoc Waterloo Fountain City Monroeville Wawaka Frankton Mooreland West College Corner Fremont Morristown Westfield **Fulton** Morton Westville Wheeler Galveston New Haven Garrett North Manchester Winchester Glenwood Orland Windfall Goshen Pendleton Woodburn Graysville Perkinsville Wyatt

Hesperia

Hillman

Holton

Higgins Lake

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.2 Operating Territory of Frontier North Inc. (Continued)

# 7.2.3 Operating Territory of Michigan

Adrian Covert Alden Davison Allegan De Witt Alma Decatur Almont Deckerville Alpena Dowagiac Ashlev Dryden Atlanta Dundee Durand Avoca Bancroft Eastport Bangor Edmore Edwardsburg Barryton Bath Elkton Bellaire Ellsworth Elsie Blissfield Breckenridge **Emmett** Britton Erie Bronson Fairview Brown City Fennville Burr Oak Fenwick Capac Fowler-Pewamo Carson City Fruitport Caseville Gaines Cass City Ganges Cassopolis Gaylord Gobles Central Lake Centreville Goodells Clam River **Grand Junction** Clifford Grand Ledge Clinton **Grass Lake** Coldwater Grayling Coldwater Lake Hamilton Colon Harbor Beach

Harrisville

Hartford

Hemlock

Hart

Houghton Lake **Howard City Hubbard Lake** Hubbardston Hudson Ida Imlay City Ithaca Jeddo Kingston Lachine Laingsburg Lakeview Lawton Lewiston Lincoln Linden Long Lake Lost Peninsula Ludington Maple Rapids Marcellus Mattawan Maybee McBride Memphis Mendon Merrill Metamora Middleton Milford Minden City Mio

Columbiaville

Constantine

Coopersville

Conklin

**FRONTIER** 

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.2 Operating Territory of Frontier North Inc. (Continued)

# 7.2.3 Operating Territory of Michigan (Continued)

Mount Pleasant	Remus	Sturgis
Muir	Richmond	Swartz Creek
Muskegon	Riverdale	Tecumseh
North Branch	Rogers City	Temperance
Norton Sylvania	Roscommon	Three Rivers
Onaway	Saint Johns	Tipton
Ortonville	Saint Louis	Torch River Bridge
Ossineke	Saline	Twin Lake
Otisville	Saugatuck	Union
Ovid	Schoolcraft	Union City
Owosso	Shelby	Vandalia
Palo	Shepherd	Vanderbilt
Paw Paw	Sheridan	Vestaburg
Pentwater	Sidney	Weidman
Pompeii	Sister Lakes	White Pigeon
Posen	Six Lakes	Whitehall
Quincy	Smiths Creek	Williamston
Rankin	South Haven	Woodland
Ravenna	Stanton	Yale
Reading	Stanwood	



# INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8

Galion

Original Page 7-10

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

Cambridge

# 7.2 Operating Territory of Frontier North Inc. (Continued)

#### 7.2.4 Operating Territory of Ohio

Adena

Carey Albany Garrettsville Amanda Carrollton Genoa Amesville Catawba Georgetown Amsterdam Celina Gibsonburg Antwerp Chatham Grafton Arlington (Hancock Co.) **Grand Rapids** Chauncev Ashland Chesapeake Gratis Ashley Cheshire Green Camp Ashville Circleville Greenfield Athens Clarksville Greenwich Attica Clyde Guysville Baltic Coldwater Hamersville Baltimore Congress Hanoverton Convoy Harlem Springs **Barlow** 

Beaver Cooperdale Harpster
Bellevue Crestline Haskins-Tontogany

Bergholz Creston
Berlin Curtice-Oregon
Berlin Heights Decatur
Bettsville Delaware
Beverly Dellroy
Blanchester Dexter City
Bloomville Dillonvale-Mt. Pleasant

Bolivar East Rochester Bowerston Edgerton **Bowling Green** Edon Bremen **Elmore Brewster** Englewood Brilliant Evansport Brookville Farmersville Brunswick Favette Bryan Felicity Burbank Flushing Byesville Forest Cadiz Fort Recovery Caldwell Freeport

Higginsport Homerville Homeworth Huron Idaho Jackson Jenera Jewett Kellevs Island Kilbourne Knoxville Lakeville Larue Laura Laurelville Leesburg

Letart Falls

Havesville

Hicksville

Helena



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 7-11

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

#### 7.2 Operating Territory of Frontier North Inc. (Continued)

#### 7.2.4 Operating Territory of Ohio (Continued)

New Lebanon Portsmouth Lewisburg Liberty **New London** Proctorville Lodi New Marshfield **Prospect** Logan New Philadelphia Put-in-Bay Loudonville New Vienna Racine Lowell **New Washington** Radnor Lower Salem Nev Rathbone North Baltimore Lynchburg Rawson North Eaton Redhaw Malvern Manchester North Georgetown Republic Marblehead North Star Richmond Norwalk Richwood Maria Stein Marion Oak Harbor Russellville Martinsville Oak Hill Rutland Oberlin McArthur Sabina McComb Ohio City Saint Marys Ostrander Sardinia Mechanicsburg Mechanicstown Otway Savannah Medina Oxford Scio Mendon **Paris** Sciotoville Milan Payne Scott Millersport Peebles Seaman Mineral City Seville Pemberville Minerva Perrysville (Ashland Co.) Shade

**Sharon Center** Minster Phillipsburg Monroeville Piketon Sinking Spring Montpelier Pioneer Smithfield Montrose Plain City South Webster Morning Sun Pleasant Spencer Morral Pleasantville Mowrystown Plumwood Mt. Blanchard **Plymouth** Mt. Orab Polk Nevada **Pomeroy** New Bremen Port Clinton New Burlington Port William New Concord Portland

FRONTIER

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.2 Operating Territory of Frontier North Inc. (Continued)

# 7.2.4 Operating Territory of Ohio (Continued)

Tiltonsville

Tipp City

Trotwood

Troy

Valley City

Van Buren

Wadsworth

Wakeman

Waldo

Warsaw

Watertown

Waverly

Waynes-Bradner

Wellington

Wellston

West Alexandria

West Milton

West Portsmouth

West Salem

West Union

West Unity

Westfield

Weston

Wharton

Wilkesville

Willard

Williamsport

Willshire

Wilmington

Winona

Woodstock

Yorkshire

Original Page 7-13

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

### 7.2 Operating Territory of Frontier North Inc. (Continued)

#### 7.2.5 Operating Territory of Wisconsin

Adams Ithaca Allenton Jacksonport Johnsburg Antigo Arena Kewaskum Athens Kiel Baileys Harbor Lac Du Flambeau Belaium Lake Mills Belleville Land O' Lakes Birnamwood Lebanon Bloom City Lime Ridge Briggsville Lodi Brillion Loganville Bristol Lomira **Brodhead** Lone Rock Brooklyn Loval Lyndon Station Cambridge Campbellsport Mapleton Cascade Marathon Cedar Grove Marshall Chilton Marshfield Clinton Mattoon Clyman Mauston Cobb McFarland Colby Merrill Cottage Grove Merrimac Darien Mineral Point Deerfield Minocqua Dodgeville Mishicot Eagle River Monroe Center

**Phelps** Pickerel Plain **Plymouth** Portage Random Lake Reedsburg Reedsville Richland Center Ridgeway Saint Cloud Salem Sauk City Sayner Silver Lake Sister Bay Slinger Spencer Spring Green Stratford Sun Prairie Theresa Three Lakes Tomahawk Trevor Twin Lakes Two Rivers Walworth Washington Island

Effective: November 1, 2018

Pardeeville

Eden Montello Edgar Mount Calvary Waterloo Edgerton Neosho Waubeka Egg Harbor New Holstein Wausau Westfield Elkhart Lake Oakfield Greenbush Oostburg White Lake Hatley Oregon Whitelaw Hilbert Orfordville Wisconsin Dells Hollandale Owen Witwen

Hustisford



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 7-14

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

7.3 RESERVED

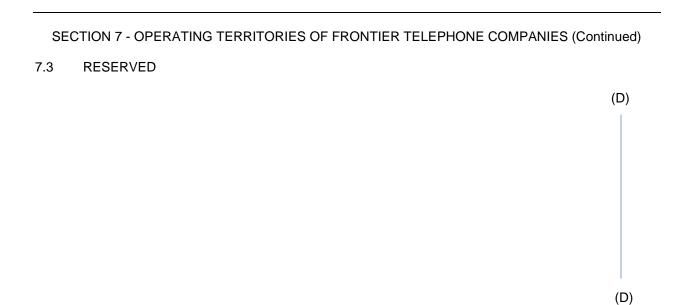
(D)

(D)



# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 7-15





# **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

First Revised Page 7-16

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.3 RESERVED

(D)

(D)

Original Page 7-17

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

### 7.4 Operating Territory of Frontier Communications of the Carolinas Inc.

The operating territory of Frontier Communications of the Carolinas Inc. is comprised of the following locations, defined by the names of rate centers, for Illinois, North Carolina, and South Carolina.

### 7.4.1 Operating Territory of Illinois

Armstrong Gifford Potomac Beason Goodfield Rankin Bondville Greenup Rantoul Casey Hartsburg Royal Cheneyville Hoopeston Sadorus Cissna Park Ivesdale Secor Collison Kansas Seymour Congerville Stockland Ludlow Danforth Milford Thomasboro Deer Creek Toledo Neoga East Lynn Ogden Tolono Emden Penfield Wellington Fisher-Dewey Pesotum Westfield Flatville Philo Woodland Foosland

### 7.4.2 Operating Territory of North Carolina

Altan Creedmoor Monroe
Andrews Durham Murphy
Bryson City Goose Creek Robbinsville

Cherokee

### 7.4.3 Operating Territory of South Carolina

Abbeville Johnsonville Olar Andrews Kingstree Pamplico Pawleys Island Bishopville Lake City Calhoun Falls Lamar Shaw AFB Heights Conway Laurens Summerton Ehrhardt Manning Sumter Fairfax-Brunson McCormick Walterboro Georgetown Myrtle Beach Winnsboro Hemingway North Myrtle Beach Woodruff Hollywood Olanta Yemassee

Original Page 7-18

### SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

#### 7.5 Operating Territory of Frontier West Virginia Inc.

The operating territory of Frontier West Virginia Inc. is comprised of the following locations, defined by the names of rate centers.

# 7.5.1 Operating Territory of West Virginia

Brushton

Buckhannon

Alderson Farmington Alloy Fayetteville Ansted Flat Top Apple Grove Follansbee Beckley Fort Gay Beech Bottom Franklin Belington Gassaway Berkeley Springs Gauley Bridge Bethany Gilbert Bradshaw Glen Daniel Glenville Brandywine Bridgeport Gormania

Burnsville Griffithsville Park
Chapmanville Hedgesville Park
Charleston Zone I Helen Park
Charleston Zone II Hinton

Mason

Greenville

Grafton

Charleston Zone II Hinton Charleston Zone III Huntington Zone I Charleston Zone IV Huntington Zone II Huntington Zone IV Charleston Zone V Hurricane Charleston Zone VI Charleston Zone VII laeger Cheat Lake Inwood Chester Jane Lew Clarksburg Kermit Clendenin Keyser Craigsville Kingwood Delbarton Leon **Dutch Ridge** Lewisburg East Bank Logan Elizabeth Lumberport Elk Garden Madison **Elkins** Man Fairmont Mannington Fairview Martinsburg

Oceana Paden City Parkersburg Zone I Parkersburg Zone II Parkersburg Zone III Pennsboro Peterstown Philippi **Piedmont** Pineville Point Pleasant Prichard Rainelle Ravenswood Richwood Ridgeley Ripley Rivesville **Rock Cave** Rowlesburg Salem Scott Depot Seth Shinnston Sistersville

Effective: November 1, 2018

Matewan

Milton

Meadow Bridge

Middlebourne

Montgomery

Morgantown

Mount Hope

New Cumberland

New Martinsville

Mullens

Newburg

Oak Hill

**Falling Waters** 

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.5 Operating Territory of Frontier West Virginia Inc. (Continued)

# 7.5.1 Operating Territory of West Virginia (Continued)

Sophia

Spencer

Summersville

Sutton

Terra Alta

Tunnelton

Union

Union Ridge

Valley Mills

Van

Walton

Weirton

Wellsburg

West Milford

West Union

Weston

Wharton

Wheeling Zone I

Wheeling Zone II

Wheeling Zone III

Wheeling Zone V

White Sulphur Spgs

Whitesville

Widen

Williamson

Williamstown

Winfield

FRONTIEF

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.6 Operating Territory of Frontier Midstates Inc.

The operating territory of Frontier Midstates Inc. is comprised of the following locations, defined by the names of rate centers, for Indiana and Michigan.

# 7.6.1 Operating Territory of Indiana

Austin Freetown North Vernon Batesville Fritchton Oakland City Bicknell Georgetown Oaktown (Carlisle) Birdseve Greensburg Orleans Brownstown Hanover Ossiann Haysville Butlerville Owensville Campbellsburg Hazleton Palmyra Central Henryville Paoli Clearspring Huntingburg Patoka Corydon Idaville Petersburg Crandall Jasper Princeton Crane Ramsey Laconia Crothersville Lanesville Reddington Cutler Reservoir Leavenworth Cynthiana Lexington Saint Anthony Decker Loogootee Salem Delphi Lynnville Scipio **Dubois** Mackey Scottsburg Elberfeld Madison-North Madison Seymour Elizabeth Shelburn Marengo Shoals English Markle Fairbanks Medora Spurgeon Uniondale Farmersburg Merom Ferdinand Milan Versailles Fort Branch Milltown Westport Wheatland Francisco Mitchell Fredericksburg Monroe City Worthington

New Middletown

Freelandville

Zanesville

### **INTERSTATE SERVICE GUIDE AND PRICELIST NO. 8**

Original Page 7-21

# SECTION 7 - OPERATING TERRITORIES OF FRONTIER TELEPHONE COMPANIES (Continued)

# 7.6 Operating Territory of Frontier Midstates Inc. (Continued)

# 7.6.2 Operating Territory of Michigan

Addison

Alger

Baroda

Bridgman

Burlington

Fitchburg

Glenn

Gregory

Homer

Lacota

Lambertville

Lawrence

Lupton

Morenci

Munith

Onondaga

Parma

Prescott

Pullman

**Rives Junction** 

Rose City

Sawyer

Sterling

Stockbridge

Tekonsha

Webberville

FRONTIEF

#### SECTION 8 - SPECIALIZED SERVICE OR ARRANGEMENTS

#### 8.1 Specialized Service or Arrangements

- (A) Specialized Service or Arrangements may be provided by the Company, at the request of a Customer, on an individual case basis if such service or arrangements meet the following criteria.
  - (1) The requested service or arrangements are not offered under other sections of this Guide.
  - (2) The facilities utilized to provide the requested service or arrangements are of a type normally used by Company in furnishing its other services.
  - (3) The requested service or arrangements are provided within a LATA.
  - (4) The requested service or arrangements are compatible with other Company services, facilities and its engineering and maintenance practices.
  - (5) This offering is subject to the availability of the necessary Company personnel and capital resources.
- (B) Specialized Service or Arrangements are provided with a Negotiated Interval.
- (C) Cancellation charges for Specialized Service or Arrangements will be developed on an individual case basis.

#### (D) Move Charges

- (1) When service without a maximum termination liability charge associated with it is moved to a different building, the nonrecurring charge applies; when moved to a new location in the same building, a charge of one-half of the nonrecurring charge applies.
- (2) When service with a maximum termination liability charge associated with it is moved and is reinstalled at a new location, Customer may elect:
  - (a) to pay the unexpired portion of the maximum termination liability charge for the service, if any, with the application of a nonrecurring charge and the establishment of a new maximum termination liability charge for such service at the new location; or
  - (b) to continue service subject to the unexpired portion of the maximum termination liability charge, if any, and pay the estimated costs of moving such service, provided that the Customer requests these charges be quoted prior to ordering the service move. Charges for moving such service will be based on estimated costs attributable to the move.
- (3) Move charge include the estimated costs of removal, restoration of services or facilities necessitated by the move, transportation, storage, reinstallation, engineering, labor, supervision, materials, administration, and any other specific items of cost directly attributable to the move.