Original Title Page

# ADVANCED DATA SERVICES TARIFF

# Containing

Regulations and Rates applicable to the furnishing of Advanced Data Services for the state of West Virginia

Ву

Frontier West Virginia Inc.

The names Verizon West Virginia Inc. and Bell Atlantic - West Virginia, Inc. have been changed to Frontier West Virginia Inc. All references throughout this Tariff to Verizon West Virginia Inc. and Bell Atlantic - West Virginia, Inc., "the telephone company" or "the company" shall be read as Frontier West Virginia Inc.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 09-0871-T-PC Dated May 13, 2010.

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\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay/ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0416-T-T Dated May 3, 2022.

Section 1 1st Revised Page 1 Cancels Original Page 1

## APPLICATION OF TARIFF

#### A. GENERAL

This Tariff applies to local advanced data telecommunications services furnished by Verizon West Virginia Inc. The regulations and rates contained herein are in addition to the applicable regulations and rates specified in other tariffs of the Telephone Company.

# B. EXPLANATION OF TERMS

ACCESS LINE - A local channel for voice, data, or video communications, which connects Customer location to a location of Company or its underlying carrier or service provider.

ACCOUNT - Customer who has agreed, orally or in writing, to honor the terms of service established by Company. An Account may have more than one service or number and/or numbers billed to the same Customer address. An Account may include multiple locations for the same Customer.

COMMISSION - West Virginia Public Service Commission.

COMPANY - Verizon West Virginia Inc., unless otherwise clearly indicated by the context.

CUSTOMER - Any person, firm, partnership, corporation or other entity who subscribes to or uses service under the terms and conditions of this tariff. Customer is responsible for the payment of charges for service offered by 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 - A single physical location where Customer's circuits terminate.

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

DS0 - Describes transmission bandwidth capable of supporting digital bit rates of up to 64 kilobits per second (Kbps).

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

GROOMING - Allows the connection of up to 24 DS0 channels, or one or more Fractional DS1 channels to a single DS1 channel. Grooming also allows the connection of up to 28 DS1 channels to a single DS3 channel.

HUB - Company designated serving wire center, which is equipped to provide private line service.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. Dated .

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## APPLICATION OF TARIFF

#### B. EXPLANATION OF TERMS (Cont'd)

INTEROFFICE MILEAGE - The distance between Customer's serving central office (N) and the TLS equipped central office. This interoffice distance is measured in airline miles, based upon latitude and longitude of each central office. (N)

LATA - Local access and transport area. A geographic area established by the US District Court for the State of **West Virginia** in Civil Action No. 82-0192, as modified by the FCC.

LOGICAL CHANNEL - A communications channel that allows transmission of sequenced data packets through one network. One logical channel comes standard with one Frame Relay Subscriber Network Access Line.

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

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

NETWORK ADDRESS - The numeric characters representing the origination or destination point (i.e., the Subscriber Network Access Line) for each dedicated circuit accessing the Frame Relay network. The Network Address is numbered in number format. One Network Address comes standard with one Subscriber Network Access Line.

NETWORK MAP - The complete configuration of Customer's Frame Relay Subscriber Network Access Lines and permanent virtual circuits, as defined by the interconnectivity of network addresses and logical channels.

PERMANENT VIRTUAL CIRCUITS (PVC) - Are the electronic equivalent of a private line between two points.

PORT - A DS1 digital switch termination that interfaces directly to a 1.5 Mbps DTF and is capable of handling channels configured as 23B + D or 24B.

PREMISES - The physical space designated by Customer for the termination of Company's service.

SUBSCRIBER NETWORK ACCESS LINE - A dedicated digital line, utilizing the Frame Relay User to Network Interface (UNI) standards, that provides a connection from Customer's premise to COMPANY hub or serving wire center.

TERMINAL EQUIPMENT - Telecommunications devices, apparatus and associated wiring on the premises of Customer.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. \_\_\_\_\_ Dated \_\_\_\_\_.

(N)

#### GENERAL REGULATIONS

## A. REGULATIONS

## 1. 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. Inspection, Testing and Adjustments
  - a. Company may, upon reasonable 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. 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.
  - b. 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.
  - c. Company shall not be liable to Customer for any damages for service interruption pursuant to this Tariff.

(N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case Numbers 00-1236-T-PC and 00-0995-T-PC Dated December 7, 2001.

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(N)

#### GENERAL REGULATIONS

A. REGULATIONS (Cont'd)

- 3. Interruption of Service
  - a. 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 Tariff 201.
  - b. 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.
  - c. 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.
  - d. 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.
- 4. 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. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case Numbers 00-1236-T-PC and 00-0995-T-PC Dated December 7, 2001.

Frontier West Virginia Inc.

Section 3 2nd Revised Page 1 Cancels 1st Revised Page 1 -13

## DESCRIPTION OF DATA SERVICES AND RATES

Effective December 31, 2007, Switched Multi-Megabit Data Service formerly contained (C) in Section 3, pages 1 - 13 of this Tariff, is hereby cancelled and withdrawn and no longer available. (C)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case Numbers 07-2278-T-T Dated 12-6-07.

Section 3 6th Revised Page 14 Cancels 5th Revised Page 14

#### DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 1. General

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

2. Regulations

FRS will allow Customers who have requirements for high-speed, interpremises connectivity to interconnect their multiple locations, within a LATA, via a UNI Port with Access Line Connection from Customer's premises to Telephone Company hub or serving wire center.

a. Explanation of Terms

The UNI is a standard interface used to connect the end user to the Frame Relay Service network. It receives the data frame from the Customer's Local Area Network (LAN) or other Customer Provided Equipment (CPE) devices and verifies that the Data Link Connection Identifier (DLCI) is valid before relaying the frame to the destination end point. The DLCI is a Frame Relay term defining a 10-bit field of the address field and identifies data links and their service parameters. UNI Port with Access Line Connection - Dedicated digital line, utilizing the Frame Relay User to Network Interface (UNI) standards, that provides a connection from Customer's premises to Telephone Company hub or serving wire center. The effective data rate of this digital line is 56 Kbps and 64 Kbps for narrowband access, and 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, 768 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, 22Mbps and 44.736 Mbps for wideband access.

UNIS and NNIS are also provisioned as a Port Only Connection. UNI Port Only Connection provides an Frame Relay Network connection based on the port connection speeds of 56 Kbps, 64Kbps, 384 Kbps, 1.536 Mbps, 4 Mbps, 6 Mbps, 10 Mbps, and 22 Mbps, and 44.736 Mbps. The NNI port configuration is used for connecting two networks together for bidirectional messaging. NNI Port Only Connection provides a Frame Relay Network connection bases on port connection speeds of 384 Kbps, 1.536 Mbps, and 44.736 Mbps. The channel speed of the access channel must be sufficient to accommodate the Frame Relay port speed. Each port can accommodate multiple PVCs. UNI Port Only and NNI Port Only Connections are available on a month-to-month, one-year, three-year, or five-year term.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Section 3  $3^{rd}$  Revised Page 14a Cancels  $2^{nd}$  Revised Page 14a

#### DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)

Customers may access Port Only Connections via Telephone Company provided digital access facilities. The associated regulations, rates and charges under the appropriate Telephone Company Tariff shall apply in addition to the regulations, rates and charges associated with FRS.

The PVC must be associated with at least one Frame Relay port. A Frame Relay port can be associated with multiple PVCs. Additional PVCs are provisioned over the UNI via address mapping which enables Customer to have virtual connections to various locations.

<u>Permanent Virtual Circuit (PVC)</u> - Virtual connection between two Customer locations. The call is set up by service order rather than by dial-up signaling.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement.

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Section 3 5<sup>th</sup> Revised Page 15 Cancels 4<sup>th</sup> Revised Page 15

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - b. Provision of Service

FRS will consist of:

- UNI Port and Access Line, UNI Port Only, or Private NNI Port Only;
- CIR based PVCs;
- formation of the initial address map (Customer network topology)
- unlimited usage.

The basic service functionality consists of transporting, within a LATA, Frame Relay data units from one UNI or NNI to one or more different UNI or NNI(s). Each Frame Relay data unit is delivered unchanged from the source to the destination(s).

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

Permanent Virtual Circuit (PVC) Committed Information Rate (CIR) provides a mechanism for Customers to prioritize critical data on a per-PVC basis across a Frame Relay UNI. This feature allows all users to maintain the capability to transfer data within their CIR on a non-sequential, high-priority basis without potential packet data discard due to network congestion.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Section 3 6<sup>th</sup> Revised Page 16 Cancels 5<sup>th</sup> Revised Page 16

## DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered 1
  - 2. Regulations (Cont'd)
    - c. Permanent Virtual Circuit (PVC) Committed Information Rate (CIR)
       (Cont'd)

The following types of PVC CIR are available:

Standard - A Standard PVC is a logical channel path between two customer Frame Relay ports.

Multi-jurisdictional - A Multi-jurisdictional PVC is a logical channel path between two customer Frame Relay ports, one being an interstate port and the other an intrastate port. A Multi-jurisdictional PVC falls under federal jurisdiction and the PVC CIR rates, rules and regulations from the Verizon Telephone Companies FCC Tariff No. 20 are applicable, where available.

The maximum CIR allowed is determined by the lower of the two port speeds connected by the PVC. The maximum CIR allowed for port speeds at 1.536 Mbps and below is 75% of the lower of the two port speeds. For port speeds above 1.536 Mbps to 44.7136 Mbps, the maximum CIR allowed is 50% of the lower of the two port speeds.

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

Premier Permanent Virtual Circuit (PVC) Service - Premier PVC Service enables a customer to differentiate PVCs and assign a higher priority of service to specific PVCs. Premier PVC Service is intended for PVCs carrying delay-sensitive, loss-intolerant data and is available with all PVC CIR. When "Premier PVC Service", is ordered - A monthly recurring charge applies for each application of Premier PVC Service and is in addition to the applicable charges for Standard, Multijurisdictional, Standard Inter-worked and Multi-jurisdictional Interworked PVC' where facilities permit.

- d. Optional Features
  - 1. Additional PVCs per UNI

This feature provides the assignment of additional PVCs to the Frame Relay SNAL via address mapping. When any two addresses are mapped together, a PVC is created. This feature is also used when providing Frame Relay/ATM Service Interworking (FRASI) PVCs. FRASI PVCs are used to connect a Frame Relay Service UNI to an ATM UNI. Customer shall pay for each additional PVC after the initial one. Subject to technical constraints, Company may limit the number of additional PVCs to be assigned.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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 $\begin{array}{c} \text{Section 3}\\ 2^{\text{nd}} \text{ Revised Page 16a}\\ \text{Cancels 1}^{\text{st}} \text{ Revised Page 16a} \end{array}$ 

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - d. Optional Features (Cont'd)
      - 2. Customer Service Management (CSM)

Customer Service Management (CSM) is an optional feature that provides Customers with web-based reports. These reports give Customers the ability to extract "read-only" network traffic information regarding their networks thereby allowing Customers to monitor and manage their network performance. CSM is provided per Customer Division.

A Customer Division is a group of access connections and 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 Telephone Company reserves the right to temporarily interrupt CSM for maintenance, software upgrades, and in emergency situations.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Section 3 1<sup>st</sup> Revised Page 16b Cancels Original Page 16b

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - d. Optional Features (Cont'd)
      - 3. Backup UNI

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

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

Determining network configuration before and after the activation of Backup UNI service.

Providing the Telephone Company with the appropriate information required for joint development of the Backup UNI database.

Maintaining its own port configurations and router tables (for seamless changes from the Primary UNI to the Backup UNI, the customer must use the same addressing scheme on routers connected to the primary and backup sites).

Contacting the Telephone Company to request all activations and deactivations of Backup UNI service.

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Section 3 1<sup>st</sup> Revised Page 16c Cancels Original Page 16c

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - d. Optional Features (Cont'd)
      - 3. Metro Fractional Frame Relay Service

Metro Fractional Frame Relay UNI Port and Access Line Service will be delivered over a single (2-wire), copper pair between the customer's premises and the serving central office. The line code for the signal that delivers the Fractional DS1 payload is High-Bit-Rate Digital Subscriber Line (HDSL). The effective data rates available for this service are 128K and 256K.

The service will be available on a month-to-month basis or Term Payment Plans (TPP) of 1, 3 and 5 years.

A loop qualification is required for HDSL with a limit of 12,000 feet and provisioned only where HDSL facilities are available.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Section 3 4<sup>th</sup> Revised Page 17 Cancels 3<sup>rd</sup> Revised Page 17

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - e. Availability of Service

FRS and FRASI are limited to LATAs where suitable facilities are available.

f. Maintenance Window

To meet Customer's requirements, Company must occasionally perform network upgrades. 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 will be planned to provide Customers reasonable and timely notification and to minimize Customer service impacts.

g. Connections

Terminal equipment provided by Customer must meet the following interface requirements:

- Customer shall provide compatible equipment (e.g., Routers, Data Service Units/Channel Service Units, etc.) in accordance with interface specifications necessary to connect with Company equipment.
- Company's responsibility will be limited to the furnishing of data communication facilities suitable for the digital Frame Relay UNI or NNI for provisioning the UNI to Customer's premises network interface.
- Company is not responsible for the installation, operation or maintenance of any equipment provided by Customer.
- Customer is responsible for provisioning the inside wire from the network interface to the Frame Relay compatible equipment.

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<sup>&</sup>lt;sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

 $\begin{array}{c} \text{Section 3}\\ 3^{rd} \text{ Revised Page 17a}\\ \text{Cancels 2}^{nd} \text{ Revised Page 17a} \end{array}$ 

# DESCRIPTION OF DATA SERVICES AND RATES

# B. Frame Relay - Grandfathered <sup>1</sup>

- 2. Regulations (Cont'd)
  - h. Administrative Charge

An administrative charge will be applied whenever a change is made to Customer's network map, at Customer's request. Such changes are defined as those rearrangements necessary to add, delete, or rearrange the configuration of an existing network map. Although multiple changes may be caused by such actions, only one administrative charge will apply.

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

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Section 3 5<sup>th</sup> Revised Page 18 Cancels 4<sup>th</sup> Revised Page 18

# DESCRIPTION OF DATA SERVICES AND RATES

# B. Frame Relay - Grandfathered <sup>1</sup>

- 2. Regulations (Cont'd)
  - j. Minimum Service Period

All UNI Port Access Line Connection, 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.

k. Jurisdictional Change Charge

Conversion of service to another jurisdiction will be treated as a disconnect of service and establishment of new service. A nonrecurring Jurisdictional Change Charge applies per UNI or NNI.

1. Term Pricing Plans (TPPs)

Extended commitment periods of 1, 3, and 5 year Term Pricing Plans (TPPs) are available for UNI Port With Access Line Connection, UNI Port Only Connection, and NNI Port Only Connection rate elements.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Section 3 3<sup>rd</sup> Revised Page 19 Cancels 2<sup>nd</sup> Revised Page 19

# DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 2. Regulations (Cont'd)
    - m. Termination Liability

In the event Frame Relay Service is terminated by the Customer prior to completion of the initial term commitment period, Termination Liability Charges, as set forth in General Regulations, Section 1, 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. 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.

1. End of Term Options

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

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

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Section 3 1<sup>st</sup> Revised Page 19a Cancels Original Page 19a

# DESCRIPTION OF DATA SERVICES AND RATES

# B. Frame Relay - Grandfathered <sup>1</sup>

- 2. Regulations (Cont'd)
  - m. Termination Liability (Cont'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 Telephone Company's service area, but the service is unavailable;

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

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

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

The Telephone Company provides the new service via tariff or on an individual case basis (ICB), and

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Frontier West Virginia Inc. Section 3 5<sup>th</sup> Revised Page 20 Cancels 4<sup>th</sup> Revised Page 20 DESCRIPTION OF DATA SERVICES AND RATES Frame Relay - Grandfathered 1 (C) З. Rates A nonrecurring charge applies for each installation of certain 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. Installation Monthly Charge Charge UNI Port with Access Line, each a. Month to Month Term \*\* 56/64 Kbps\* 56 Kbps 64 Kbps 384 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22Mbps 44.736 Mbps One Year Term 56/64 Kbps\* 56 Kbps 64 Kbps 384 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22Mbps 44.736 Mbps

384 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22Mbps 44.736 Mbps 56 Kbps 64 Kbps Five Year Term 56/64 Kbps\* 56 Kbps 64 Kbps 384 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22Mbps 44.736 Mbps \* Effective June 21, 2003, This service is no longer available to new Customers. \*\*Rates Deregulated. Moves, additions, or changes are not permitted. <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new (N) installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement.

(N) Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Three Year Term 56/64 Kbps\* 56 Kbps 64 Kbps

в.

Section 3 4<sup>th</sup> Revised Page 20a Cancels 3<sup>rd</sup> Revised Page 20a

(C)

## DESCRIPTION OF DATA SERVICES AND RATES

# B. Frame Relay - Grandfathered $^1$

3. Rates (Cont'd)

S. Rates (cont d)	Installation Charge	Monthly _Charge
b. PVC CIR, per PVC**		
4 Kbps		
8/16/28/32 Kbps *		
8 Kbps		
16 Kbps		
28 Kbps		
32 Kbps		
42 Kbps		
48 Kbps		
56/64 Kbps *		
64 Kbps		
96 Kbps		
128 Kbps*		
128 Kbps		
192 Kbps		
256 Kbps		
288 Kbps		
384 Kbps		
512 Kbps		
576 Kbps		
768 Kbps		
1.152 Mbps		
1.536 Mbps		
2 Mbps		
3 Mbps		
4 Mbps		
5 Mbps		
6 Mbps		
7 Mbps		
8 Mbps		
9 Mbps		
10 Mbps		
11 Mbps		
12 Mbps		
13 Mbps		
14 Mbps		
15 Mbps		
16 Mbps		
17 Mbps		
18 Mbps		
19 Mbps		
20 Mbps		
21 Mbps		
22 Mbps		
NOTE: A Multi-jurisdictional PVC falls under federal jurisdicti		
rates, rules and regulations from the Verizon Telephone Companies are applicable, where available.	s FCC Tariff No. 20	
<pre>* Effective June 21, 2003 this service is no longer available to</pre>	new Customers Moves	
additions, or changes are not permitted.	new cuscomers. Moves,	
** Rates Deregulated.		
<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Move for [Frame Relay] Service. Upon service term expiration, thi Month service arrangement.		ion to a Month-to-
Issued by authority of an Order of the Public Servic	re Commission of Ma	st Virginia in <sup>(N)</sup>
	CC COMMITSSION OF WE	ot vilginia ill
Case No. 22-0412-T-T Dated May 9, 2022.		

Frontier West Virginia Inc.

 $\begin{array}{c} \text{Section 3}\\ 3^{rd} \text{ Revised Page 20b}\\ \text{Cancels 2}^{nd} \text{ Revised Page 20b} \end{array}$ 

## DESCRIPTION OF DATA SERVICES AND RATES

- B. Frame Relay Grandfathered <sup>1</sup>
  - 3. Rates (Cont'd)

		Installation Charge	Monthly Charge
b.	PVC CIR, per PVC** (Cont'd)		
	Premier PVC Service*		
с.	UNI Port Only, each**		
	Month-To-Month Term 56/64 Kbps 128 Kbps 256 Kbps 384 Kbps 512 Kbps 768 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22 Mbps 44.736 Mbps 256 Kbps 384 Kbps 512 Kbps 512 Kbps 768 Kbps 1.536 Mbps 4 Mbps 6 Mbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22 Mbps 44.736 Mbps 44.736 Mbps 44.736 Mbps		

\* Premier PVC Service is in addition to PVC CIR charges.

\*\*Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement.
(N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

Issued: April 26, 2022

Frontier	West	Virginia	Inc.
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Section 3  $2^{nd}$  Revised Page 20c Cancels  $1^{st}$  Revised Page 20c

## DESCRIPTION OF DATA SERVICES AND RATES

## B. Frame Relay - Grandfathered 1

3. Rates (Cont'd)

Installation	Monthly
Charge	Charge

c. UNI Port Only, each\*\*

Three Year Term 56/64 Kbps 128 Kbps 256 Kbps 384 Kbps 512 Kbps 768 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22 Mbps 44.736 Mbps Five Year Term 56/64 Kbps 128 Kbps 256 Kbps 384 Kbps 512 Kbps 768 Kbps 1.536 Mbps 4 Mbps 6 Mbps 10 Mbps 22 Mbps 44.736 Mbps

\*\*Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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Frontier West Virginia Inc.

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## DESCRIPTION OF DATA SERVICES AND RATES

#### Frame Relay - Grandfathered <sup>1</sup> Β.

3. Rates (Cont'd)

		Installation Charge	Monthly Charge
d.	NNI Port Only, each)*		
	Month-To-Month Term 384 Kbps 1.536 Mbps 44.736 Mbps		
	One Year Term 384 Kbps 1.536 Mbps 44.736 Mbps		
	Three Year Term 384 Kbps 1.536 Mbps 44.736 Mbps		
	Five Year Term 384 Kbps 1.536 Mbps 44.736 Mbps		
e.	Optional Features*		
	Customer Service Management per Customer Division		
	Backup UNI, Per Activation		

\* Rates Deregulated.

(N) <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this (N) service will transition to a Month-to-Month service arrangement.

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Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 21a Cancels 1st Revised Page 21a DESCRIPTION OF DATA SERVICES AND RATES B. Frame Relay - Grandfathered <sup>1</sup> 3. Rates (Cont'd) Installation Monthly Charge Charge e. Optional Features\* (Cont'd) Metro Fractional FRS UNI Port with Access Line, per UNI Month-to-Month 128K 256K 1-Year Term Payment Plan 128K 256K 3-Year Term Payment Plan 128K 256K 5-Year Term Payment Plan 128K 256K f. Administrative Charge\* Change in Customer Network Map g. Jurisdictional Change Charge\*,

per UNI or NNI

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [Frame Relay] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0412-T-T Dated May 9, 2022.

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#### DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \*

(C)

1. General

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

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

TLS is available where facilities and conditions permit.

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

- The UNI Port with Access Line Connection consists of a optical transport that provides a link from the customer's premises to one of the Telephone Company's TLS switches and the appropriate port interface connection.
- The TLS Ethernet Virtual Circuit (EVC) provides an Ethernet point-to-point virtual connection between customer locations.

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

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

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

**Ethernet Relay Service (ERS)** - a connection-oriented Ethernet TLS service that allows for point-to-point connectivity between customer designated locations within a LATA. The ERS service type, each Ethernet TLS Ethernet Virtual Circuit (TLS EVC) establishes a virtual LAN or CUG. An ERS Standard domain is comprised of any number of virtual LANs designated by the customer to be included in the ERS Standard domain. ERS Standard provides point-to-point connectivity between pairs of customer's access lines.

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

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Section 3 5th Revised Page 23 Cancels 4th Revised Page 23

## DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

(C)

2. Regulations

A typical TLS network will be limited to central offices in a specific geographic location. Customers gain access to the shared TLS network via TLS equipment used to deliver service which may be deployed in Customer's serving central office, deployed in leased space near the Customer's location, or deployed at the Customer's location. At subscription, the Customer has an option of selecting access lines at speeds of 10 Mbps, 100 Mbps, 1000 Mbps or 10 Gbps. The 10 Gbps UNI speed is only available through the Ethernet Relay Service (ERS) Premier access line service type.

TLS is available to Customers whose serving central office is equipped with TLS equipment and are located within the maximum allowable fiber range of the serving central office. The maximum dB loss cannot exceed 20dB @1310nm for 10 Mbps. service and 26 dB @1310nm for 100 Mbps. Service depends upon the Customer's distance from the TLS equipped central office and the transport facility used in each servicing arrangement.

If Customer's serving central office is not equipped with TLS equipment, Customer may obtain service from a TLS equipped central office by paying an interoffice mileage charge in addition to TLS basic access charges. The dB loss cannot exceed the maximum allowable range, as specified in regulation above.

The transmission mode supported is dependent on the access rate. The supported transmission mode for 10 Mbps access is half-duplex and full duplex. Full duplex 10 Mbps access is available only where conditions and facilities permit. The supported transmission mode for 100 Mbps access is full duplex.

The standard Customer connectivity model for UNI Port and Access includes direct fiber or existing transport facilities between the Customer's location and the TLS equipped central office. Customers requesting Protected Access Line service will have two standby fibers provisioned in addition to the primary direct fiber. Customer may select to have their UNI Port and Access provisioned over an optical transport system. If so, the customer must choose one of the following UNI Port with Access arrangements:

- Protected Non-Diverse: Customer connectivity is provisioned over an optical transport system as a survivable service with an alternate (non diverse) facility between the Customer's location and the TLS equipped central office. The optical protected interoffice charge is applicable to the 1000 Mbps speed when interoffice facilities are required.
- Protected Diverse: Customer connectivity is provisioned over an optical transport system as a survivable service with an alternate and diverse fiber path between the Customer's location and the TLS equipped central office. The optical protected interoffice charge is applicable to the 1000 Mbps speed when interoffice facilities are required. Dual entrance at the customer premises and company wire centers are not considered a standard feature of this option, but may be provided through special construction charges, where facilities are available.
- Protected Private: Customer connectivity is provisioned over a dedicated private ring which the customer has already obtained from the Telephone Company. At least one node of the private ring must be located in a TLS equipped central office.
- \* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

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Section 3 2nd Revised Page 23a Cancels 1st Revised Page 23a

## DESCRIPTION OF DATA SERVICES AND RATES

- B. Transparent LAN Service \* (Cont'd)
  - 2. Regulations (Cont'd)

When Customer elects to have TLS served from a remote Central Office (CO), because the serving CO is not TLS equipped, it is Customer's responsibility to monitor the status of TLS equipment availability in the serving CO and to decide whether or not to initiate a reroute of TLS facilities when local service is available. The charges to reroute service will be identical to a new installation.

a. Provision of Service (Cont'd)

TLS will consist of:

- Optical transport pair from Customer's premises to the serving central office.
- Network Interface Device (NID) at customers premises to terminate fiber pair or other optical transport.
- Network Management including fault monitoring and diagnostics, performance and network configuration applications and manual monitoring when necessary.
- Dedicated Port on the switch

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Section 3 2nd Revised Page 23a.1 Cancels 1st Revised Page 23a.1

## DESCRIPTION OF DATA SERVICES AND RATES

# B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - a. Provision of Service (Cont'd)
    - <u>User Network Interface (UNI) Port With Access Line Connection</u>
       For EMS service type, the customer may select a Standard Access Line or a Protected Access Line Connection.
    - 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. UNI Port With Access Line Connection is only available where facilities and conditions permit. UNI Port With Access Line Connections are available as either EMS or ERS. Connectivity can be established only between/among UNI Port With Access Line Connections of the same service type.

For ERS service type, the customer must select a Premier Access Line. Protected Access Line Connection is not available with ERS service.

- Ethernet TLS Ethernet Virtual Circuit (Ethernet TLS EVC)
- An Ethernet TLS EVC provides point-to-point Ethernet connectivity between two UNIs and between a UNI and an NNI. Ethernet TLS EVCs are only available with ERS.
- Ethernet TLS EVCs are available with the following class of service:

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

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

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

An ERS EVC - can include up to three service classes (ERS-B, ERS-PD and ERS-RT) as described above within each EVC. The customer will be required to identify the B, PD and RT Class of Service Ethernet frames by one of the following choices, as appropriate.

- 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).
- \* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

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Section 3 1st Revised Page 23a.2 Cancels Original Page 23a.2

## DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - a. Provision of Service (Cont'd)
    - Interoffice mileage, where applicable
    - Protected Access Line is provisioned as a survivable service with an alternate fiber pair between the central office and the customer premises. Protected Access Line, in most situations, will allow the Company to detect and recover a failure and move the customer's data to an alternate fiber pair in approximately one second. Both fiber pairs must be served by the same central office and must have the same access speed. The second fiber pair will be routed over a diverse fiber path when possible
    - Ethernet Virtual Circuit (EVC) For customers who order the ERS service type with the standard class of service, a monthly rate applies on a per EVC basis and varies by the bandwidth selected (10 Mbps, 100 Mbps and 1000 Mbps). The EVC bandwidth must be equal to the lower speed bandwidth of the end points it is connecting. The number of EVCs permitted on a circuit is limited as follows: 10 Mbps = 2 EVCs; 100 Mbps = no more than 10 EVCs; 1000 Mbps = no more than 75 EVCs.
    - Interoffice Mileage, where applicable
    - Optional FeaturesCustomer Service Management (CSM)

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Section 3 1st Revised Page 23b Cancels Original Page 23b

# DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

2. Regulations (Cont'd)

b. Availability of Service

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

TLS is available where facilities and conditions permit. Special construction charges may apply.

c. Connections

The network interface is the LAN interface on the TLS equipment at Customer's premises. Customer is responsible for any inside wire required in connecting the LAN to the TLS equipment.

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

(0)

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Section 3 3rd Revised Page 24 Cancels 2nd Revised Page 24

#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - d. Limitations

The Customer's location must be within the maximum allowable range of the TLS equipped central office.

e. 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 11PM and 8AM. Network upgrades are planned to provide Customers reasonable and timely notification in order to minimize any impact on the Customers service.

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Issued: January 30, 2013

Section 3 1st Revised Page 24a Cancels Original Page 24a

#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

2. Regulations (Cont'd)

f. Service Level Agreements (SLA)

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

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

The TLS SLA includes the following measurements:

- Operational SLAs
   Mean Time to Repair (MTTR)
   Network Availability
  - neework invariability
- Network Performance SLAs
  - Ethernet Virtual Circuit (EVC) Class of Service (CoS) Performance
    - Data Delivery Ratio (DDR)
    - Round Trip Delay (RTD)
    - Jitter

The SLA SRC will apply to the following TLS elements:

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

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

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

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## DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

2. Regulations (Cont'd)

- f. Service Level Agreements (SLA) (Cont'd)
  - 1. Operational Service Level Agreements (SLAs)
    - (a) Mean Time to Repair (MTTR)

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

#### MTTR Measurement

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

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Issued: January 30, 2013

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#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 1. Operational Service Level Agreements (SLAs) (Cont'd)
      - (a) Mean Time to Repair (MTTR) (Cont'd)

# MTTR SRCs

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

(b) Network Availability

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

# Network Availability Measurement

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

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

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

## Network Availability SRCs

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Section 3 1st Revised Page 24d Cancels Original Page 24d

#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 2. Network Performance SLAs

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

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

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

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Section 3 1st Revised Page 24e Cancels Original Page 24e

#### DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 2. Network Performance SLAs (Cont'd)

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

(a) Data Delivery Ratio (DDR)

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

Real Time EVC Bandwidth - Data Delivery Ratio

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

## Real Time EVC Bandwidth - Data Delivery SRCs

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

Priority Data EVC Bandwidth - Data Delivery Ratio

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

#### Priority Data EVC Bandwidth - Data Delivery SRCs

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

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Section 3 1st Revised Page 24f Cancels Original Page 24f

#### DESCRIPTION OF DATA SERVICES AND RATES

- B. Transparent LAN Service \* (Cont'd)
  - 2. Regulations (Cont'd)
    - f. Service Level Agreements (SLA) (Cont'd)
      - 2. Network Performance SLAs (Cont'd)
        - (b) Round Trip Delay (RTD)

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

Real Time EVC Bandwidth - Delay Measurement

The Telephone Company threshold for Delay is 20 milliseconds.

Real Time EVC Bandwidth - Delay SRCs

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

Priority Data EVC Bandwidth - Delay Measurement

The Telephone Company threshold for Delay is 50 milliseconds.

Priority Data EVC Bandwidth - Delay SRCs

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

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Section 3 1st Revised Page 24g Cancels Original Page 24g

#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 2. Network Performance SLAs (Cont'd)
      - (c) Jitter

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

Real Time EVC Bandwidth - Jitter Measurement

The Telephone Company threshold for Delay is 5 milliseconds.

Real Time EVC Bandwidth - Jitter SRC

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

- 3. Validation for Operational and Network Performance SLAs
  - (a) Customer Validation

Operational SLAs:

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Section 3 1st Revised Page 24h Cancels Original Page 24h

## DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 3. Validation for Operational and Network Performance SLAs (Cont'd)
      - (a) Customer Validation (Cont'd)

Network Performance SLAs:

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

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

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

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

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

(b) Telephone Company Validation

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Section 3 1st Revised Page 24i Cancels Original Page 24i

#### DESCRIPTION OF DATA SERVICES AND RATES

- B. Transparent LAN Service \* (Cont'd)
  - 2. Regulations (Cont'd)
    - f. Service Level Agreements (SLA) (Cont'd)
      - 4. SLA Exclusions

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Section 3 1st Revised Page 24j Cancels Original Page 24j

## DESCRIPTION OF DATA SERVICES AND RATES

# B. Transparent LAN Service \* (Cont'd)

- 2. Regulations (Cont'd)
  - f. Service Level Agreements (SLA) (Cont'd)
    - 5. Limitation on SRCs

The combined total of any SRCs applied to the Customer's TLS service for a calendar month must meet the following conditions:

- (a) For any calendar year, the total SRCs shall not exceed ten percent (10%) of the total annual revenue of the prior calendar year billed to the Customer for qualifying service elements, or \$200,000 per Customer, whichever is less. For any calendar year in which the Customer had less than twelve (12) full months of revenue for qualifying service elements in the prior calendar year, the SRCs may not exceed \$20,000 per Customer for TLS Network.
- (b) To receive an SRC, the Customer must request such SRC in writing within thirty (30) calendar days of the end of the monitoring period of the referenced SRC. The request must include a list of all impacted EVC identification numbers and the type of SRC requested for each EVC.

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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Section 3 3rd Revised Page 24k Cancels 2nd Revised Page 24k

#### DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \* (Cont'd)

3. Rate Applications

The following rate elements are applicable to TLS:

- UNI Port With Access Line Connection
- Ethernet Virtual Circuit (EVC)
- Interoffice Mileage
- Domain/LAN Extension Equipment Changes
- Optional Features
- - Customer Service Management
- a. UNI Port With Access Line Connection

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

- 1. <u>Standard Access Line</u> (available for EMS Service Type Only) - A monthly rate applies on a per line basis, based on the speed of the access connection (i.e., 10 MBPS, 100 MBPS, or 1000 MBPS). The Standard Access Line is offered on a month-to-month basis, or as a three-year or five-year Term Commitment Plan. A nonrecurring charge applies to the installation of Standard Access Lines provided on a month-to-month basis. Besides the standard connectivity model, Standard Access Line is offered with three other types of UNI Port with Access Line Connections, where facilities exist.
  - (1) Protected Non-Diverse
  - (2) Protected Diverse
  - (3) Protected Private
- 2. <u>Protected Access Line</u> (available for EMS Service Type Only) -Protected Access Lines are provisioned as a survivable service with an alternate fiber pair between the central office and the customer premises. Protected Access Lines, in most situations, allow the Company to recover from a detected failure by moving the customer's data to an alternate fiber pair in approximately one second. Both fiber pairs must be served by the same central office and must have the same access speed. The second fiber pair will be routed over a diverse fiber path when possible. A monthly rate applies on a per line basis, based on the speed of the access connection (i.e., 100 MBPS or 1000 MBPS) as well as applicable IOF charges calculated on each set of fiber pairs. The Protected Access Line is offered on a month-to-month basis, or as a three-year or five-year Term Commitment Plan. A nonrecurring charge will apply to the installation of a Protected Access Line provided on a month-to-month basis. Protected Access Line is only offered with a direct fiber UNI Port with Access Line Connection, where facilities exist.
- \* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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Section 3 3rd Revised Page 24k.1 Cancels 2nd Revised Page 24k.1

## DESCRIPTION OF DATA SERVICES AND RATES

#### Transparent LAN Service \* (Cont'd) Β.

- 3. Rate Applications applicable to TLS (Cont'd)
  - UNI Port With Access Line Connection (Cont'd) а.
    - 3. Premier Access Line - A monthly rate applies on a per-line basis, based on the speed of the access line (i.e., 10 Mbps. 100 Mbps. 1000 Mbps or 10 Gbps). A Premier Access Line must be purchased in conjunction with some combination of ERS-B, ERS-PD, and/or ERS-RT EVC service classes, which are described in section B.1. The Premier Access Line is offered on a month-to-month basis or as a 3 Year or 5 Year Term Plan. A nonrecurring charge applies to the installation of the UNI provided on a month-to-month basis. A customer can not mix Premier UNI Ports with any other UNI port type.

The percentage of each Premier Access Line UNIs allowed for  ${\tt EVC}\ {\tt b}{\tt andwidt}{\tt h}\ {\tt is}\ {\tt limited},\ {\tt where}\ {\tt connections}\ {\tt must}\ {\tt comply}\ {\tt with}$ each of the following threshold requirements:

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

Besides the standard connectivity model, Premier Access Line is offered with three other types of UNI Port with Access Line Connections, where facilities exist.

- (1) Protected Non-Diverse(2) Protected Diverse
- (3) Protected Private
- EMS Real Time (EMS-RT) Access Line A monthly rate applies 4. on a per-line basis, based on the speed of the access connection (i.e., 100 MBPS or 1000 MBPS). This enhanced service class configures a fixed portion of the UNI to be configured for Real Time Traffic, where each 100 MBPS UNI has CIR = 5 MBPS with EIR = 0 with each 1000 MBPS UNI has CIR = 20 MBPS with EIR = 0. The remainder of the UNI can be used for CIR = 0 and EIR = 0 traffic. The EMS-RT Access Line is offered on a month-to-month basis or as a 3 Year or 5 Year Term Plan. A nonrecurring charge applies to the installation of the EMS-RT Access Line provided on a month-to-month basis. A customer can not mix an EMS-RT Access Line with the ERS Service type, but may mix EMS-RT Access Line with EMS Access Lines. Besides the standard connectivity model, EMS - Real Time Access Line is offered with three other types of UNI Port with Access Line Connections, where facilities exist.
  - (1) Protected Non-Diverse
  - (2) Protected Diverse
  - (3) Protected Private
- \* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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3rd Revised Page 24k.2

Section 3

Cancels 2nd Revised Page 24k.2

## DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

b. Ethernet Virtual Circuit (EVC)

For customers who order the Standard Access Line, a monthly rate will apply on a per EVC bandwidth basis. ERS Standard is the only EVC class available with the Standard Access Line. The EVC bandwidth must be equal to the bandwidth of the lowest speed of the end points it is connecting. ERS Standard EVCs are purchased on a month-to-month basis. A non-recurring setup charge will apply per ERS Standard EVC.

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

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

10 Mbps less than or = 2 EVCs100 Mbps less than or = 16 EVCs1000 Mbps less than or = 75 EVCs.

10 Gbps less than or = 250 EVCs

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

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

c. Interoffice Mileage

The Interoffice Mileage charge is based on the Per Mile charge multiplied by the distance between the Customer's serving central office and the nearest TLS equipped central office (a central office equipped with a switch, node, or other Telephone company equipment capable of delivering service, via a shared fiber path or network infra-structure). This interoffice distance is measured in airline miles, based upon the latitude and longitude of each central office. The mileage measurement is calculated as specified by NECA Tariff FCC No. 4. The mileage rate applies on a per mile basis. This charge applies in addition to the applicable rates and charges for the UNI Port with Access Line, or Premier Access Line. Optical protected mileage interoffice transport is available for the 1000M UNI speed. The protected transport options for 10/100M UNI speeds include optical protected interoffice transport when needed.

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

## DESCRIPTION OF DATA SERVICES AND RATES

- B. Transparent LAN Service \* (Cont'd)
  - 3. Rate Applications applicable to TLS (Cont'd)
    - d. Domain/LAN Extension Equipment Changes

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

e. Customer Service Management (CSM)

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

CSM will be provided where conditions and facilities permit.

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

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

\* Effective March 1, 2013, this service is limited to existing customers at (N) their existing location. (N)

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Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

Section 3 3rd Revised Page 25 Cancels 2nd Revised Page 25

#### DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

- 3. Rate Applications (Cont'd)
  - f. Minimum Period

The minimum period for TLS under the month-to-month plan is nine months. The regulations applicable to TLS is provided under a Term Payment Plan as specified in B.3.c. following.

g. Moves and Changes

When Customer requests a move or relocation of the TLS access line to a different address and/or 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.

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

h. Termination Liability

In the event TLS 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.

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.

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

\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

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Section 3 3rd Revised Page 26 Cancels 2nd Revised Page 26

#### DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \* (Cont'd)

- 3. Rate Applications
  - i. Termination Liability (Cont'd)

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

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

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

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

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

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

\* Effective March 1, 2013, this service is limited to existing customers at their (N) existing location. (N)

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Section 3 6th Revised Page 27 Cancels 5th Revised Page 27

## DESCRIPTION OF DATA SERVICES AND RATES

#### B. Transparent LAN Service \*\* (Cont'd)

4. Rates

Nonrecurring	Monthly
Charge	Charge

a. Standard Access Line, per Line\*

## UNI Port with Access:

Month to Month Plan 10 Mbps Half duplex Full duplex 100 Mbps 1000 Mbps Three Year Plan 10 Mbps Half duplex Full duplex 100 Mbps 1000 Mbps Five Year Plan 10 Mbps Half duplex Full duplex 100 Mbps 1000 Mbps

# UNI Port with Access - Protected Non-Diverse

Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps Three Year Plan 10 Mbps 100 Mbps 1000 Mbps

\* Rates Deregulated.

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## ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

Section 3 2nd Revised Page 27a Cancels 1st Revised Page 27a

#### DESCRIPTION OF DATA SERVICES AND RATES

#### в. Transparent LAN Service \*\* (Cont'd)

4. Rates

Monthly Nonrecurring Charge Charge a. Standard Access Line, each (Cont'd) UNI Port with Access - Protected Diverse: Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps Three Year Plan 10 Mbps 100 Mbps 1000 Mbps Five Year Plan 10 Mbps. 100 Mbps. 1000 Mbps. UNI Port with Access - Protected Private: Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps Three Year Plan 10 Mbps 100 Mbps 1000 Mbps Five Year Plan 10 Mbps 100 Mbps 1000 Mbps b. Protected Access Line, each Month to Month Plan 100 Mbps 1000 Mbps Three Year Plan 100 Mbps 1000 Mbps Five Year Plan 100 Mbps 1000 Mbps \* Rates Deregulated. \*\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

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ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

Section 3 3rd Revised Page 27b Cancels 2nd Revised Page 27b

## DESCRIPTION OF DATA SERVICES AND RATES

в. Transparent LAN Service \*\* (Cont'd)

4. Rates

с.

	Nonrecurring <u>Charge</u>	Monthly <u>Charge</u>
Premier Access Line, each		
UNI Port with Access: Month to Month Plan 10 Mbps 100 Mbps 1000 Mbps 10 Gbps		
Three Year Plan 10 Mbps 100 Mbps 1000 Mbps 10 Gbps		
Five Year Plan 10 Mbps 100 Mbps 1000 Mbps 10 Gbps		
UNI Port with Access - Protected	d Non-Diverse:	
Month to Month Plan 10 Mbps. 100 Mbps. 1000 Mbps.		
Three Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.		
Five Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.		
UNI Port with Access - Protected	d Diverse:	

Month to Month Plan 10 Mbps. 100 Mbps. 1000 Mbps.

Three Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.

Five Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.

\* Rates Deregulated.

\*\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

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Section 3 1st Revised Page 27c Cancels Original Page 27c

## DESCRIPTION OF DATA SERVICES AND RATES

## B. Transparent LAN Service \*\* (Cont'd)

# 4. Rates

4.	Rates		Nonzoguzzia	Monthly	
			Nonrecurring Charge	Monthly <u>Charge</u>	
	c.	Premier Access Line, each (Cont'd)			
		UNI Port with Access - Protected Private:			
		Month to Month Plan 10 Mbps. 100 Mbps. 1000 Mbps.			
		Three Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.			
		Five Year Plan 10 Mbps. 100 Mbps. 1000 Mbps.			
	d.	EMS - Real Time Access Line, each			
		UNI Port with Access			
		Month to Month Plan 100 Mbps 1000 Mbps			
		Three Year Plan 100 Mbps 1000 Mbps			
		Five Year Plan 100 Mbps 1000 Mbps			
		UNI Port with Access - Protected N	on-Diverse:		
		Month to Month Plan 100 Mbps. 1000 Mbps.			
		Three Year Plan 100 Mbps. 1000 Mbps.			
		Five Year Plan 100 Mbps. 1000 Mbps.			
* Rate	* Rates Deregulated.				
	<pre>** Effective March 1, 2013, this service is limited to existing customers at</pre>				
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ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207 Frontier West Virginia Inc. Section 3 1st Revised Page 27d Cancels Original Page 27d DESCRIPTION OF DATA SERVICES AND RATES B. Transparent LAN Service \*\* (Cont'd) (C) 4. Rates Nonrecurring Monthly Charge Charge d. EMS - Real Time Access Line, each (Cont'd) UNI Port with Access - Protected Diverse: Month to Month Plan 100 Mbps. 1000 Mbps. Three Year Plan 100 Mbps. 1000 Mbps. Five Year Plan 100 Mbps. 1000 Mbps. UNI Port with Access - Protected Private: Month to Month Plan 100 Mbps. 1000 Mbps. Three Year Plan 100 Mbps. 1000 Mbps. Five Year Plan 100 Mbps. 1000 Mbps. ERS - Ethernet Virtual Circuit (EVC) е. 1. ERS EVC Setup, per EVC 2. ERS EVC Standard (ERS-Std), per EVC 100 Mbps 1000 Mbps \* Rates Deregulated.

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		DESCRIP	TION OF DATA :	SERVICES A	ND RAT	ES		
Transpa	rent	LAN Service	** (Cont'd)					(C)
Rates								
					1	Nonrecurring	Monthly	
e.			rtual Circuit	(EVC)	-	Charge	Charge	
	3.	Class 1 Mbps 2 Mbps 3 Mbps 4 Mbps 5 Mbps 6 Mbps 7 Mbps 8 Mbps 9 Mbps 10 Mbps 20 Mbps 30 Mbps 30 Mbps 50 Mbps 50 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 200 Mbps 300 Mbps 500 Mbps 500 Mbps 500 Mbps 500 Mbps 500 Mbps	ic (ERS-B) Bai	ndwidth, p	Per			
		1000 Mbps						
	Transpa Rates	Transparent Rates e. ERS (Co	ntier West Virginia Inc. DESCRIP Transparent LAN Service Rates e. ERS Ethernet Vi (Cont'd) 3. ERS EVC Bas Class 1 Mbps 2 Mbps 3 Mbps 4 Mbps 5 Mbps 5 Mbps 6 Mbps 5 Mbps 6 Mbps 7 Mbps 8 Mbps 9 Mbps 10 Mbps 20 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 50 Mbps 100 Mbps 500 Mbps	P.S.CW.Va ntier West Virginia Inc. DESCRIPTION OF DATA : Transparent LAN Service ** (Cont'd) Rates e. ERS Ethernet Virtual Circuit (Cont'd) 3. ERS EVC Basic (ERS-B) Bas Class 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 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 200 Mbps 300 Mbps	P.S.CW.VaNO. 207 ntier West Virginia Inc. DESCRIPTION OF DATA SERVICES A Transparent LAN Service ** (Cont'd) Rates e. ERS Ethernet Virtual Circuit (EVC) (Cont'd) 3. ERS EVC Basic (ERS-B) Bandwidth, p Class 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 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 200 Mbps 300 Mbps	ntier West Virginia Inc. DESCRIPTION OF DATA SERVICES AND RAT Transparent LAN Service ** (Cont'd) Rates e. ERS Ethernet Virtual Circuit (EVC) (Cont'd) 3. ERS EVC Basic (ERS-B) Bandwidth, per Class 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 60 Mbps 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 80 Mbps 90 Mbps 100 Mbps 1	P.S.CW.VaNO. 207 ntier West Virginia Inc. lst Cancels O DESCRIPTION OF DATA SERVICES AND RATES Transparent LAN Service ** (Cont'd) Rates (Cont'd) 3. ERS Ethernet Virtual Circuit (EVC) (Cont'd) 3. ERS EVC Basic (ERS-B) Bandwidth, per Class 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 60 Mbps 70 Mbps 80 Mbps 100 Mbps 200 Mbps 300 Mbp	P.S.CW.VaNO. 207 Secti Ist Revised Page Cancels Original Page Cancels Original Page DESCRIPTION OF DATA SERVICES AND RATES Transparent LAN Service ** (Cont'd) Rates e. ERS Ethernet Virtual Circuit (EVC) (Cont'd) 3. ERS EVC Basic (ERS-B) Bandwidth, per Class 1 Mbps 2 Mbps 3 Mbps 4 Mbps 5 Mbps 6 Mbps 7 Mbps 10 Mbps 10 Mbps 10 Mbps 20 Mbps 30 Mbps 40 Mbps 10 Mbp

\* Rates Deregulated.

\*\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

(N) (N)

ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207 Frontier West Virginia Inc. Section 3 1st Revised Page 27f Cancels Original Page 27f DESCRIPTION OF DATA SERVICES AND RATES в. Transparent LAN Service \*\* (Cont'd) (C) 4. Rates Nonrecurring Monthly ERS Ethernet Virtual Circuit (EVC) (Cont'd) Charge e. Charge 4. ERS EVC Priority Data (ERS-PD) Bandwidth, per Class 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 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps 200 Mbps 300 Mbps 400 Mbps 500 Mbps 5. ERS EVC Real Time (ERS-RT) Bandwidth, per Class 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 60 Mbps 70 Mbps 80 Mbps 90 Mbps 100 Mbps \* Rates Deregulated. \*\* Effective March 1, 2013, this service is limited to existing customers at (N) their existing location. (N) Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 13-0110-T-T dated February 13, 2013.

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## DESCRIPTION OF DATA SERVICES AND RATES

# B. Transparent LAN Service \*\* (Cont'd)

4. Rates (Cont'd)

Nonrecurring	Monthly	
Charge	Charge	

- f. Interoffice Mileage, per line Per Mile Per Optical Protected Mile
- g. TLS Domain/LAN Extension Equipment Changes
- h. Optional Features Customer Service Management (CSM) Per Domain/VLAN

\* Rates Deregulated.

\*\* Effective March 1, 2013, this service is limited to existing customers at their existing location.

(N) (N)

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#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 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 a User Network Interface (UNI). This interface is available in various configurations including Port with Access Line Connection and Port Only Connection, with either incremental or full bandwidth.

The UNI Port with Access Line Connection is a dedicated digital line that provides a link from the Customer's premises to one of Company's ATM CRS hubs. UNIS are also provisioned as a Port Only Connection as defined in Sec. 3 A.1.B and as an Inverse Multiplexing ATM (IMA) Port with Access Line connection as defined in 3.A.1.C.

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

UNIs, Port Only Connections, PVCs and SVCs are further described in Section 3. C.2.b.following.

- 2. Regulations
  - a. Definition of Terms

Hub - A Telephone Company designated serving wire center that is equipped to provide service.

Maximum Burst Size - The term "Maximum Burst Size" (MBS) 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.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 2. Regulations (Cont'd)
  - b. Service Components

The major components of ATM CRS and their descriptions are:

1. 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 Customerdesignated premises and an ATM CRS hub. There are two types of UNIs: Full and Incremental. The Full UNI includes all available bandwidth in one rate, and the Incremental UNI is sold and provisioned with PVC and/or SVC bandwidth increments. The DS1 UNI is not offered in increments.

In order for Customer traffic to be carried on the network, each Incremental UNI requires at least one 5 Mbps or 15 Mbps increment of either PVC or SVC bandwidth. At least one PVC must also be established to use PVC 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 is provisioned on either Unprotected, Protected or Protected Diverse Synchronous Optical Network (SONET) facilities. The OC12c UNI Port with Access Line Connections is provisioned on either Protected or Protected Diverse Synchronous Optical Network (SONET) facilities. SONET is a standards-based fiber optic communication network that transports both asynchronous and synchronous digital signals using the Synchronous Transport Signal (STS) format. ATM OC3c 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. The Unprotected UNI Port with Access Line Connection is a type of OC3c ATM UNI that is provisioned 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 the technical specifications set forth in 3.C.2.c following.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered  $^1$
- 2. Regulations (Cont'd)
  - b. Service Components (Cont'd)
    - 1. User Network Interface (UNI) Port with Access Line Connection (Cont'd)

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 de-aggregates 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 3 A.1 B, may apply.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0416-T-T Dated May 3, 2022.

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup>
- 2. Regulations (Cont'd)

b. Service Components (Cont'd)

2. Port Only Connection

Port Only Connections can be established as a User Network Interface (UNI) arrangement. The UNI Port Only connection provides an ATM Cell Relay Network connection based on the port connection speeds of DS1, DS3, OC3c and OC12c. The ATM port speed will be consistent with the channel speed of the access channel. The actual throughput of Customer traffic cannot exceed the bandwidth of the access channel and port speed.

UNI Port Only Connections are available as either Incremental or Full. This refers to the bandwidth that is required to provision PVCs on the port. Incremental ports come with no bandwidth and bandwidth is purchased in increments based on Customer bandwidth requirements. Full ports come with all bandwidth included up to the maximum rate of the port. Each port can accommodate multiple PVCs or SVCs depending on the bandwidth purchased. UNI Port Only Connections are 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 Telephone Company, the associated regulations, rates and charges under the appropriate Telephone Company Tariff shall apply in addition to the regulations, rates and charges associated with ATM CRS Company-provided access facilities may also be provisioned on an Individual Case Basis (ICB) where access facilities are not generally available under the applicable tariff. Interconnection charges to connect access line services provided by the Telephone 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.

3. Permanent Virtual Circuit (PVC)

The PVC defines a virtual connection across a UNI between the Customer premises and the Telephone Company's ATM CRS hub. Each UNI requires at least one PVC in order for the 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 Telephone Company provided ATM CRS switch(es). The PVCs may be provided on a point-topoint or point-to-multipoint basis. When a PVC is provided as a point-topoint virtual connection, transmission is bi-directional allowing for ATM CRS cells to be transmitted or received over the same PVC.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup>
- 2. Regulations (Cont'd)
  - b. Service Components (Cont'd)
    - 3. Permanent Virtual Circuit (PVC) (Cont'd)

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

If the information provided by the Customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction and will be rated from the Verizon Telephone Companies Tariff FCC No. 20.

channels does not exceed the aggregate service parameters of the VPC.

4. Switched Virtual Circuit (SVC)

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup>
- 2. Regulations (Cont'd)
  - b. Service Components (Cont'd)
    - 5. Effective Bandwidth

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

c. Technical Specifications

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

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

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

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 2. Regulations (Cont'd)
  - d. Provision of Service

ATM CRS includes:

- 1. At least one UNI Port with Access Line or Port Only, two UNI IMA Port with Access Lines, which has a maximum nominal capacity for either DS1 (1.544Mbps), DS3 (45 Mbps), OC3c (155 Mbps), or OC12c (622 Mbps). The OC3c UNIs are provisioned over Protected or Protected Diverse SONET or Unprotected Fiber facilities. OC12c UNIs are provisioned over Protected or Protected Diverse SONET 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 Unprotected OC3c SONET facilities do not have an alternate facility.
- 2. Unlimited usage on purchased bandwidth.
- 3. Incremental UNIs must have at least one increment of effective bandwidth (either PVC or SVC) in order for traffic to traverse the network. The DS1, DS3, OC3c, and OC12c Full UNIs are equipped with the full effective bandwidth.
- 4. When PVC bandwidth is purchased, one or more PVCs must be selected for Customer traffic to traverse the network.
- 5. Two types of PVCs, (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)
- e. Tier Structure for Local Serving Offices

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

f. Service Functionality

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

## ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 2. Regulations (Cont'd)
  - g. Class of Service Parameters
    - 1. Constant Bit Rate (CBR)
      - a) Peak/Sustained Cell Rate:

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

b) Non-conforming cells:

Discarded

c) Cell Delay Variation Tolerance (CDVT):

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

- 2. Variable Bit Rate (VBR) Real Time/Non-Real Time
  - a) Sustained Cell Rate (SCR):

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

b) 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.)

c) Non-conforming cells:

Discarded

d) Cell Delay Variation Tolerance (CDVT):

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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## DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 2. Regulations (Cont'd)
  - h. Special Conditions
    - 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.
    - 2. 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.

i. Responsibility of the Customer

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

j. Responsibility of the Company

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

ATM CRS is supported by the Telephone 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.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

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#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. Rates
  - A. Application of Rates and Charges
    - 1. Rate Elements
      - a) User Network Interfaces (UNIs) Port with Access Line Connection

A monthly rate applies on a per Port with Access Line basis, based on the speed (i.e., DS1, DS3, OC3c or OC12c) and/or type (i.e., Full or Incremental, 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.

d) Permanent Virtual Circuits (PVCs)

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

If the information provided by the Customer for the requested PVCs results in an interstate arrangement, the PVC falls under the federal jurisdiction and will be rated from the Verizon Telephone Companies Tariff FCC No. 20.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Section 3 3<sup>rd</sup> Revised Page 37 Cancels 2<sup>nd</sup> Revised Page 37

#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - A. Application of Rates and Charges (Cont'd)
    - 1. Rate Elements (Cont'd)
      - e) 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.

f) Closed User Groups (CUG)

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

2. Minimum Period

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

3. Extended Service Plan (ESP)

The ATM CRS UNI Port with Access Line Connection, UNI IMA Port With Access Line Connection, or UNI Port Only Connections, are available under an ESP.

ESPs are comprised of term commitments of one, two, three and five years at the applicable rates set forth in 3.B.1, regardless of when they subscribe to an ESP arrangement.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

## ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

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### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - A. Application of Rates and Charges (Cont'd)
    - 3. Extended Service Plan (Cont'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 in this Tariff 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.
- 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 their term commitment, Commit to a new term period,

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

### ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc.

Section 3 1<sup>st</sup> Revised Page 39 Cancels Original Page 39

#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - A. Application of Rates and Charges (Cont'd)
    - 3. Extended Service Plan (Cont'd)
      - c) End of Term Options (Cont'd)

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: (Cont'd)

Arrange for a change of service, or

Arrange for termination of the service.

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

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

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

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

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

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Section 3 1<sup>st</sup> Revised Page 40 Cancels Original Page 40

#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - A. Application of Rates and Charges (Cont'd)
    - 3. Extended Service Plan (Cont'd)
      - d) Early termination charges will not be assessed under the following circumstances: (Cont'd)

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

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

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

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

4. Moves

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

5. 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.

6. Acceptance Testing

At no additional charge, the Telephone 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.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

## ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 41 Cancels 1st Revised Page 41 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered <sup>1</sup> 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection a) DS1, each\* Monthly Rate Full One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two -Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) b) DS3, each\* Full One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

- \* Rates Deregulated.
- <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

## ADVANCED DATA SERVICES TARIFF P.S.C.-W.Va.-NO. 207

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 42 Cancels 1st Revised Page 42 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) b) DS3, each\* (Cont'd) Monthly Rate Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Section 3 Frontier West Virginia Inc. 2<sup>nd</sup> Revised Page 43 Cancels 1st Revised Page 43 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each Monthly\* Monthly Rate Full, protected (Cont'd) One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental, Protected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 44 Cancels 1st Revised Page 44 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Incremental, Protected (Cont'd) Monthly Rate Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Full, Unprotected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles)

Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

- \* Rates Deregulated.
- <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Section 3 Frontier West Virginia Inc. 2<sup>nd</sup> Revised Page 45 Cancels 1st Revised Page 45 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Full, Unprotected (Cont'd) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental, Unprotected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

- \* Rates Deregulated.
- <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 46 Cancels 1st Revised Page 46 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Full, Protected Diverse One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental, Protected Diverse One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles)

- Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles
- \* Rates Deregulated.
- <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Section 3 Frontier West Virginia Inc. 2<sup>nd</sup> Revised Page 47 Cancels 1st Revised Page 47 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Incremental, Protected Diverse (Cont'd) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Full, Protected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles)

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0416-T-T Dated May 3, 2022.

Tier 3 (Over 25 to 50 Miles)

Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

Tier 1 (0 to 5 Miles)

Three-Year

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 48 Cancels 1st Revised Page 48 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Full, Protected (Cont'd) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental, Protected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

> Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 49 Cancels 1st Revised Page 49 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Full, Protected Diverse One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

> Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 2<sup>nd</sup> Revised Page 50 Cancels 1st Revised Page 50 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC3c SONET, each\* (Cont'd) Monthly Rate Incremental Protected Diverse One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

\* Rates Deregulated.

Five-Year

Tier 1 (0 to 5 Miles)

Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 3rd Revised Page 50a Cancels 2<sup>nd</sup> Revised Page 50a DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges (Cont'd) 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd) c) OC12c SONET, each Full, Protected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles0 Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental, Protected One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) (D) <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service 

Issued by authority of an Order of the Public Service Commission of West Virginia in Case No. 22-0416-T-T Dated May 3, 2022.

will transition to a Month-to-Month service arrangement.

(N)

Frontier West Virginia Inc.

Section 3 1<sup>st</sup> Revised Page 50b Cancels Original Page 50b

# DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - B. Rates and Charges
    - 1. User Network Interfaces (UNIs) Port with Access Line Connection (Cont'd)
      - c) OC12c, SONET each (Cont'd)

Full, Protected Diverse

One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Incremental Protected Diverse One-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Two-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Three-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Five-Year Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles)

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc.

Section 3 1<sup>st</sup> Revised Page 50c Cancels Original Page 50c

#### DESCRIPTION OF DATA SERVICES AND RATES

- C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) Grandfathered <sup>1</sup> (C)
- 3. RATES (Cont'd)
  - B. Rates and Charges
    - d. User Network Interfaces (UNIs) Port Only Connection
      - 4) OC12c, each

Full

One-Year Two-Year Rate Three-Year Rate Five-Year Rate

Incremental

One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 1st Revised Page 50d Cancels Original Page 50d DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) – Grandfathered  $^{
m 1}$ 3. RATES (Cont'd) B. Rates and Charges 2. Inverse Multiplexing ATM (IMA)\* One-Year Two-Year Three-Year Five-Year Rate Rate Rate Rate First DS1, each (1.536 Mbps total bandwidth) a) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Second DS1, each (3 Mbps total bandwidth) b) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) C) Third DS1, each (4.5 Mbps total bandwidth) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Fourth DS1, each (6 Mbps total bandwidth) d) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) Fifth DS1, each (7.5 Mbps total bandwidth) e) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) f) Sixth DS1, each (9 Mbps total bandwidth) Full Tier 1 (0 to 5 Miles) Tier 2 (Over 5 to 25 Miles) Tier 3 (Over 25 to 50 Miles) (D) \* Rates Deregulated. (N) <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor

new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 3rd Revised Page 51 Cancels 1st Revised Page 51 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges 3. User Network Interfaces (UNIs) Port Only Connection\* Monthly Rate a) DS1, each Full One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate b) DS3, each Full One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate Incremental One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate c) OC3c, each Full One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate Incremental One-Year Rate Two-Year Rate Three-Year Rate Five-Year Rate \* Rates Deregulated. <sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N)

new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 3rd Revised Page 52 Cancels 1st Revised Page 52 Cancels 1st Revised Page 52 DESCRIPTION OF DATA SERVICES AND RATES C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 (C) 3. RATES (Cont'd) B. Rates and Charges 4. Permanent Virtual Circuits (PVC<sup>2</sup> per order) on\* 1. Virtual Channel Connections (VCCs)

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

2) Virtual Path Connections (VPCs)

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

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes nor (N) new installations for [ATM] Service. Upon service term expiration, this service | will transition to a Month-to-Month service arrangement. (N)

Frontier West Virginia Inc. Section 3 3<sup>rd</sup> Revised Page 53 Cancels 1st Revised Page 53 DESCRIPTION OF DATA SERVICES AND RATES (C) C. Asynchronous Transfer Mode (ATM) Cell Relay Service (CRS) - Grandfathered 1 3. RATES (Cont'd) B. Rates and Charges (Cont'd) 5. Effective Bandwidth for Incremental UNIs\* Non-Recurring Monthly Rate Charges CBR or VBR PVC Bandwidth a) DS3, OC3c-5 Mbps OC12c - 15 Mbps. b) CBR or VBR SVC Bandwidth DS3, OC3c-5 Mbps OC12c - 15 Mbps. C) UBR PVC and SVC Bandwidth DS3 OC3c 0C12c 6. Closed User Groups (CUG)<sup>1</sup>, per order, per UNI\* Nonrecurring Monthly Rate Charges Each CUG a) None

> b) Each subsequent CUG member added to a CUG None

\* Rates Deregulated.

<sup>1</sup> Effective May 31, 2022, Frontier will no longer support Moves, Adds or Changes (N) nor new installations for [ATM] Service. Upon service term expiration, this service will transition to a Month-to-Month service arrangement. (N)