

ACCESS SERVICE

Regulations, Rates and Charges
applying to the provision of Access Services
within a Local Access and Transport Area (LATA) or
equivalent Market Area for connection to interstate
communications facilities for Interstate Customers within
the Brightspeed Local Operating territories of the Issuing Carriers listed
on Title Page 2. Access Services are provided by
means of wire, fiber optics, radio or any other suitable
technology or a combination thereof.

This Brightspeed Local Operating Companies Interstate Service Guide NO. 8 contains rates, terms and conditions previously found in CenturyLink Operating Companies Interstate Service Guide NO. 8.

ACCESS SERVICE

ISSUING CARRIERS

CenturyTel of the Midwest-Kendall, LLC

CenturyTel of the Midwest-Wisconsin, LLC

CenturyTel of Monroe County, LLC

CenturyTel of San Marcos, Inc.

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CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

REGISTERED SERVICEMARKS

NONE

REGISTERED TRADEMARKS

NONE

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EXPLANATION OF SYMBOLS

- (C) - To signify changed regulation
- (D) - To signify discontinued rate or regulation
- (I) - To signify increase
- (N) - To signify new rate or regulation
- (R) - To signify reduction
- (S) - To signify reissued matter
- (T) - To signify a change in text but no change in rate or regulation
- (M) - To signify material relocated without change
- (Z) - To signify a correction

EXPLANATION OF ABBREVIATIONS

- ac - Alternating current
- ADSL - Asymmetric Digital Subscriber Line
- AML - Actual Measured Loss
- ANI - Automatic Number Identification
- AP - Program Audio
- AT&T - American Telephone and Telegraph Company
- ATM - Asynchronous Transfer Mode
- ATM-CRS - Asynchronous Transfer Mode Cell Relay Access Service
- BD - Business Day
- BDS - Business Data Services
- CBR - Constant Bit Rate
- CNCC - Customer Network Control Center
- COCTX - Central Office Centrex
- Cont'd - Continued
- CPE - Customer Provided Equipment
- CSACC - Customer Service Administration Control Center
- Ctx - Centrex
- DA - Directory Assistance
- db - decibel
- dBrnC - Decibel Reference Noise C-Message Weighted
- dBrnCO - Decibel Reference Noise C-Message Referenced to 0
- dBV - decibel(s) relative to 1 volt (reference)
- dc - direct current
- DSL - Digital Subscriber Line
- EDD - Envelope Delay Distortion
- ELEPL - Equal Level Echo Path Loss
- EML - Expected Measured Loss
- EPL - Echo Path Loss
- ERL - Echo Return Loss
- ESS - Electronic Switching System
- ESSX - Electronic Switching System Exchange
- EUCT - End User Channel Termination

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REFERENCE TO OTHER TARIFFS

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

The following tariffs are referenced in this service guide and may be obtained from the Federal Communications Commission's commercial contractor:

National Exchange Carrier
Association, Inc.
Special Construction
Tariff F.C.C. No. 3

National Exchange Carrier
Association, Inc.
Wire Center Information
Tariff F.C.C. No. 4

REFERENCE TO TECHNICAL PUBLICATIONS

The following technical publications are referenced in this service guide and may be obtained from Telcordia Technologies, Inc., Customer Services, One Ericsson Drive, RRC 4A-1060, Piscataway, NJ 08854-4156.

Technical Reference:

GR-253-CORE Issue 2 Synchronous Optical Network (SONET) Transport Systems:
Common Generic Criteria
Issued: December 1995

GR-1374-CORE Issue 1 SONET Inter-Carrier Interface Physical Layer Generic Criteria
for Carriers
Issued: December 1994

Multiple Exchange Carrier Access Billing (MECAB) Guidelines
Issued: June 1994

Multiple Exchange Carrier Ordering and Design (MECOD) Guidelines
Issued: May 1994

PUB 41004 Data Communications Using Voiceband Private Line Channels
Issued: October 1973

PUB 62310 (MDP-326-726) Digital Data System Channel Interface Specification
Issued: September 1983

PUB 62411 High Capacity Digital Service Channel Interface Specification
Issued: September 1983, Addendum October 1984

TR-NPL-000258 Compatibility Information for Feature Group D Switched Access Service
Issued: October 1985

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publications are referenced in this service guide and may be obtained from Telcordia Technologies, Inc., Customer Services, One Ericsson Drive, RRC 4A-1060, Piscataway, NJ 08854-4156.

Technical Reference: (Cont'd)

TR-NWT-000334 Issue 2 Voice Grade Switched Access Service - Transmission Parameter Limits and Interface Combinations
Issued: September 1990

TR-TSY-000335, Issue 2 Voice Grade Special Access Service - Transmission Parameter Limits and Interface Combinations
Issued: May 1990

TR-NPL-000337 Program Audio Special Access Service and Local Channel Services
Issued: July 1987

TR-NPL-000338 Television Special Access and Local Channel Services - Transmission Parameter Limits and Interface Combinations
Issued: December 1986

TR-NWT-000341 Digital Data Special Access Service - Transmission Parameter Limits and Interface Combinations
Issued: Issue 2, February 1993

TR-INS-000342 High Capacity Digital Special Access Service
Issued: February 1991

SR-STS-000307 Issue 5 NC/NCI Code Dictionary
Issued: May 1994

TR-TSY-000506 LATA Switching Systems Generic Requirements (LSSGR) Section 6
Issued: October 1987, Revised December 1988, Revised June 1990

TR-NPL-000054 High Capacity Digital Service (1.544 Mbs) Interface Generic Requirements for End Users
Issued: April 1989 Available: April 1989

TR-TSV-000905 Common Channel Signaling Network Interface Specification Supplement 1
Available: August 1989

TR-TSV-001370 Generic Requirements for Exchange Access Frame Relay PVC Service
Issued: Issue 1, May 1993

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publication is referenced in this service guide and may be obtained from the Bell Communications Technical Education Center, Room B02, 6200 Route 53, Lisle, IL 60532.

Telecommunications Transmission Engineering Volume 3 - Networks and Services
(Chapters 6 and 7)
Second Edition, 1980
Issued: June 1980

Broadband and Transport Network Generic Requirements: SONET
Transport Technologies
Document Number FR-SONET-17
Issue Number 005
Issue Date April 2008
Replaces FD-SONET-11

The following technical publication is referenced in this service guide and may be obtained from the National Exchange Carrier Association, Inc., Director - Access Tariffs, 100 So. Jefferson Road, Whippany, NJ 07981 and the Federal Communications Commission's commercial contractor.

PUB AS No. 1, Issue II Access Service
Issued: May 1984
Addendum: March 1987

The following publications are referenced in this service guide and may be obtained from the Government Printing Office, Superintendent of Documents, Document Control Branch, 941 N. Capital St., N.E., Washington, D.C. 20401.

Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook, National Communications System (NCSH 3-1-2).

Issued: July 1990 Available: August 1990

Telecommunication Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service User Manual, National Communications System (NCSM 3-1-1).

Issued: July 1990 Available: August 1990

The following publication is referenced in this service guide and may be obtained from Director-Sales Operations, Integrated Network Corporation, P.O. Box 6875, Bridgewater, N.J. 08807.

Integrated Network Corporation
Document CB-INC-100
Available: June 1990

The following publication is referenced in this service guide and may be obtained from AT&T, 26 Parsippany Road, Whippany, N.J. 07981.

AT&T PUB 62310
(and its Addendum 2 and Addendum 3)
Available: October 1989

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publications are referenced in this service guide and may be obtained from American National Standards Institute, 1430 Broadway, New York, New York 10018.

ANSI T1.102-1993, Digital Hierarchy - Electrical Interfaces.

ANSI T1.105-1995, Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

ANSI T1.602-1989, Integrated Services Digital Network (ISDN) - Data-Link Layer Signaling Specification for Application at the User-Network Interface.

ANSI T1.606-1990, Integrated Services Digital Network (ISDN) - Architectural Framework and Service Description for Frame-Relaying Bearer Service.

ANSI T1.606a-1992, Supplement to ANSI T1.606-1990 Integrated Services Digital Network (ISDN) - Architectural Framework and Service Description for Frame-Relaying Bearer Service (Congestion Management and Frame Size).

ANSI T1.606b-1993, Supplement to ANSI T1.606-1990 Integrated Services Digital Network (ISDN) - Architectural Framework and Service Description for Frame-Relaying Bearer Service (Network-to-Network Interface Requirements).

ANSI T1.617-1991, Integrated Services Digital Network (ISDN) - Signaling Specification for Frame Relay Bearer Service for Digital Subscriber Signaling System Number 1 (DSS1).

ANSI T1.617a-1994, Integrated Services Digital Network (ISDN) - Signaling Specification for Frame Relay Bearer Service for Digital Subscriber Signaling System Number 1 (DSS1) Protocol Encapsulation and PICS.

ANSI T1.618-1991, Integrated Services Digital Network (ISDN) - Core Aspects of Frame Protocol for Use with Frame Relay Bearer Service.

ANSI T1.413-1998, Network and Customer Installation Interfaces - Asymmetric Digital Subscriber Line (ADSL) Metallic Interface.

The following technical publication is referenced in this service guide and may be obtained from the Institute of Electrical and Electronics Engineers, Inc. (IEEE), 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331 (www.ieee.org).

IEEE Std. 802.3-2000, Part 3, Clauses 14, 21, 29 and 34 through 38- Information Technology-Telecommunications and Information Exchange Between Systems- Local and Metropolitan Area Networks-Specific Requirements

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publications are referenced in this service guide and may be obtained from the ATM Forum, Presidio of San Francisco, P.O. Box 29920, 572B Rucker Street, San Francisco, CA 94129-0920 (www.atmforum.com).

The ATM Forum Technical Committee, ATM User-Network Interface (UNI) Signaling Specification, Version 4.0, af-sig-0061.000, July, 1996.

The ATM Forum Technical Committee, BISDN Inter Carrier Interface (B-ICI) Specification, Version 2.0 (Integrated), af-bici-0013.003, December, 1995.

The ATM Forum Technical Committee, Private Network- Network Interface Specification, Version 1.0 (PNNI 1.0) af-pnni-0055.000, March, 1996.

The following publications are referenced in this service guide and may be obtained from the American National Standards Institute (ANSI), 11 West 42nd Street, New York, New York 10036.

ANSI / IEEE X3.802.3

Issue Date March 2002

ANSI / IEEE X3.802.3u

Issue Date June 1995

ANSI / IEEE X3.802.3z

Issue Date June 1998

The following publication is referenced in this service guide and may be obtained from the Internet Engineering Task Force (IETF), c/o Association Management Solutions, LLC, 48377 Fremont Blvd., Suite 117, Fremont, California 94538.

IETF RFC 4090

Issue Date May 2005

The following publication is referenced in this service guide and may be obtained from the International Communications Union, Place des Nations, 1211 Geneva 20, Switzerland.

ITU-TY.1731

Issue Date February 2008

ACCESS SERVICE

1. Application of Service Guide

- 1.1 This service guide contains regulations, rates and charges applicable to the provision of Special Access, Public Packet Data Network Service and other miscellaneous services, hereinafter referred to collectively as service(s). These services are provided to customers by the Issuing Carriers of this service guide, hereinafter the Company. This service guide also contains Access Ordering regulations and charges that are applicable when these services are ordered or modified by the customer.
- 1.2 The provision of such services by the Company as set forth in this service guide does not constitute a joint undertaking with the customer for the furnishing of any service.
- 1.3 All rates and charges set forth in this service guide provide for the furnishing of service where suitable facilities are available, and for installation in normal locations under normal working conditions, as determined by the Company. When special construction of access facilities is involved or when expedited or other abnormal installation is required, additional charges may apply and such charges based on the estimated costs associated with such special construction or installation will be developed as occasion requires. Special construction is involved when, at the request of a customer or group of customers, the Company constructs access facilities in order to provide service, and conditions, such as one or more of the following are present:
 - (a) There is no requirement for the facilities so constructed, other than to furnish the requested service.
 - (b) The facilities are of a type, or over a routing, other than that which the Company would normally utilize.
 - (c) The Company constructs a greater quantity of facilities than it would otherwise construct in order to fulfill the initial requirements of service.
 - (d) The Company expedites construction at greater expense than would otherwise be incurred.
 - (e) The Company constructs temporary facilities to provide service for the period during which permanent facilities are under construction.

Special construction, when ordered by the customer, will be provided and filed in F.C.C. BLOC No. 5.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company2.1.1 Scope

- (A) The Company does not undertake to transmit messages under this service guide.
- (B) The Company shall be responsible only for the installation, operation and maintenance of the services it provides.
- (C) The Company will, for maintenance purposes, test its service only to the extent necessary to detect and/or clear troubles.
- (D) Services are provided 24 hours daily, seven days per week, except as set forth in other applicable sections of this service guide.
- (E) The Company does not warrant that its facilities and services meet standards other than those set forth in this service guide.

2.1.2 Limitations(A) Assignment or Transfer of Services

The customer may assign or transfer the use of services provided under this service guide only where there is no interruption of use or relocation of the services. Such assignment or transfer may be made to:

- (1) another customer, whether an individual, partnership, association or corporation, provided the assignee or transferee assumes all outstanding indebtedness for such services, and the unexpired portion of the minimum period and the termination liability applicable to such services, if any; or
- (2) a court-appointed receiver, trustee or other person acting pursuant to law in bankruptcy, receivership, reorganization, insolvency, liquidation or other similar proceedings, provided the assignee or transferee assumes the unexpired portion of the minimum period and the termination liability applicable to such services, if any.

In all cases of assignment or transfer, the written acknowledgement of the Company is required prior to such assignment or transfer. This acknowledgement shall be made within 15 days from the receipt of notification. All regulations and conditions contained in this service guide shall apply to such assignee or transferee.

The assignment or transfer of services does not relieve or discharge the assignor or transferor from remaining jointly or severally liable with the assignee or transferee for any obligations existing at the time of the assignment or transfer.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company2.1.2 Limitations (Cont'd)(B) Use and Restoration of Services

The use and restoration of services shall be in accordance with Part 64, Subpart D, Appendix A, of the Federal Communications Commission's Rules and Regulations, which specifies the priority system for such activities.

(C) Sequence of Provisioning

Subject to compliance with the rules mentioned in (B) preceding, the services offered herein will be provided to customers on a first-come, first-served basis.

The first-come, first-served sequence shall be based upon the received time and date recorded, by stamp or other notation, by the Company on customer access orders. These orders must contain all the information as required for each respective service as delineated in other sections of this service guide. Customer orders shall not be deemed to have been received until such information is provided. Should questions arise which preclude order issuance due to missing information or the need for clarification, the Company will attempt to seek such missing information or clarification on a verbal basis.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company (Cont'd)2.1.3 Liability(A) Limits of Liability

The Company's liability, if any, for its willful misconduct is not limited by this service guide. With respect to any other claim or suit, by a customer or by any others, for damages associated with the installation, provision, termination, maintenance, repair or restoration of service, and subject to the provisions of (B) through (G) following, the Company's liability if any, shall not exceed an amount equal to the proportionate charge for the service for the period during which the service was affected. This liability for damages shall be in addition to any amounts that may otherwise be due the customer under this service guide as a Credit Allowance for a Service Interruption.

(B) Acts or Omissions

The Company shall not be liable for any act or omission of any other carrier or customer providing a portion of a service, nor shall the Company for its own act or omission hold liable any other carrier or customer providing a portion of a service.

(C) Damages to Customer Premises

The Company is not liable for damages to the customer premises resulting from the furnishing of a service, including the installation and removal of equipment and associated wiring, unless the damage is caused by the Company's negligence.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company2.1.3 Liability(D) Indemnification of Company(1) By the End User

The Company shall be indemnified, defended and held harmless by the end user against any claim, loss or damage arising from the end user's use of services offered under this service guide, involving:

- (a) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from the end user's own communications;
- (b) Claims for patent infringement arising from the end user's acts combining or using the service furnished by the Company in connection with facilities or equipment furnished by the end users or customer or;
- (c) All other claims arising out of any act or omission of the end user in the course of using services provided pursuant to this service guide.

(2) By the Customer

The Company shall be indemnified, defended and held harmless by the customer against any claim, loss or damage arising from the customer's use of services offered under this service guide, involving:

- (a) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from the customer's own communications;
- (b) Claims for patent infringement arising from the customer's acts combining or using the service furnished by the Company in connection with facilities or equipment furnished by the end user or customer or;
- (c) All other claims arising out of any act or omission of the customer in the course of using services provided pursuant to this service guide.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company2.1.3 Liability (Cont'd)(E) Explosive Atmospheres

The Company does not guarantee or make any warranty with respect to its services when used in an explosive atmosphere. The Company shall be indemnified, defended and held harmless by the customer from any and all claims by any person relating to such customer's use of services so provided.

(F) No License Granted

No license under patents (other than the limited license to use) is granted by the Company or shall be implied or arise by estoppel, with respect to any service offered under this service guide. The Company will defend the customer against claims of patent infringement arising solely from the use by the customer of services offered under this service guide and will indemnify such customer for any damages awarded based solely on such claims.

(G) Circumstances Beyond the Company's Control

The Company's failure to provide or maintain services under this service guide shall be excused by labor difficulties, governmental orders, civil commotions, criminal actions taken against the Company, acts of God and other circumstances beyond the Company's reasonable control, subject to the Credit Allowance for a Service Interruption as set forth in 2.4.4 following.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company (Cont'd)2.1.4 Provision of Services

The Company will provide to the customer, upon reasonable notice, services offered in other applicable sections of this service guide at rates and charges specified therein. Services will be made available to the extent that such services are or can be made available with reasonable effort, and after provision has been made for the Company's telephone exchange services.

2.1.5 Facility Terminations

The services provided under this service guide will include any entrance cable or drop wiring and wire or intrabuilding cable to that point where provision is made for termination of the Company's outside distribution network facilities at a suitable location inside a customer-designated premises. Such wiring or cable will be installed by the Company to the Point of Termination. Moves of the Point of Termination at the customer designated premises will be as set forth in 7.2.3 following.

2.1.6 Service Maintenance

The services provided under this service guide shall be maintained by the Company. The customer or others may not rearrange, move, disconnect, remove or attempt to repair any facilities provided by the Company, other than by connection or disconnection to any interface means used, except with the written consent of the Company.

2.1.7 Changes and Substitutions

Except as provided for equipment and systems subject to FCC Part 68 Regulations at 47 C.F.R. Section 68.110(b), the Company may, where such action is reasonably required in the operation of its business, substitute, change or rearrange any facilities used in providing service under this service guide. Such actions may include, without limitation:

- substitution of fiber or optical facilities,
- change of minimum protection criteria,
- change of operating or maintenance characteristics of facilities, or
- change of operations or procedures of the Company.

In case of any such substitution, change or rearrangement, the transmission parameters will be within the range as set forth in Section 15 following. The Company shall not be responsible if any such substitution, change or rearrangement renders any customer furnished services obsolete or requires modification or alteration thereof or otherwise affects their use or performance. If such substitution, change or rearrangement materially affects the operating characteristics of the facility, the Company will provide reasonable notification to the customer in writing. Reasonable time will be allowed for any redesign and implementation required by the change in operating characteristics. The Company will work cooperatively with the customer to determine reasonable notification procedures.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company (Cont'd)2.1.8 Refusal and Discontinuance of Service

(A) If a customer fails to comply with 2.1.6 preceding (Service Maintenance) or 2.3.1, 2.3.4, 2.3.6, 2.4.1 or 2.5 following (respectively, Damages, Availability for Testing, Balance, Payment Arrangements, Connections) including any customer's failure to make payments on the date and times therein specified, the Company may, on thirty (30) days written notice to the customer, by mail or by email if the customer is billed electronically or consents to receiving electronic notification, take the following actions:

- refuse additional applications for service and/or refuse to complete any pending orders for service, and/or
- discontinue the provision of service to the customer.

In the case of discontinuance all applicable charges, including termination charges, shall become due.

(B) If a customer fails to comply with 2.2.2 following (Unlawful and Abusive Use), the Company may, upon written request from a customer, or another exchange carrier, terminate service to any subscriber or customer identified as having utilized service provided under this service guide in the completion of abusive or unlawful telephone calls. Service shall be terminated by the Company as provided for in its local terms of service, general and/or local exchange service tariffs.

In such instances when termination occurs the shall be indemnified, defended and held harmless by any customer or Exchange Carrier requesting termination of service against any claim, loss or damage arising from the Company's actions in terminating such service, unless caused by the Company's negligence.

(C) Except as provided for equipment or systems subject to the FCC Part 68 Rules in 47 C.F.R. Section 68.108, if the customer fails to comply with 2.2.1 following (Interference or Impairment), the Company will, where practicable, notify the customer that temporary discontinuance of the use of a service may be required; however, where prior notice is not practicable, the Company may temporarily discontinue service forthwith if such action is reasonable in the circumstances. In case of such temporary discontinuance, the customer will be notified promptly and afforded the opportunity to correct the condition which gave rise to the temporary discontinuance. During such period of temporary discontinuance, credit allowance for service interruptions as set forth in 2.4.4 following is not applicable.

ACCESS SERVICE

2. General Regulations2.1 Undertaking of the Company2.1.8 Refusal and Discontinuance of Service (Cont'd)

- (D) When access service is provided by more than one company, the companies involved in providing the joint service may individually or collectively deny service to a customer for nonpayment. Where the company(s) affected by the nonpayment is incapable of effecting discontinuance of service without cooperation from the other joint providers of Access Service, such other company(s) will, if technically feasible, assist in denying the joint service to the customer. Service denial for such joint service will only include calls originating or terminating within, or transiting, the operating territory of the companies initiating the service denial for nonpayment. When more than one of the joint providers must deny service to effectuate termination for nonpayment, in cases where a conflict exists in the applicable tariff or service guide provisions, the regulations of the end office company shall apply for joint service discontinuance.
- (E) If the Company does not refuse additional applications for service and/or does not discontinue the provision of the services as specified for herein, and the customer's noncompliance continues, nothing contained herein shall preclude the Company's right to refuse additional applications for service and/or to discontinue the provision of the services to the non-complying customer without further notice.

2.1.9 Notification of Service-Affecting Activities

The Company will provide the customer reasonable notification of service-affecting activities that may occur in the normal operation of its business. Such activities may include, but are not limited to the following:

- equipment or facilities additions,
- removals or rearrangements,
- routine preventative maintenance, and
- major switching machine change-out.

Generally, such activities are not individual customer service specific, but may affect many customer services. No specific advance notification period is applicable to all service activities. The Company will work cooperatively with the customer to determine reasonable notification requirements.

2.1.10 Coordination with Respect to Network Contingencies

The Company intends to work cooperatively with the customer to develop network contingency plans in order to maintain maximum network capability following natural or man-made disasters which affect telecommunications services.

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2. General Regulations (Cont'd)2.1.11 Provision and Ownership of Telephone Numbers

The Company reserves the reasonable right to assign, designate or change telephone numbers, any other call number designations associated with Access Services, or the Company serving central office prefixes associated with such numbers, when necessary in the conduct of its business. Should it become necessary to make a change in such number(s), the Company will furnish to the customer six (6) months notice, by Certified U.S. Mail, of the effective date and an explanation of the reason(s) for such change(s).

2.2 Use2.2.1 Interference or Impairment

The characteristics and methods of operation of any circuits, facilities or equipment provided by other than the Company and associated with the facilities utilized to provide services under service guide shall not:

- interfere with or impair service over any facilities of the Company, its affiliated companies, or its connecting and concurring carriers involved in its services,
- cause damage to their plant,
- impair the privacy of any communications carried over their facilities, or
- create hazards to the employees of any of them or the public.

2.2.2 Unlawful and Abusive Use

- (A) The service provided under this service guide shall not be used for an unlawful purpose or used in an abusive manner.

Abusive use includes:

- (1) The use of the service of the Company for a call or calls, anonymous or otherwise, in a manner reasonably expected to frighten, abuse, torment, or harass another;
- (2) The use of the service in such a manner as to interfere unreasonably with the use of the service by one or more other customers.

ACCESS SERVICE

2. General Regulations (Cont'd)2.3 Obligations of the Customer2.3.1 Damages

The customer shall reimburse the Company for damages to Company facilities utilized to provide services under this service guide caused by the negligence or willful act of the customer or resulting from the customer's improper use of the Company facilities, or due to malfunction of any facilities or equipment provided by other than the Company. Nothing in the foregoing provision shall be interpreted to hold one customer liable for another customer's actions. The Company will, upon reimbursement for damages, cooperate with the customer in prosecuting a claim against the person causing such damage and the customer shall be subrogated to the right of recovery by the Company for the damages to the extent of such payment.

2.3.2 Ownership of Facilities and Theft

Facilities utilized by the Company to provide service under the provisions of service guide shall remain the property of the Company. Such facilities shall be returned to the Company by the customer, whenever requested, within a reasonable period. The equipment shall be returned in as good condition as reasonable wear will permit.

2.3.3 Equipment Space and Power

The customer shall furnish or arrange to have furnished to the Company, at no charge, equipment space and electrical power required by the Company to provide services under service guide at the points of termination of such services. The selection of ac or dc power shall be mutually agreed to by the customer and the Company. The customer shall also make necessary arrangements in order that the Company will have access to such spaces at reasonable times for installing, testing, repairing or removing Company facilities used to provide services.

2.3.4 Availability for Testing

Access to facilities used to provide services under this service guide shall be available to the Company at times mutually agreed upon in order to permit the Company to make tests and adjustments appropriate for maintaining the services in satisfactory operating condition. Such tests and adjustments shall be completed within a reasonable time. As set forth in 2.4.4(C)(4) following, no credit will be allowed for any interruptions involved during such tests and adjustments.

2.3.5 Reserved For Future Use

ACCESS SERVICE

2. General Regulations2.3 Obligations of the Customer (Cont'd)2.3.6 Balance

All signals for transmission over the facilities used to provide services under this service guide shall be delivered by the customer balanced to ground except for ground start, duplex (DX) and McCulloch-Loop (Alarm System) type signaling and dc telegraph transmission at speeds of 75 baud or less.

2.3.7 Design of Customer Services

Subject to the provisions of 2.1.7 preceding (Changes and Substitutions), the customer shall be solely responsible, at its own expense, for the overall design of its services and for any redesigning or rearrangement of its services which may be required because of changes in facilities, operations or procedures of the Company, minimum protection criteria or operating or maintenance characteristics of the facilities.

2.3.8 References to the Company

The customer may advise end users that certain services are provided by the Company in connection with the service the customer furnishes to end users; however, the customer shall not represent that the Company jointly participates in the customer's services.

ACCESS SERVICE

2. General Regulations2.3 Obligations of the Customer (Cont'd)2.3.9 Claims and Demands for Damages

- (A) With respect to claims of patent infringement made by third persons, the customer shall defend, indemnify, protect and save harmless the Company from and against all claims arising out of the combining with, or use in connection with, the services provided under service guide, any circuit, apparatus, system or method provided by the customer.
- (B) The customer shall defend, indemnify and save harmless the Company from and against any suits, claims, losses and damages, including punitive damages, attorney fees and court costs by third persons arising out of the construction, installation, operation, maintenance, or removal of the customer's circuits, facilities, or equipment connected to the Company's services provided under service guide including, without limitation, Worker's Compensation claims, actions for infringement of copyright and/or unauthorized use of program material, libel and slander actions based on the content of communications transmitted over the customer's circuits, facilities or equipment, and proceedings to recover taxes, fines, or penalties for failure of the customer to obtain or maintain in effect any necessary certificates, permits, licenses, or other authority to acquire or operate the services provided under service guide; provided, however, the foregoing indemnification shall not apply to suits, claims, and demands to recover damages for damage to property, death, or personal injury unless such suits, claims or demands are based on the tortious conduct of the customer, its officers, agents or employees.
- (C) The customer shall defend, indemnify and save harmless the Company from and against any suits, claims, losses or damages, including punitive damages, attorney fees and court costs by the customer or third parties arising out of any act of omission of the customer in the course of using services provided under service guide.

2.3.10 Coordination with Respect to Network Contingencies

The customer shall, in cooperation with the Company, coordinate in planning the actions to be taken to maintain maximum network capability following natural or man-made disasters which affect telecommunications services.

ACCESS SERVICE

2. General Regulations2.3 Obligations of the Customer (Cont'd)2.3.11 Jurisdictional Report and Certification Requirements(A) Certification Requirements - Special Access and Public Packet Data Network Services

When the customer orders Special Access Service or Public Packet Data Network Service and the customer certifies to the Company in writing that more than ten percent of the traffic is interstate, the service is considered to be interstate and is provided under this service guide.

Following initial certification, should the jurisdictional nature of the customer's Special Access or Public Packet Data Network Service change, the customer should inform the Company in writing of the change. The effective date of the change will be the date the Company receives the customer's notice of change. No charge applies for the jurisdictional change.

(B) Disputes Involving Jurisdictional Certification - Special Access and Public Packet Data Network Service

If a dispute arises concerning the certification of projected interstate traffic as described in (A) above, the Company will ask the customer to provide the data the customer used to determine that more than 10% of the traffic is interstate. The customer shall supply the data within thirty (30) days of the Company request. If the reply results in a jurisdictional change of a Special Access Service or Public Packet Data Network Service, the effective date of the change will be the date the Company receives the customer's reply. There is no charge when the customer's reply results in a jurisdictional change in the Special Access or Public Packet Data Network Service.

ACCESS SERVICE

2. General Regulations (Cont'd)2.4 Payment Arrangements and Credit Allowances2.4.1 Payment of Rates, Charges and Deposits(A) Deposits

The Company will only require a customer that has a proven history of late payments to the Company or does not have established credit, to make a deposit prior to or at any time after the provision of a service to the customer. No such deposit will be required of a customer which is a successor of a company which has established credit and has no history of late payments to the Company. Such deposit will not exceed the actual or estimated rates and charges for the service for a two month period. The fact that a deposit has been made in no way relieves the customer from complying with the Company's regulations as to the prompt payment of bills. At such time as the provision of the service to the customer is terminated, the amount of the deposit will be credited to the customer's account and any credit balance which may remain will be refunded.

Such a deposit will be refunded or credited to the account when the customer has established credit or, in any event, after the customer has established a one-year prompt payment record at any time prior to the termination of the provision of the service to the customer. In case of a cash deposit, for the period the deposit is held by the Company, the customer will receive interest at the same percentage rate as that set forth in (C)(2)(a) or in (C)(2)(b) following, whichever is lower.

The rate will be compounded daily for the number of days from the date the customer deposit is received by the Company to and including the date such deposit is credited to the customer's account or the date the deposit is refunded by the Company. Should a deposit be credited to the customer's account, as indicated above, no interest will accrue on the deposit from the date such deposit is credited to the customer's account.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.1 Payment of Rates, Charges and Deposits (Cont'd)(B) Bill Dates

The Company shall bill on a current basis all charges incurred by and credits due to the customer under service guide attributable to services established or discontinued during the preceding billing period. In addition, the Company shall bill in advance charges for all services to be provided during the ensuing billing period except for charges associated with service usage and for the Federal Government which will be billed in arrears. The bill day (i.e., the billing date of a bill for a customer for Access Service under service guide), the period of service each bill covers and the payment date will be as follows:

- (1) The Company will establish a bill day each month for each end user account or advise the customer in writing of an alternate billing schedule. Alternate billing schedules shall not be established on less than 60 days notice or initiated by the Company more than twice in any consecutive 12 month period.

The bill will cover non usage sensitive service charges for the ensuing billing period for which the bill is rendered, any known unbilled non usage sensitive charges for prior periods and unbilled usage charges for the period after the last bill day through the current bill day. Any known unbilled usage charges for prior periods and any known unbilled adjustments will be applied to this bill. Payment for such bills is due in immediately available funds by the payment date, as set forth in (C) following. If payment is not received by the payment date, a late payment penalty will apply as set forth in (C) following.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.1 Payment of Rates, Charges and Deposits (Cont'd)

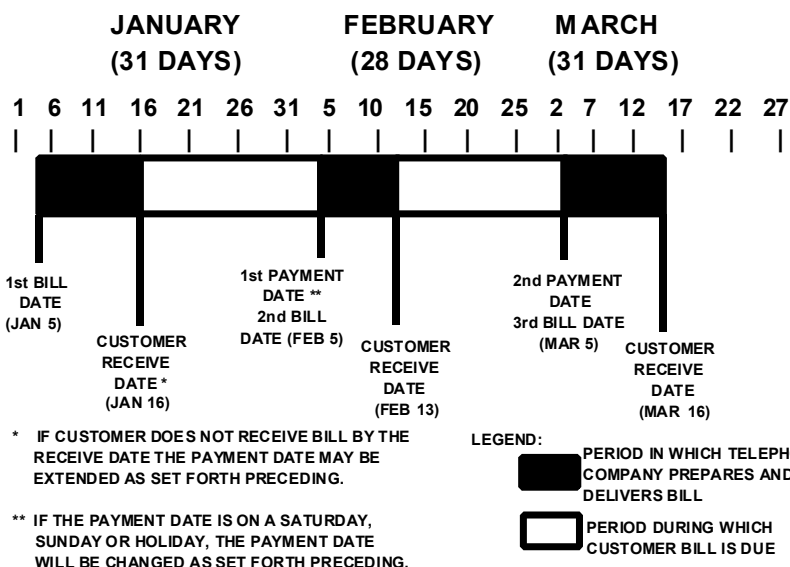
(C) Payment Dates and Late Payment Penalties

(1) All bills dated as set forth in (B) preceding for service provided to the customer by the Company are due 31 days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date), whichever is the shortest interval, except as provided herein, and are payable in immediately available funds. If the customer does not receive a bill at least 20 days prior to the 31 day payment due date, then the bill shall be considered delayed. When the bill has been delayed, upon request of the customer the due date will be extended by the number of days the bill was delayed. Such request of the customer must be accompanied with proof of late bill receipt.

If such payment date would cause payment to be due on a Saturday, Sunday or Legal Holiday, payment for such bills will be due from the customer as follows:

- If the payment date falls on a Sunday or on a Legal Holiday which is observed on a Monday, the payment date shall be the first non-Holiday day following such Sunday or Legal Holiday.
- If the payment date falls on a Saturday or on a Legal Holiday which is observed on Tuesday, Wednesday, Thursday or Friday, the payment date shall be the last non-Holiday day preceding such Saturday or Legal Holiday.

EXAMPLE: CALCULATION OF PAYMENT DATES



ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.1 Payment of Rates, Charges and Deposits(C) Payment Dates and Late Payment Penalties (Cont'd)

(2) Further, if no payment is received by the payment date or if a payment or any portion of a payment is received by the Company after the payment date as set forth in (1) preceding, or if a payment or any portion of a payment is received by the Company in funds which are not immediately available to the Company, then a late payment penalty shall be due to the Company. The late payment penalty shall be the payment or the portion of the payment not received by the payment date times a late factor. The late factor shall be the lesser of:

- (a) the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the payment date to and including the date that the customer actually makes the payment to the Company, or
- (b) 0.000407 per day, compounded daily for the number of days from the payment date to and including the date that the customer actually makes the payment to the Company.

(D) Billing Disputes Resolved in Favor of the Company

Late payment charges will apply to amounts withheld pending settlement of the dispute. Late payment charges are calculated as set forth in (C)(2) preceding except that when the customer disputes the bill on or before the payment date and pays the undisputed amount on or before the payment date, the penalty interest period shall not begin until 10 days following the payment date.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.1 Payment of Rates, Charges and Deposits (Cont'd)(E) Billing Disputes Resolved in Favor of the Customer

If the customer pays the total billed amount and disputes all or part of the amount, the Company will refund any overpayment. In addition, the Company will pay to the customer penalty interest on the overpayment. When a claim is filed within 90 days of the due date, the penalty interest period shall begin on the payment date. When a claim is filed more than 90 days after the due date, the penalty interest period shall begin from the date of the claim or the date of overpayment, whichever is later.

The penalty interest period shall end on the date that the Company actually refunds the overpayment to the customer. The penalty interest rate shall be the lesser of:

- (1) the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the first date to and including the last date of the period involved, or
- (2) 0.000407 per day, compounded daily for the number of days from the first date to and including the last date of the period involved.

(F) Proration of Charges

Adjustments for the quantities of services established or discontinued in any billing prorated to the number of days based on a 30 day month. The Company will, upon request, furnish within 30 days of a request and at no charge to the customer such detailed information as may reasonably be required for verification of any bill.

(G) Rounding of Charges

When a rate as set forth in this service guide is shown to more than two decimal places, the charges will be determined using the rate shown. The resulting amount will then be rounded to the nearest penny (i.e., rounded to two decimal places).

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances (Cont'd)2.4.2 Minimum Periods

The minimum period for which services are provided and for which rates and charges are applicable is one month except for the following, or as otherwise specified:

- Special Access High Capacity DS1 and DS3 Service
- Special Access Synchronous Optical Channel Service
- Asynchronous Transfer Mode Cell Relay Access Service Ports

The minimum period for which service is provided and for which rates and charges are applicable for a Specialized Service or Arrangement provided on an individual case basis as set forth in Section 12 following, is one month unless a different minimum period is established with the individual case filing.

When a service is discontinued prior to the expiration of the minimum period, charges are applicable, whether the service is used or not, as follows:

- (A) When a service with a one month minimum period is discontinued prior to the expiration of the minimum period, a one month charge will apply at the rate level in effect at the time service is discontinued.
- (B) When a service with a minimum period greater than one month is discontinued prior to the expiration of the minimum period, unless stated otherwise, the applicable charge will be the lesser of (1) the Company's total non recoverable costs less the net salvage value for the discontinued service or (2) the total monthly charges, at the rate level in effect at the time service is discontinued, for the remainder of the minimum period.

2.4.3 Cancellation of an Order for Service

Provisions for the cancellation of an order for service are set forth in other applicable sections of this service guide.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances (Cont'd)2.4.4 Credit Allowance for Service Interruptions(A) General

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this service guide or in the event that the protective controls applied by the Company result in the complete loss of service by the customer. An interruption period starts when an inoperative service is reported to the Company, and ends when the service is operative.

(B) When a Credit Allowance Applies

In case of an interruption to any service, allowance for the period of interruption, if not due to the negligence of the customer, shall be provided.

For the following services, any period during which the error performance is below that specified for the service will be considered as an interruption.

- Digital Data Access
- High Capacity HC1
- Special Access Services
- Public Packet Data Service
- Synchronous Optical Channel Service (OB, OD, OF, OG)
- SONET OC Ring (OB, OD, OF, OG)

Service interruptions for Specialized Service or Arrangements provided under Section 12 following shall be administered in the same manner as those set forth in this section (2.4.4) unless other regulations are specified with the individual case filing.

Credit allowances are computed as follows:

(1) Special Access Service and Ethernet Virtual Private Line Rate Elements

For Special Access Services rate elements (i.e., Multiplexing, Add/Drop Multiplexing, Customer Node, Customer Premises Port, UNI Port Connection, NNI Port Connection, EVC and QoS) no credit shall be allowed for an interruption of less than 30 minutes. The customer shall be credited for an interruption of 30 minutes or more at the rate of 1/1440 of the monthly charges for the facility or service for each period of 30 minutes or Major Fraction Thereof that the interruption continues.

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

(a) Two-point Services

For two-point services, the monthly charge shall be the total of all the monthly rate element charges associated with the service (i.e., two channel terminations, channel mileage and optional features and functions).

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.4 Credit Allowance for Service Interruptions(B) When a Credit Allowance Applies (Cont'd)(1) Special Access Service and Ethernet Virtual Private Line Rate Elements (Cont'd)(b) Multipoint Services

For multipoint services, the monthly charge shall be only the total of all the monthly rate element charges associated with that portion of the service that is inoperative (i.e., a channel termination per customer designated premises, channel mileage and optional features and functions).

(c) Multiplexed Services

For multiplexed services, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service that is inoperative. When the facility which is multiplexed or the multiplexer itself is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with the service to the hub and any individual services to the hub. For Special Access, those charges include Channel Termination, Channel Mileage, multiple and optional features and functions such as Add/Drop Multiplexing, Customer Node and Customer Premises Port. When the service which rides a channel of the multiplexed facility is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service from the hub or wire center equipped for Add/Drop Multiplexing to a customer premises, Company central office or Public Packet Data Network Service.

(d) Public Packet Data Network Services

For Public Packet Data Network Service rate elements, the monthly charge shall be the total of all monthly rate element charges associated with the service.

(e) Synchronous Optical Channel Service

For Synchronous Optical Channel Service the monthly charge shall be the total of all monthly rate element charges associated with that portion of the service which is inoperative, (i.e., Channel Termination, Channel Mileage, Customer Node and Customer Premises Port). When the facility provided via an Add/Drop Multiplexer is inoperative, the monthly charge shall be the total of all monthly charges associated with that portion of the service (i.e., Channel Termination, Channel Mileage and Central Office Port).

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.4 Credit Allowance for Service Interruptions(B) When a Credit Allowance Applies(1) Special Access Service and Ethernet Virtual Private Line Rate Elements (Cont'd)(f) SONET OC Ring

An out of service credit will apply for the following SONET OC ring rate elements, where applicable, should the service be interrupted due to the Company's system's failure to switch to protected electronics and/or facilities within one (1) second in those locations connected to the Company surveillance system unless such interruptions are a result of conditions outside the Company's control:

- Customer Node
- Customer Configuration Interface
- Central Office Node
- Central Office Configuration Interface
- Local Channel
- Alternate Central Office Channel
- Interoffice Channel
- Internodal Channel
- SONET Regeneration

Credit will be predicated on information provided by the Company's and the customer's network surveillance systems associated with this service arrangement. The out-of-service credit will be calculated based on the monthly rate element charges of that portion of the inter-office network rendered inoperative. A maximum limit of one month's recurring charge per rate element will be allotted for an interruption or series of interruptions within any one billing period.

(g) Ethernet Virtual Private Line

For Ethernet Virtual Private Line (EVPL) service, no credit allowance shall be allowed for an interruption of less than one minute. If covered facilities fail for one minute or more, the customer will be credited 100% of the monthly recurring charges associated with the interrupted facility.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances (Cont'd)2.4.4 Credit Allowance for Service Interruptions (Cont'd)(B) When a Credit Allowance Applies (Cont'd)(2) Program Audio Special Access Services

For Program Audio Special Access Services, no credit shall be allowed for an interruption of less than 30 seconds. The customer shall be credited for an interruption of 30 seconds or more as follows:

- (a) For two-point services, when monthly rates are applicable, the credit shall be at the rate of $1/8640$ of the monthly charges for the service for each period of 5 minutes or fraction thereof that the interruption continues.
- (b) For two-point services, when daily rates are applicable, the credit shall be at the rate of $1/288$ of the daily charges for the service for each period of 5 minutes or fraction thereof that the interruption continues.
- (c) For multipoint services, when monthly rates are applicable, the credit shall be at the rate of $1/8640$ of the monthly charges for each channel termination, channel mileage and optional features and functions that are inoperative for each period of 5 minutes or fraction thereof that the interruption continues.
- (d) For multipoint services, when daily rates are applicable, the credit shall be at the daily rate of $1/288$ of the daily charges for channel termination, channel mileage and optional features and functions that are inoperative for each period of 5 minutes or fraction thereof that the interruption continues.
- (e) For multipoint services, the credit for the monthly or daily charges includes the charges for the distribution amplifier only when the distribution amplifier is inoperative.
- (f) When two or more interruptions occur during a period of 5 consecutive minutes, such multiple interruptions shall be considered as one interruption.

(3) Credit Allowances Cannot Exceed Monthly Rate

The credit allowance(s) for an interruption or for a series of interruptions shall not exceed any monthly rate, less any discounts, for the service interrupted in any one monthly billing period.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.4 Credit Allowance for Service Interruptions (Cont'd)(C) When a Credit Allowance Does Not Apply

No credit allowance will be made for:

- (1) Interruptions caused by the negligence of the customer.
- (2) Interruptions of a service due to the failure of equipment or systems provided by the customer or others.
- (3) Interruptions of a service during any period in which the Company is not afforded access to the premises where the service is terminated.
- (4) Interruptions of a service when the customer has released that service to the Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer prior to the release of that service. Thereafter, a credit allowance as set forth in (B) preceding applies.
- (5) Interruptions of a service which continue because of the failure of the customer to authorize replacement of any element of special construction. The period for which no credit allowance is made begins on the seventh day after the customer receives the Company's written notification of the need for such replacement and ends on the day after receipt by the Company of the customer's written authorization for such replacement.
- (6) Periods when the customer elects not to release the service for testing and/or repair and continues to use it on an impaired basis.
- (7) An interruption or a group of interruptions, resulting from a common cause that would result in credit in an amount less than one dollar.
- (8) When the service outage is caused by the failure of customer provided terminal equipment or failure caused by the customer at a single point of entrance on the SONET OC Ring.

(D) Use of an Alternative Service Provided by the Company

Should the customer elect to use an alternative service provided by the Company during the period that a service is interrupted, the customer must pay the rates and charges for the alternative service used.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.4 Credit Allowance for Service Interruptions (Cont'd)(E) Temporary Surrender of a Service

In certain instances, the customer may be requested by the Company to surrender a service for purposes other than maintenance, testing or activity relating to a service order. If the customer consents, a credit allowance will be granted. The credit allowance will be 1/1440 of the monthly rate for each period of 30 minutes or fraction thereof that the service is surrendered. In no case will the credit allowance exceed the monthly rate for the service surrendered in any one monthly billing period.

2.4.5 Re-establishment of Service Following Fire, Flood or Other Occurrence(A) Nonrecurring Charges Do Not Apply

Charges do not apply for the re-establishment of service following a fire, flood or other occurrence attributed to an Act of God provided that:

- (1) The service is of the same type as was provided prior to the fire, flood or other occurrence.
- (2) The service is for the same customer.
- (3) The service is at the same location on the same premises.
- (4) The re-establishment of service begins within 60 days after Company service is available. (The 60 day period may be extended a reasonable period if the renovation of the original location on the premises affected is not practical within the allotted time period).

(B) Nonrecurring Charges Apply

Nonrecurring Charges apply for establishing service at a different location on the same premises or at a different premises pending re-establishment of service at the original location.

2.4.6 Title or Ownership Rights

The payment of rates and charges by customers for the services offered under the provisions of service guide does not assign, confer or transfer title or ownership rights to proposals or facilities developed or utilized, respectively, by the Company in the provision of such services.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances (Cont'd)2.4.7 Access Services Provided By More Than One Company

When an Access Service is provided by more than one company, the companies involved will mutually agree upon one of the billing methods as set forth in (A) (1) and (2) following based on the service being provided. The companies will notify the customer in writing of the billing method being used. The customer will place the order for the service as set forth in 5.3 following dependent upon the billing method.

(A) Meet Point Billing

Meet Point Billing is required when an access service is provided by multiple companies for Special Access.

Each company jointly providing the access service will receive an order or a copy of the order from the customer as specified in 5.3.2 following and arrange to provide the service.

The name of the Bill Rendering Company will be included in the meet point billing notification provided to the customer by all the companies on all meet point billed services.

There are two Meet Point Billing Options, Single Bill and Multiple Bill. These billing options are explained in (1) and (2) following. The Single Bill option is the preferred method. However, when a single bill option cannot be agreed to by all companies providing service, the multiple bill option is the default.

Each company must provide meet point billing notification to the customer, in writing, when new service is ordered or thirty days prior to changing an existing meet point arrangement. The notification should include the following:

- The Meet Point Billing Option that will be used,
- The company(s) that will render the bill(s),
- The company(s) to whom payment(s) should be remitted, and
- The company(s) that will provide the bill inquiry function.

A company that renders a meet point bill, the Bill Rendering Company, will render the bill in accordance with the industry standards as described in the Multiple Exchange Carrier Access Billing (MECAB) Guidelines and the Multiple Exchange Carrier Ordering and Design (MECOD) Guidelines. The bill will include cross reference(s) to the other Company(s) providing service and common circuit identifiers. Should a billing dispute arise, the terms and conditions of the Bill Rendering company will apply.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.7 Access Services Provided by More Than One Company(A) Meet Point Billing (Cont'd)(1) Single Bill Option

The single bill option allows the customer to receive one bill for access services that are provided by more than one company. The single bill option provides the following two billing alternatives:

- Single Bill/Multiple Tariff or Service Guide
- Single Bill/Single Tariff or Service Guide

These options are described following in (a) and (b) respectively.

(a) Single Bill/Multiple Tariff or Service Guide

The single bill/multiple tariff or service guide bill is prepared by the Bill Rendering Company but reflects all rates and charges for each connecting company's part of the service based on each company's access tariff or service guide.

The Bill Rendering Company will:

- determine and include all recurring and nonrecurring rates and charges for each involved company;
- identify each involved company's rates and charges separately on the bill;
- forward the bill to the customer and provide a copy of the bill to companies; and
- advise the customer how to remit the payment, either directly to each company involved in the provision of this meet point billed service, or, as a single payment made to the Bill Rendering Company. If payments are to be sent directly to the Bill Rendering Company, the non Bill Rendering Company(s) will provide the customer with written authorization for the payment arrangement.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.7 Access Services Provided by More Than One Company(A) Meet Point Billing(1) Single Bill Option (Cont'd)(b) Single Bill/Single Tariff or Service Guide

The single bill/single tariff or service guide bill provides a meet point bill that is billed completely at the Billing Rendering Company's rates and regulations.

The Bill Rendering Company will:

- determine and include on the access bill all usage data and all other recurring and nonrecurring rates and charges per its access tariff or service guide; and
- forward the bill to the customer.

The customer will remit the payment to the Bill Rendering Company.

(2) Multiple Bill Option

Under the Multiple Bill Option each company providing the access service will render an access bill to the customer for its portion of the service based on its access tariff or service guide rates and regulations. For switched access Multiple bills, the end office company is generally the Initial Billing Company (IBC).

The IBC is the company that calculates the access minutes to be billed to the customer and provides this data to each connecting company providing service, i.e., the Subsequent Billing Company(s). Each company, IBC and SBC, will:

- prepare its own bill;
- determine its charge(s) for Local Transport, Directory Transport, and/or Channel Mileage as set forth in (3) following;
- determine and include all recurring and nonrecurring rates and charges of its access tariff or service guide;
- reflect its Billing Account Reference (BAR) and all connecting company Billing Account Cross Reference (BACR) code(s);
- forward its bill to the customer.

The customer will remit payment directly to each Bill Rendering Company.

ACCESS SERVICE

2. General Regulations2.4 Payment Arrangements and Credit Allowances2.4.7 Access Services Provided by More Than One Company(A) Meet Point Billing (Cont'd)(3) Determination of Meet Point Billed Channel Mileage Charges

Each Company's portion of the Channel Mileage will be developed as follows:

- (a) Determine the appropriate Channel Mileage by computing the number of airline miles between the Company premises (serving wire centers for Special Access) using the V&H method set forth respectively in 7.2.5 following.
- (b) Determine the billing percentage (BP), as set forth in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, which represents the portion of the service provided by each Company.
- (c) For Special Access, multiply the number of airline miles, as set forth in (a) preceding, times the BP for each Company, as set forth in (b) preceding, times the Channel Mileage Facility rate and add the Channel Mileage Termination rate.

The Special Access Channel Mileage Termination rate and nonrecurring charges are applied as set forth in 7.2.1(B)(2) and 7.2.2(C) following. (Note: The BP is not applied to either the Channel Mileage Termination Recurring Rate or any Nonrecurring Charge.)

- (d) When three or more companies are involved in providing an Access Service, the intermediate Company(s) will determine the charges as set forth in (c) preceding.

Additionally, when a segment of the Channel Mileage Facility is measured to the intermediate office(s), the Channel Mileage Termination rates are also applied at the intermediate Company(s) office(s).

2.5 Connections

Equipment and Systems (i.e., terminal equipment, multiline terminating systems and communications systems) may be connected with Special Access and Public Packet Data Network Service furnished by the Company where such connection is made in accordance with the provisions specified in Technical Reference Publication AS No. 1 and in 2.1 preceding.

ACCESS SERVICE

2. General Regulations (Cont'd)2.6 Definitions

Certain terms used herein are defined as follows:

800 Data Base Access Service

The term "800 Data Base Access Service" denotes a service which uses a data base system to identify 800 access customers on a 10-digit basis. For purposes of administering the rules and regulations set forth in the service guide regarding the provision of 800 Database Access, except where otherwise specified, 800 Database Access Service shall include the following service access codes 800, 888, 877, 866, 855, 844, 833, and 822.

800 Series

The term 800 series denotes the service access codes of 800, 888, 877, 866, 855, 844, 833, and 822.

Access Code

The term "Access Code" denotes a uniform access code assigned by the Company to an individual customer in the form 10XXX or 101XXXX and 950-XXXX.

Access Minutes

For the purpose of calculating chargeable usage, the term "Access Minutes" denotes customer usage of exchange facilities in the provision of interstate or foreign service. On the originating end of an interstate or foreign call, usage is measured from the time the originating end user's call is delivered by the Company to and acknowledged as received by the customer's facilities connected with the originating exchange. On the terminating end of an interstate or foreign call, usage is measured from the time the call is received by the end user in the terminating exchange. Timing of usage at both originating and terminating ends of an interstate or foreign call shall terminate when the calling or called party disconnects, whichever event is recognized first in the originating and terminating exchanges, as applicable.

Access Tandem

The term "Access Tandem" denotes a Company or centralized equal access provider switching system that provides a concentration and distribution function for originating or terminating traffic between end offices and a customer designated premises.

Add/Drop Multiplexing

The term "Add/Drop Multiplexing" denotes a multiplexing function offered in connection with SONET that allows lower level signals to be added or dropped from a high speed optical carrier channel in a wire center. The connection to the add/drop multiplexer is via a channel to a Central Office Port at a specific digital speed (i.e., DS3, DS1, etc.).

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Answer/Disconnect Supervision

The term "Answer/Disconnect Supervision" denotes the transmission of the switch trunk equipment supervisory signal (off-hook or on-hook) to the customer's point of termination as an indication that the called party has answered or disconnected.

Asymmetric Digital Subscriber Line (ADSL)

The term "Asymmetric Digital Subscriber Line (ADSL)" denotes an access technology that allows voice and high speed data to be sent simultaneously over local exchange service facilities. ADSL supports data rates of up to 1.544 Mbps when receiving data (downstream rate) and up to 512 kbps when sending data (upstream rate).

Asynchronous Transfer Mode (ATM)

The term "Asynchronous Transfer Mode (ATM)" denotes a high speed networking technology that utilizes fixed-length cells. ATM is connection-oriented and provides traffic routing prioritization parameters which enable different types of traffic such as voice, data and video to be carried over the same network.

Attenuation Distortion

The term "Attenuation Distortion" denotes the difference in loss at specified frequencies relative to the loss at 1004 Hz, unless otherwise specified.

Balance (100 Type) Test Line

The term "Balance (100 Type) Test Line" denotes an arrangement in an end office which provides for balance and noise testing.

Bit

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

Business Data Services (BDS)

The dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections.

Business Day

The term "Business Day" denotes the times of day that a company is open for business. Generally, in the business community, these are 8:00 or 9:00 a.m. to 5:00 or 6:00 p.m., respectively, with an hour for lunch, Monday through Friday, resulting in a standard forty (40) hour work week. However, Business Day hours for the Company may vary based on company policy, union contract and location.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Busy Hour Minutes of Capacity (BHMC)

The term "Busy Hour Minutes of Capacity (BHMC)" denotes the customer specified maximum amount of Switched Access Service and/or Directory Assistance Service access minutes the customer expects to be handled in an end office switch during any hour in an 8:00 a.m. to 11:00 p.m. period for the Feature Group and/or Directory Assistance Service ordered. This customer specified BHMC quantity is the input data the Company uses to determine the number of transmission paths for the Feature Group and/or Directory Assistance Service ordered.

Call

The term "Call" denotes a customer attempt for which complete address information (e.g., 0-, 911, or 10 digits) is provided to the serving dial tone office.

Carrier or Common Carrier

See Interexchange Carrier.

CCS

The term "CCS" denotes a hundred call seconds, which is a standard unit of traffic load that is equal to 100 seconds of usage or capacity of a group of servers (e.g., trunks).

Cell

The term "Cell" denotes the fixed-length packet used to carry data across an Asynchronous Transfer Mode (ATM) network. A "Cell" consists of 53 bytes, five of which carry header information.

Central Office

See End Office.

Central Office Maintenance Technician

The term "Central Office Maintenance Technician" denotes a Company employee who performs installation and/or repair work, including testing and trouble isolation, within the Company Central Office.

Central Office Prefix

The term "Central Office Prefix" denotes the first three digits (NXX) of the seven digit telephone number assigned to a customer's Telephone Exchange Service when dialed on a local basis.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Channel(s)

The term "Channel(s)" denotes an electrical or photonic, in the case of fiber optic-based transmission systems, communications path between two or more points of termination.

Channel Service Unit

The term "Channel Service Unit" denotes equipment which performs one or more of the following functions: termination of a digital facility, regeneration of digital signals, detection and/or correction of signal format error, and remote loop back.

Channelize

The term "Channelize" denotes the process of multiplexing- demultiplexing wider bandwidth or higher speed channels into narrower bandwidth or lower speed channels.

C-Message Noise

The term "C-Message Noise" denotes the frequency weighted average noise within an idle voice channel. The frequency weighting, called C-message, is used to simulate the frequency characteristic of the 500-type telephone set and the hearing of the average subscriber.

C-Notched Noise

The term "C-Notched Noise" denotes the C-message frequency weighted noise on a voice channel with a holding tone, which is removed at the measuring end through a notch (very narrow band) filter.

Committed Information Rate

The term "Committed Information Rate" denotes the transmission speed specified by the customer at which the Frame Relay Access Service network commits to transfer data between two ports.

Common Channel Signaling

The term "Common Channel Signaling" (CCS) denotes a high speed packet switched communications network which is separate (out of band) from the public packet switched and message networks. Its purpose is to carry addressed signaling messages for individual trunk circuits and/or database related services between Signaling Points in the CCS network.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Common Line

The term "Common Line" denotes a line, trunk, pay telephone line or other facility provided under the local terms of service, general and/or local exchange service tariffs of the Company, terminated on a central office switch. A common line-residence is a line or trunk provided under the residence regulations of the local terms of service, general and/or local exchange service tariffs. A common line-business is a line provided under the business regulations of the local terms of service, general and/or local exchange service tariffs.

Communications System

The term "Communications System" denotes channels and other facilities which are capable of communications between terminal equipment provided by other than the Company.

Competitive Services

All packet-based business data services; circuit-based Business Data Services above the DS3 bandwidth level; transport services which includes interoffice facilities, channel terminations between the serving wire center and point of presence, and all sub-elements established for the use of these transport facilities; DS1 & DS3 End User Channel Terminations, and other Special Access Services, in any competitive serving wire center; DS1 & DS3 End User Channel Terminations, and other Special Access Services.

Customer(s)

The term "Customer(s)" denotes any individual, partnership, association, joint-stock company, trust, corporation, or governmental entity or other entity which subscribes to the services offered under this service guide, including both Interexchange Carriers (ICs) and End Users.

Customer Designated Premises

The term "Customer Designated Premises" denotes the premises specified by the customer for the provision of Access Service.

Customer Node

The term "Customer Node" denotes the equipment located at a customer designated premises that terminates a high speed optical channel.

Data Transmission (107 Type) Test Line

The term "Data Transmission (107 Type) Test Line" denotes an arrangement which provides for a connection to a signal source which provides test signals for one-way testing of data and voice transmission parameters.

Decibel

The term "Decibel" denotes a unit used to express relative difference in power, usually between acoustic or electric signals, equal to ten (10) times the common logarithm of the ratio of two signal powers.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Decibel Reference Noise C-Message Weighting

The term "Decibel Reference Noise C-Message Weighting" denotes noise power measurements with C-Message Weighting in decibels relative to a reference 1000 Hz tone of 90 dB below 1 milliwatt.

Decibel Reference Noise C-Message Referenced to 0

The term "Decibel Reference Noise C-Message Referenced to 0" denotes noise power in "Decibel Reference Noise C-Message Weighting" referred to or measured at a zero transmission level point.

Detail Billing

The term "Detail Billing" denotes the listing of each message and/or rate element for which charges to a customer are due on a bill prepared by the Company.

Digital Subscriber Line (DSL)

The term "Digital Subscriber Line (DSL)" denotes an access technology that allows simultaneous voice and high speed data to be sent over local exchange service facilities.

Digital Switched 56 Service

A switched access optional feature available with Feature Group C and Feature Group D Access, which provides for data transmission at up to 56 kilobits per second.

Direct-Trunked Transport

The term "Direct-Trunked Transport" denotes transport from the serving wire center to the end office or from the serving wire center to the access tandem on circuits dedicated to the use of a single customer.

Dual Tone Multi-frequency Address Signaling

The term "Dual Tone Multi-frequency Address Signaling" denotes a type of signaling that is an optional feature of Switched Access Feature Group A. It may be utilized when Feature Group A is being used in the terminating direction (from the point of termination with the customer to the local exchange end office). An office arranged for Dual Tone Multi-frequency Signaling would expect to receive address signals from the customer in the form of Dual Tone Multi-frequency signals.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Echo Control

The term "Echo Control" denotes the control of reflected signals in a telephone transmission path.

Echo Path Loss

The term "Echo Path Loss" denotes the measure of reflected signal at a 4-wire point of interface without regard to the send and receive Transmission Level Point.

Echo Return Loss

The term "Echo Return Loss" denotes a frequency weighted measure of return loss over the middle of the voiceband (approximately 500 to 2500 Hz), where talker echo is most annoying.

Effective 2-Wire

The term "Effective 2-Wire" denotes a condition which permits the simultaneous transmission in both directions over a channel, but it is not possible to insure independent information transmission in both directions. Effective 2-wire channels may be terminated with 2-wire or 4-wire interfaces.

Effective 4-Wire

The term "Effective 4-Wire" denotes a condition which permits the simultaneous independent transmission of information in both directions over a channel. The method of implementing effective 4-wire transmission is at the discretion of the Company (physical, time domain, frequency-domain separation or echo cancellation techniques). Effective 4-wire channels may be terminated with a 2-wire interface at the customer's premises. However, when terminated 2-wire, simultaneous independent transmission cannot be supported because the two wire interface combines the transmission paths into a single path.

End Office

The term "End Office" denotes a local Company switching system where Telephone Exchange Service customer station loops are terminated for purposes of interconnection to each other and to trunks. This term includes Remote Switching Modules/Systems served by a Host Central Office in a different wire center.

End User

The term "End User" means any customer of an interstate or foreign telecommunications service that is not a carrier, except that a carrier other than a Company shall be deemed to be an "end user" when such carrier uses a telecommunications service for administrative purposes, and a person or entity that offers telecommunications service exclusively as a reseller shall be deemed to be an "end user" if all resale transmissions offered by such reseller originate on the premises of such reseller.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Enhanced Service

The term "Enhanced Service", as defined in Part 64 of the F.C.C.'s Rules and Regulations, are services "...offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information."

Entrance Facility

The term "Entrance Facility" denotes a Switched Access Service dedicated Local Transport facility between the customer's serving wire center and the customer designated premises.

Entry Switch

See First Point of Switching.

Envelope Delay Distortion

The term "Envelope Delay Distortion" denotes a measure of the linearity of the phase versus frequency of a channel.

Equal Level Echo Path Loss

The term "Equal Level Echo Path Loss" (ELEPL) denotes the measure of Echo Path Loss (EPL) at a 4-wire interface which is corrected by the difference between the send and receive Transmission Level Point (TLP). [ELEPL = EPL - TLP (send) + TLP (receive)].

Ethernet

The term "Ethernet" denotes a high speed networking technology utilizing a packet-based Ethernet protocol. Ethernet enables broadband multimedia traffic (i.e., voice, data and video) to be carried over the same network.

Exchange

The term "Exchange" denotes a unit generally smaller than a local access and transport area, established by the Company for the administration of communications service in a specified area which usually embraces a city, town or village and its environs. It consists of one or more central offices together with the associated facilities used in furnishing communications service within that area. The exchange includes any Extended Area Service area that is an enlargement of a Company's exchange area to include nearby exchanges. One or more designated exchanges comprise a given local access and transport area.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Exit Message

The term "Exit Message" denotes an SS7 message sent to an end office by the Company's tandem switch to mark the Carrier Connect Time when the Company's tandem switch sends an Initial Address Message to an interexchange customer.

Expected Measured Loss

The term "Expected Measured Loss" denotes a calculated loss which specifies the end-to-end 1004-Hz loss on a terminated test connection between two readily accessible manual or remote test points. It is the sum of the inserted connection loss and test access loss including any test pads.

Extended Area Service

See Exchange.

Extended PVC

The term "Extended PVC" denotes the interconnection of a port on the Company's frame relay switch with a port on another interconnected Company's frame relay switch.

First Point of Switching

The term "First Point of Switching" denotes the first Company or centralized equal access provider location at which switching occurs on the terminating path of a call proceeding from the customer designated premises to the terminating end office and, at the same time, the last Company or centralized equal access provider location at which switching occurs on the originating path of a call proceeding from the originating end office to the customer designated premises.

Frame

The term "Frame" denotes a group of data bits in a specific format, which enables network equipment to recognize the meaning and purpose of the specific bits.

Frame Relay Access Customer Port

The term "Frame Relay Access Customer Port" denotes the physical location in the Company switching offices where the access customer's special access facility connects to the Company's Frame Relay Access Service network. It specifies how a frame relay switch sends and receives data from a frame relay access customer's network.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Frame Relay Access Service

The term "Frame Relay Access Service" denotes a medium-speed, connection-oriented packet-switched data service that allows for the interconnection of Local Area Networks or other compatible end user customer premises equipment for the purpose of connecting to an access customer's interstate network.

Frame Relay End User Port

The term "Frame Relay End User Port" denotes the physical location in the Company switching office where the special access facility of the customer connects to the Frame Relay Access Service Network. It receives the data frame from the end user customer's Local Area Network or other compatible CPE devices and verifies that the end user connection and the corresponding access customer connection are valid before relaying the frame to the destination end point.

Frequency Shift

The term "Frequency Shift" denotes the change in the frequency of a tone as it is transmitted over a channel.

Grandfathered

The term "Grandfathered" denotes Terminal Equipment, Multiline Terminating Systems and Protective Circuitry directly connected to the facilities utilized to provide services under the provisions of this service guide, and which are considered grandfathered under Part 68 of the F.C.C.'s Rules and Regulations.

Host Central Office

The term "Host Central Office" denotes an electronic local Company End Office where Telephone Exchange Service customer station loops are terminated for purposes of interconnection to each other and to trunks. Additionally, this type of End Office contains the central call processing functions which service itself and its Remote Switching Modules/Systems.

Hub

The term "Hub" denotes a wire center at which bridging or multiplexing functions are performed for customers served out of any wire center.

Immediately Available Funds

The term "Immediately Available Funds" denotes a corporate or personal check drawn on a bank account and funds which are available for use by the receiving party on the same day on which they are received and include U.S. Federal Reserve bank wire transfers, U.S. Federal Reserve notes (paper cash), U.S. coins, U.S. Postal Money Orders and New York Certificates of Deposit.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Impedance Balance

The term "Impedance Balance" denotes the method of expressing Echo Return Loss and Singing Return Loss at a 4-wire interface whereby the gains and/or loss of the 4-wire portion of the transmission path, including the hybrid, are not included in the specification.

Impulse Noise

The term "Impulse Noise" denotes any momentary occurrence of the noise on a channel over a specified level threshold. It is evaluated by counting the number of occurrences which exceed the threshold.

Individual Case Basis

The term "Individual Case Basis" denotes a condition in which the regulations, if applicable, rates and charges for an offering under the provisions of this service guide are developed based on the circumstances in each case.

Initial Address Message

The term "Initial Address Message" denotes an SS7 message sent in the forward direction to initiate trunk set up, reserve an outgoing trunk and process the information about that trunk along with other data relating to the routing and handling of the call to the next switch.

Inserted Connection Loss

The term "Inserted Connection Loss" denotes the 1004 Hz power difference (in dB) between the maximum power available at the originating end and the actual power reaching the terminating end through the inserted connection.

Installation and Repair Technician

The term "Installation and Repair Technician" denotes a Company employee who performs installation and/or repair work, including testing and trouble isolation, outside of the Company Central Office and generally at the customer designated premises.

Interexchange Carrier (IC) or Interexchange Common Carrier

The terms "Interexchange Carrier" (IC) or "Interexchange Common Carrier" denotes any individual, partnership, association, joint-stock company, trust, governmental entity or corporation engaged for hire in interstate or foreign communication by wire or radio, between two or more exchanges.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Intermediate Hub

The term "Intermediate Hub" denotes a wire center at which bridging or multiplexing functions are performed only for customers served by that wire center and wire centers that subtend the hub, as specified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Intermodulation Distortion

The term "Intermodulation Distortion" denotes a measure of the nonlinearity of a channel. It is measured using four tones, and evaluating the ratios (in dB) of the transmitted composite four-tone signal power to the second-order products of the tones (R2), and the third-order products of the tones (R3).

Interstate Communications

The term "Interstate Communications" denotes both interstate and foreign communications.

Intrastate Communications

The term "Intrastate Communications" denotes any communications within a state subject to oversight by a state regulatory commission as provided by the laws of the state involved.

Legal Holiday

The term "Legal Holiday" denotes days other than Saturday or Sunday for which the Company is normally closed. These include New Year's Day, Independence Day, Thanksgiving Day, Christmas Day and a day when Washington's Birthday, Memorial Day or Columbus Day is legally observed and other locally observed holidays when the Company is closed.

Line Side Connection

The term "Line Side Connection" denotes a connection of a transmission path to the line side of a local exchange switching system.

Local Access and Transport Area (LATA)

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

Local Area Network

The term "Local Area Network" denotes a network permitting the interconnection and intercommunication of a group of computers.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Loss Deviation

The term "Loss Deviation" denotes the variation of the actual loss from the designed value.

Major Fraction Thereof

The term "Major Fraction Thereof" denotes any period of time in excess of 1/2 of the stated amount of time. As an example, in considering a period of 24 hours, a major fraction thereof would be any period of time in excess of 12 hours exactly. Therefore, if a given service is interrupted for a period of thirty-six hours and fifteen minutes, the customer would be given a credit allowance for two twenty-four hour periods for a total of forty-eight hours.

Message

The term "Message" denotes a "call" as defined preceding.

Milliwatt (102 Type) Test Line

The term "Milliwatt (102 Type) Test Line" denotes an arrangement in an end office which provides a 1004 Hz tone at 0 dBm0 for one-way transmission measurements towards the customer's premises from the Company end office.

Network Control Signaling

The term "Network Control Signaling" denotes the transmission of signals used in the telecommunications system which perform functions such as supervision (control, status, and charge signals), address signaling (e.g., dialing), calling and called number identifications, rate of flow, service selection error control and audible tone signals (call progress signals indicating re-order or busy conditions, alerting, coin denominations, coin collect and coin return tones) to control the operation of the telecommunications system.

Non-Competitive Serving Wire Center

A Company Serving Wire Center that has not met the Competitive Market Test as established by the FCC's BDS Order (17-43) on April 28, 2017 at §69.803.

Nonsynchronous Test Line

The term "Nonsynchronous Test Line" denotes an arrangement in step-by-step end offices which provides operational tests which are not as complete as those provided by the synchronous test lines, but can be made more rapidly.

North American Numbering Plan

The term "North American Numbering Plan" denotes a three-digit area code (Numbering Plan Area - NPA) and a seven-digit telephone number made up of a three-digit Central Office prefix plus a four-digit station number.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Off-hook

The term "Off-hook" denotes the active condition of Switched Access or a Telephone Exchange Service line.

On-hook

The term "On-hook" denotes the idle condition of Switched Access or a Telephone Exchange Service line.

Open Circuit Test Line

The term "Open Circuit Test Line" denotes an arrangement in an end office which provides an ac open circuit termination of a trunk or line by means of an inductor of several Henries.

Optical Carrier Channel

The term "Optical Carrier Channel" denotes the high speed optical communication path for transporting information utilizing a Synchronous Optical Channel Platform. The channel is provided at transmission rates of 155.52 Mbps (OC3), 622.08 Mbps (OC12), and 2.4 Gbps (OC 48).

Optical Carrier Rate (OC-N)

The term "Optical Carrier Rate" denotes the line rate being transmitted on an optical carrier channel. A SONET transmission rate is equivalent to "N" times the OC1 line rate of 51.84 Mbps. OC# rate bandwidth capacity is 155.52 Mbps for OC3, 622.08 Mbps for OC12, 2488.32 Mbps for OC48 and 9953.28 Mbps for OC192.

Optical Carrier Rate Concatenated (OC#c)

The term "Optical Carrier Rate Concatenated" denotes a clear channel SONET transmission using only one framing format. For example, an OC3 signal provides three STS1 frame formats with 3 overheads for a total capacity of 2322 bytes per Synchronous Payload Envelope (SPE); in an OC3c signal, one STS3c frame format is used with one overhead, increasing the total payload capacity to 2340 bytes per SPE.

Optical Line Termination

The term "Optical Line Termination" denotes the network interface on the customer designated premises equipment that provides the optical handoff.

Originating Direction

The term "Originating Direction" denotes the use of access service for the origination of calls from an End User Premises to an IC Premises.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Pay Telephone

The term "Pay Telephone" denotes a coin or coin less instrument provided in a public or semipublic place where Payphone Service Provider customers can originate telephonic communications and pay the applicable charges by (1) inserting coins into the equipment, or (2) using a credit card, or (3) third party billing the call or (4) calling collect.

Payphone Service Provider

The term "Payphone Service Provider" denotes an entity that provides pay telephone service, which is the provision of public, semi-public or inmate pay telephone service.

Permanent Virtual Connection (PVC)

The term "PVC" denotes a software defined communications path between two port connections within the Frame Relay Access Service network.

Phase Jitter

The term "Phase Jitter" denotes the unwanted phase variations of a signal.

Point of Termination

The term "Point of Termination" denotes the point of demarcation within a customer-designated premises at which the Company's responsibility for the provision of Access Service ends.

Premises

The term "Premises" denotes a building or buildings on continuous property (except Railroad Right-of-Way, etc.) not separated by a public highway.

Release Message

The term "Release Message" denotes an SS7 message sent in either direction to indicate that a specific circuit is being released.

Remote Switching Modules/Systems

The term "Remote Switching Modules/Systems" denotes small, remotely controlled electronic end office switches which obtain their call processing capability from an electronic Host Central Office. The Remote Switching Modules/Systems cannot accommodate direct trunks to an IC.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Return Loss

The term "Return Loss" denotes a measure of the similarity between the two impedances at the junction of two transmission paths. The higher the return loss, the higher the similarity.

Registered Equipment

The term "Registered Equipment" denotes the customer's premises equipment which complies with and has been approved within the Registration Provisions of Part 68 of the F.C.C.'s Rules and Regulations.

Service Access Code

The term "Service Access Code" denotes a 3 digit code in the NPA format which is used as the first three digits of a 10 digit address and which is assigned for special network uses. Whereas NPA codes are normally used for identifying specific geographical areas, certain Service Access Codes have been allocated in the North American Numbering Plan to identify generic services or to provide access capability. Examples of Service Access Codes include the 800 and 900 codes.

Service Switching Point (SSP)

The term "Service Switching Point" denotes an end office or tandem which, in addition to having SS7 and SP capabilities, is also equipped to query centralized data bases.

Serving Wire Center

The term "Serving Wire Center" denotes the wire center from which the customer designated premises would normally obtain dial tone from the Company.

Seven Digit Manual Test Line

The term "Seven Digit Manual Test Line" denotes an arrangement which allows the Customer to select balance, milliwatt and synchronous test lines by manually dialing a seven digit number over the associated access connection.

Shortage of Facilities or Equipment

The term "Shortage of Facilities or Equipment" denotes a condition which occurs when the Company does not have appropriate cable, switching capacity, bridging or, multiplexing equipment, etc., necessary to provide the Access Service requested by the customer.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Short Circuit Test Line

The term "Short Circuit Test Line" denotes an arrangement in an end office which provides for an ac short circuit termination of a trunk or line by means of a capacitor of at least four microfarads.

Signal-to-C-Notched Noise Ratio

The term "Signal-to-C-Notched Noise Ratio" denotes the ratio in dB of a test signal to the corresponding C-Notched Noise.

Signaling Point (SP)

The term "Signaling Point (SP)" denotes an SS7 network interface element capable of originating and terminating SS7 trunk signaling messages.

Signaling Point of Interface (SPOI)

The term "Signaling Point of Interface (SPOI)" denotes the customer designated location where the SS7 signaling information is exchanged between the Company and the customer.

Signaling Return Loss

The term "Signaling Return Loss" denotes the frequency weighted measure of return loss at the edges of the voiceband (200 to 500 Hz and 2500 to 3200 Hz), where signing (instability) problems are most likely to occur.

Signaling System 7 (SS7)

The term "Signaling System 7 (SS7)" denotes the layered protocol used for standardized common channel signaling in the United States and Puerto Rico.

Signal Transfer Point (STP)

The term "Signal Transfer Point (STP)" denotes a packet switch which provides access to the Company's SS7 network and performs SS7 message signal routing and screening.

Signal Transfer Point (STP) Port

The term "Signal Transfer Point (STP) Port" denotes the point of termination and interconnection to the STP.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Standard PVC

The term "Standard PVC" denotes the interconnection of ports on the same frame relay switch.

Subtending End Office of an Access Tandem

The term "Subtending End Office of an Access Tandem" denotes an end office that has final trunk group routing through that tandem.

Super Intermediate Hub

The term "Super Intermediate Hub" denotes a wire center at which bridging or multiplexing functions are performed for Customers served by all wire centers in the LATA. A Super Intermediate Hub can be restricted to one or more designated NPAs within a LATA and/or to wire centers that are owned by the same Company as the hub. Super Intermediate Hubs and the wire centers they serve are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Synchronous Optical Network (SONET)

The term "SONET" denotes a North American Standard for high speed synchronous optical channels having minimum transmission rates of 51.84 Mbps. The standard SONET optical carrier rate of 51.84 Mbps is called OC1; the equivalent electrical signal rate is called STS-1. SONET standardizes higher transmission bit rates, "OCN", as exact multiples of OC1 ($N \times 51.84$ Mbps). For example, OC3 equals 3×51.84 Mbps.

Synchronous Test Line

The term "Synchronous Test Line" denotes an arrangement in an end office which performs marginal operational tests of supervisory and ring-tripping functions.

Synchronous Transport Signal

The term "Synchronous Transport Signal" denotes 51.84 Mbps electrical signal used within the SONET optical carrier network. The signal consists of the information content and the overhead used by SONET. The overhead is used for controlling, framing and maintaining the STS signal so it can be directly connected to other SONET carrier channels. STS signals are in exact multiples of 51.84 Mbps (STS-1 is 51.84 Mbps, STS-3 is 155.52 Mbps, etc.).

Tandem Switched Transport

The term "Tandem Switched Transport" denotes transport from the tandem to the end office, that is switched at a tandem.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Terminating Direction

The term "Terminating Direction" denotes the use of Access Service for the completion of calls from an IC premises to an End User Premises.

Terminus Hub

The term "Terminus Hub" denotes a wire center at which bridging or multiplexing functions are performed only for Customers served directly by the same wire center.

Throughput

The term "Throughput" denotes the number of data bits successfully transferred in one direction per unit of time.

Toll VoIP-PSTN Traffic

The term "Toll VoIP-PSTN Traffic" denotes a customer's interexchange voice traffic exchanged with the Company in Time Division Multiplexing format over PSTN facilities, which originates and/or terminates in Internet Protocol (IP) format. "Toll VoIP-PSTN Traffic" originates and/or terminates in IP format when it originates from and/or terminates to an end user customer of a service that requires IP-compatible customer premises equipment.

Transmission Measuring (105 Type) Test Line/Responder

The term "Transmission Measuring (105 Type) Test Line/ Responder" denotes an arrangement in an end office which provides far-end access to a responder and permits two-way loss and noise measurements to be made on trunks from a near end office

Transmission Path

The term "Transmission Path" denotes an electrical path capable of transmitting signals within the range of the service offering, e.g., a voice grade transmission path is capable of transmitting voice frequencies within the approximate range of 300 to 3000 Hz. A transmission path is comprised of physical or derived facilities consisting of any form or configuration of plant typically used in the telecommunications industry.

Trunk

The term "Trunk" denotes a communications path connecting two switching systems in a network, used in the establishment of an end-to-end connection.

Trunk Group

The term "Trunk Group" denotes a set of trunks which are traffic engineered as a unit for the establishment of connections between switching systems in which all of the communications paths are interchangeable.

ACCESS SERVICE

2. General Regulations2.6 Definitions (Cont'd)Trunk Side Connection

The term "Trunk Side Connection" denotes the connection of a transmission path to the trunk side of a local exchange switching system.

Two-Wire to Four-Wire Conversion

The term "Two-Wire to Four-Wire Conversion" denotes an arrangement which converts a four-wire transmission path to a two-wire transmission path to allow a four-wire facility to terminate in a two-wire entity (e.g., a central office switch).

V and H Coordinates Method

The term "V and H Coordinates Method" denotes a method of computing airline miles between two points by utilizing an established formula which is based on the vertical and horizontal coordinates of the two points.

WATS Serving Office

The term "WATS Serving Office" denotes a Company designated serving wire center where switching, screening and/or recording functions are performed in connection with the closed-end of WATS or WATS-type services.

Wireless Switching Center

The term "Wireless Switching Center" (WSC) denotes a Wireless Service Provider (WSP) switching system that is used to terminate wireless stations for purposes of interconnection to each other and to trunks interfacing with the public switched network.

Wire Center

The term "Wire Center" denotes a building in which one or more central offices, used for the provision of Telephone Exchange Services, are located.

ACCESS SERVICE

3. Federal Universal Service Charge

Sections 3.1 through Section 3.8 are reserved for future use.

3.9 Federal Universal Service Charge

The Federal Universal Service Charge (FUSC) recovers the Company's contribution to various federal universal service funds. The Company will apply a surcharge factor each month to the billed charges for interstate access services provided to end users from this service guide. FUSC will not apply to any billed charges for an end user when the interstate access service provided to the end user qualifies under the federal universal service guidelines for the Lifeline Assistance Program. FUSC will not apply to interstate access services purchased by customers that resell these services to end users as part of an interstate telecommunications service and are required to contribute to the various federal universal service funds. In case of a dispute regarding whether the customer is reselling services and contributing to the various federal universal service funds, the Company may request a signed certification to that effect from the customer.

The FCC Contribution factor is subject to change quarterly. The current factor can be found at:

<http://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>

ACCESS SERVICE

4. Reserved For Future Use

ACCESS SERVICE

5. Access Ordering5.1 General

This section sets forth the regulations and order related charges for services set forth in other sections of this service guide. Order related charges are in addition to other applicable charges for the services provided.

An Access Order is an order to provide the customer with Special Access, Public Packet Data Network or Access Related Service or to provide changes to existing services.

The regulations, rates and charges for special construction are set forth in Brightspeed Local Operating Companies Tariff F.C.C. No. 5 and are in addition to the regulations, rates and charges specified in this section.

A customer may order any number of services of the same type and between the same premises on a single Access Order. All details for services for a particular order must be identical except for those for multipoint service.

The customer shall provide to the Company the order information required in 5.2 following, and in addition the customer must also provide:

- Customer name and premises address(es).
- Billing name and address (when different from customer name and address).
- Customer contact name(s) and telephone number(s) for the following provisioning activities: order negotiation, order confirmation, interactive design, installation and billing.

5.1.1 Service Installation

The Company will provide the Access Service in accordance with the customer's requested service date, subject to the constraints established by the Company schedule of applicable service dates.

The Company shall make available to all customers, upon request, a schedule of applicable service intervals for Special Access and Public Packet Data Network Services. The schedule shall specify the applicable service interval for services and the quantities of services that can be provided by a requested service date. Any associated material will be provided upon request and within a reasonable period of time.

The Company will not accept orders for service dates which exceed the applicable service date by more than six months.

Access Services will be installed during Company business days. If a customer requests that installation be done outside of scheduled work hours, and the Company agrees to this request, the customer will be subject to applicable Additional Labor Charges as set forth in 17.1.5(A) following.

ACCESS SERVICE

5. Access Ordering5.1 General (Cont'd)5.1.2 Expedited Order Charge

An Expedited Order Charge will apply when a customer requests a service date that is earlier than the standard interval date:

If the company agrees to provide the service on an expedited basis, an expedited order charge will apply.

The request for an earlier service date may be received from the customer prior to the issuance of an access order, or after the access order has been issued but prior to the service date. When the request for expediting occurs subsequent to the issuance of the Access Order, a Service Date Change Charge as set forth in rate sections following also applies.

If the Company is subsequently unable to meet an agreed upon expedited service date, no Expedited Order Charge will apply unless the missed service date was caused by the customer.

In the event the customer cancels an expedited access order, the Expedited Order Charge will apply in addition to cancellation charges as described in 5.5.3 following.

An Expedited Order Charge will not apply to access service orders expedited for Company reasons.

The Expedited Order Charge will apply per access order, per business day improved from the standard interval date to the in-service date. The rate for an Expedited Order Charge is set forth in Section 17.1.5 (E) following.

5.1.3 Selection of Facilities for Access Orders

The option to request a specific transmission path or channel is only provided for Special Access, or as provided for under Special Facilities Routing as set forth in Section 11 following.

When there are facilities to a hub on order or in service for the customer's use, the customer may request a specific channel or transmission path be used to provide the Special Access Service requested in an Access Order. The Company will make a reasonable effort to accommodate the customer request.

ACCESS SERVICE

5. Access Ordering5.2 Ordering Requirements5.2.1 Reserved for Future Use5.2.2 Special Access Service

When placing an order for Special Access Service the customer must specify:

- the customer designated premises or hubs or ADM equipped wire centers involved
- type of service (e.g., Voice Grade, High Capacity, SONET, OC Ring, etc.);
- the channel interface(s)
- technical specification package
- options desired
- for multipoint services, the channel interface at each customer designated premises may, at the request of the customer, be different but all such interfaces shall be compatible
- that the traffic consists of more than ten percent interstate traffic.

All part-time Program Audio services are subject to a service inquiry. A service inquiry is a request to the Telephone Company to determine if facilities exist to provide the service ordered and to determine the service date on which service can be provided to the customer.

Where the Special Access Service is exempt from the Special Access Surcharge, as set forth in 7.3 following the customer shall furnish written certification to that effect as set forth in 7.3.3 following.

When ordering bridging and/or multiplexing, the Customer must specify the company hub(s) from which they desire service. The Customer must specify only those hubs that provide the type of service ordered and interconnect with the wire center(s) from which the customer requires service. The Wire Center section of National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 identifies hub types and multiplexing functions (e.g., Add/Drop Multiplexing) as well as hub levels (i.e., Hub, Terminus Hub, Intermediate Hub and Super-Intermediate Hub). Additionally, the Subtending section of Tariff F.C.C. No. 4 identifies wire centers and the Intermediate and/or Super-Intermediate Hubs with which they interconnect.

There is a Special Access Optional Rate Plan for Synchronous Optical Channel Service. The Synchronous Optical Channel Service Optional Rate Plan is a Term Discount plan. When ordering a Synchronous Optical Channel Service Term Discount Optional Rate Plan, or an upgrade to the plan, discontinuance charges, as specified in 7.2.8 following, will not apply if the conditions set forth in the following are met:

ACCESS SERVICE

5. Access Ordering5.2 Ordering Requirements5.2.2 Special Access Service (Cont'd)

Term Discounts - Upgrades in Capacity (DS1 to DS3 and OC3/OC3C to OC12 and/or OC48)

- The customer's order for the disconnection of the existing DS1 Service or OC3/OC3C/OC12 Service and the installation of the new DS3 Service or OC12/OC48 Service are received at the same time and specifically reference the application of upgrade in capacity.
- The customer's disconnect order for the existing DS1 or OC3/OC3C/OC12 Service must reference the DS3 or OC3/OC3C/OC12/OC48 Service installation order.

Customer orders to install and disconnect DS1, DS3, OC3/OC3C or OC12 services provided under a Term Discount Plan where the number of DS1s, DS3s, OC3/OC3C or OC12s remains constant and the customer wishes to maintain the existing Term Discount period and minimum service period must:

- Be received at the same time.
- Reference continuation of the existing Term Discount period and the minimum service period on both the installation and disconnect orders.

5.2.3 WATS or WATS-Type Services

Special Access Service may be ordered for connection with FGA, FGB, FGC or FGD Switched Access Service at Telephone Company designated WATS Serving Offices (WSOs) for the provision of WATS or WATS-type Services and may be ordered separately by a customer other than the customer which orders the FGA, FGB, FGC or FGD Switched Access Service. For the Special Access Service the customer shall specify:

- the customer designated premises at which the Special Access service terminates
- the type of line (i.e., two-wire or four-wire)
- the type of calling (i.e., originating, terminating or two-way)
- type of Supervisory Signaling.

When the optional screening, switching and/or recording functions are not provided at the customer serving wire center, Channel Mileage, as set forth in 7.2.1 following, must be ordered between that wire center and the nearest WSO where the screening, switching and/or recording functions can be provided.

5.2.4 Mixed Use Facilities - Switched and Special Access

Mixed use is the provision of both Switched and Special Access Services over the same Synchronous Optical Channel facilities. Mixed use facilities to a hub or ADM equipped wire center will be ordered and provided as Special Access Service. Where mixed use is employed, individual services utilizing these facilities must be ordered either as Switched Access Service as set forth in Brightspeed Local Operating Companies Tariff F.C.C. No. 8 or Special Access Service as further elaborated and set forth in 7.2.7 following. When placing the order for the individual service(s), the customer must specify a channel assignment for each service ordered.

ACCESS SERVICE

5. Access Ordering5.2 Ordering Requirements (Cont'd)5.2.5 Miscellaneous Services

Testing Service, Additional Labor, Telecommunications Service Priority and Special Facilities Routing shall be ordered with an Access Order or may subsequently be added to a pending order at any time up to and including the service date for the access service. When miscellaneous services are added to a pending order a service date change may be required. When a service date change is required, the service date change charge as set forth in 17.1.5(B) following will apply. When miscellaneous services are added to a pending order, charges for a design change as set forth in 17.1.5(C) following will apply when an engineering review is required. If both a service date change and an engineering review are required, both the Service Date Change Charge and the Design Change Charge will apply as set forth in 5.4.3(B) following.

The rates and charges for these services, as set forth in Section 17 of this service guide, will apply in addition to the ordering charges set forth in Section 17, and the rates and charges for the Access Service with which they are associated.

Additional Engineering is not an ordering option, but will be applied to an Access Order when the Company determines that Additional Engineering is necessary to accommodate a customer request. Additional Engineering will only be required as set forth in 13.1 following. When it is required, the customer will be so notified and will be furnished with a written statement setting forth the justification for the Additional Engineering as well as an estimate of the charges. If the customer agrees to the Additional Engineering, a firm order will be established. If the customer does not want the service or facilities after being notified that Additional Engineering of Company facilities is required, the order will be withdrawn and no charges will apply. Once a firm order has been established, the total charge to the customer for the Additional Engineering may not exceed the estimated amount by more than 10%.

ACCESS SERVICE

5. Access Ordering5.2 Ordering Requirements (Cont'd)5.2.6 Frame Relay Access Service

Effective June 1, 2015, Frame Relay Access Service will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their Frame Relay Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their Frame Relay Service covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

5.2.7 Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS)

Effective June 1, 2015, ATM-CRS will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their ATM-CRS Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their ATM-CRS covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

ACCESS SERVICE

5. Access Ordering (Cont'd)5.3 Access Orders For Services Provided By More Than One Company

Access Services provided by more than one Company are services where one end of the Local Transport, Direct Transport or Channel Mileage element is in the operating territory of one Company and the other end of the element is in the operating territory of a different Company or where the Interim NXX Translation service and the end office are not provided by the same Company.

The ordering procedure for this service is dependent upon the billing arrangement, as set forth in 2.4.7, preceding, to be used by the Companies involved in providing the Access Service. The Company will notify the customer which of the ordering procedures will apply.

5.3.1 Reserved for Future Use

ACCESS SERVICE

5. Access Ordering5.3 Access Orders For Services Provided By More Than One Company (Cont'd)5.3.2 Meet Point Billing Ordering

Each company will provide its portion of the Access Service within its operating territory to an interconnection point(s) with the other company(s). Billing Percentages will be determined by the companies involved in providing the Access Service and listed in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. Each company will bill the customer for its portion of the service as set forth in 2.4.7. All other appropriate charges in each company tariff or service guide are applicable.

For the service(s) ordered as set forth following, the customer must also supply a copy of the order to the company in whose operating territory a customer designated premises is located and any other company(s) involved in providing the service. Additionally, when service is provided through a centralized equal access provider, the customer must supply a copy of the order to that provider.

- (A) Reserved For Future Use
- (B) Except for Special Access Service as set forth in (C) above or as set forth in (E) below, the customer may place the order for a Special Access Service with either Exchange Company.
- (C) For Special Access Service involving a hub(s) the customer must place the order with the company(s) in whose territory the hub(s) is located.
- (D) For a Special Access Service connection to a frame relay network, the customer must place the order with the company that provides the frame relay switch. Special Access Service in this situation must be ordered to the wire center equipped with a frame relay switch.
- (E) For Special Access Service used in conjunction with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS), the customer must place the order with each Company that provides an ATM-CRS Port connection.
- (F) For Special Access Service used in conjunction with Ethernet Transport Service (ETS), the customer must place the order with each Company that provides an ETS Port connection.
- (G) For Special Access used in conjunction with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS), the customer must place the order with each Company that provides an ATM-CRS Port Connection.

ACCESS SERVICE

5. Access Ordering (Cont'd)5.4 Charges Associated with Access Ordering5.4.1 Access Order Charge

The Access Order Charge is applied to all customer requests for new Special Access and Public Packet Data Network. In addition, the Access Order Charge is applicable to customer requests for additions, changes or rearrangements to existing Special Access and Public Packet Data Network, with the following exceptions:

The Access Order Charge does not apply:

- When a Service Date Change Charge is applicable;
- When a Design Change Charge is applicable;
- To administrative changes as set forth in 7.2.2(C)(3), 16.1.2(B)(2)(b), and 16.2.4(B)(2)(b), following;
- When a change to a pending order does not result in the cancellation of the pending order and the issuance of a new order;
- When a Miscellaneous Service Order Charge is applicable;
- When a Company-initiated network reconfiguration requires a customer's existing access service to be reconfigured.
- When a service with an ICB rate is converted to a similar service with a non-ICB rate prior to the expiration of the ICB.
- When a Billing Name and Address Order charge is applicable.
- When a customer with a Special Access DS3 Capacity Discount converts to Special Access Synchronous Optical Channel Service.
- When an ATM-CRS MM-VCC Design Change Charge is applicable.
- When an ETS Design Change Charge is applicable.
- When an ATM-CRS customer establishes a new ATM-CRS Term Discount Plan or makes changes to an existing ATM-CRS Term Discount Plan.
- When an ETS customer establishes a new ETS Term Discount Plan or makes changes to an existing ETS Term Discount Plan.

The Access Order Charge will be applied on a per order basis to each order received by the Company or copy of an order received by the Company pursuant to 5.3.2 preceding, and is in addition to other applicable charges as set forth in this and other sections of this service guide.

ACCESS SERVICE

5. Access Ordering5.4 Charges Associated with Access Ordering (Cont'd)5.4.2 Miscellaneous Service Order Charge

A Miscellaneous Service Order Charge, as set forth in Section 17, following, applies to any service, or combination of services, ordered simultaneously from Section 13 of the service guide for which a service order is not already pending (with the exception of Billing Name and Address Service which does not have the charge applied). The Miscellaneous Service Order Charge is an administrative charge designed to compensate for the expenses associated with service order issuance.

The charge always applies to the following services since a pending service order would not exist:

- Overtime Repair (Section 13),
- Standby Repair (Section 13),
- Testing and Maintenance with Other Companies other than when in conjunction with Acceptance Testing (Section 13),
- Other Labor (Section 13),
- Maintenance of Service (Section 13).

The Miscellaneous Service Order Charge will also apply to the following services if they are ordered subsequent to the initial installation of the associated access service, thereby necessitating the issuance of another service order:

- Telecommunications Service Priority (Section 13),

The charge does not apply to the following services since there would exist a pending service order:

- Additional Engineering (Section 13),
- Overtime Installation (Section 13),
- Standby Acceptance Testing (Section 13),
- Testing and Maintenance with Other Companies when in conjunction with Acceptance Testing (Section 13),
- Additional Cooperative Acceptance Testing (Section 13).

ACCESS SERVICE

5. Access Ordering5.4 Charges Associated with Access Ordering (Cont'd)5.4.3 Access Order Change Charges

Access Order changes involve service date changes and design changes. The customer may request a change of its Access Order prior to the service date. The Company will make every effort to accommodate a requested change when it is able to do so with the normal work force assigned to complete such an order within normal business hours. If the change cannot be made with the normal work force during normal business hours, the Company will notify the customer. If the customer still desires the Access Order change, the Company will schedule a new service date as set forth in 5.1.2 preceding. All charges for Access Order change as set forth in Section 17, following will apply on a per occurrence basis.

Any increase in the number of Special Access Service channels or Switched Access Service lines, trunks, busy hour minutes of capacity or Frame Relay Ports and/or PVCs or CCS/SS7 Port Terminations, or ATM-CDS Ports, Virtual Paths or Virtual Circuit Channels will be treated as a new Access Order (for the increased amount only).

If order changes are necessary to satisfy the transmission performance for a Special Access Service ordered by a customer, these changes

(A) Service Date Change

The customer may request a change of service date on a pending Access Order prior to the service date. A change of service date is a change of the scheduled service date by the customer to either an earlier date or a later date which does not exceed 60 calendar days from the original service date.

If the Company determines that the customer's request can be accommodated without delaying the service dates for orders of other customers, the service date will be changed and the Service Date Change Charge as set forth in Section 17 following, will be applied to the order.

If the service date is changed to an earlier date the customer will be notified by the Company that Expedited Order Charges as set forth in 5.1.2 preceding apply. Such charges will apply in addition to the Service Date Change Charge.

If the requested service date exceeds 60 calendar days following the original service date, and the Company determines that the customer's request can be accommodated, the Company will cancel the original order and apply the Cancellation Charges as set forth in 5.5.3 following. A new Access Order with a new service date will be issued. The Service Date Change Charge will not apply, however, the Access Order Charge will apply to the new order.

If the service date is changed due to a design change as set forth in (B) following, the Service Date Change Charge will apply.

ACCESS SERVICE

5. Access Ordering5.4 Charges Associated with Access Ordering5.4.3 Access Order Change Charges (Cont'd)(B) Design Change

The customer may request a design change to the service ordered prior to the requested service date. A design change is any change to an Access Order which requires engineering review. An engineering review is a review by Company personnel, of the service ordered and the requested changes to determine what changes in the design, if any, are necessary to meet the changes requested by the customer. Design changes include such things as the addition or deletion of optional features or functions, type of channel interface, type of Interface Group or technical specification package, or a change in the destination or speed of Frame Relay Access Service Permanent Virtual Connection or an Asynchronous Transfer Mode Cell Relay Access Service Virtual Path. Design changes do not include a change of customer designated premises or Special Access Service channel type. Changes of this nature will require the issuance of a new order and the cancellation of the original order with appropriate cancellation charges applied.

The Company will review the requested change, notify the customer whether the change is a design change, if the change can be accommodated and if a new service date is required. If the customer authorizes the Company to proceed with the design change, a Design Change Charge as set forth in Section 17, following will apply in addition to the charge for Additional Engineering as set forth in Section 17 following. If a change of service date is required, the Service Date Change Charge as set forth in Section 17 following will also apply. The Access Order Charge as specified in 17.1.5 following does not apply.

ACCESS SERVICE

5. Access Ordering (Cont'd)5.5 Minimum Periods and Cancellations5.5.1 Minimum Periods

The minimum period for part-time Program Audio Special Access Services is one day even though the service will be provided only for the duration of the event specified on the order (e.g., one-half hour, two hours, five hours, etc.).

The minimum period for Synchronous Optical Channel Special Access Services and the Frame Relay Access Service 1.544 Mbps Port is as set forth in 7.2.8 following. The minimum period for Asynchronous Transfer Mode Cell Relay Access Service is set forth in Section 16.2.4 (C), following. The minimum period for High Capacity DS1 and DS3 Special Access Services is as set forth in 7.2.4, following.

The minimum period for which all other Access Service is provided and for which charges are applicable is one month.

5.5.2 Development of Minimum Period Charges

When Access Service is disconnected after commencement of service, but prior to the expiration of the minimum period, charges are applicable for the balance of the minimum period. A disconnect constitutes facilities being returned to available inventory.

The Minimum Period Charge for monthly billed services will be determined as follows:

(A) Reserved For Future Use

(B) For Special Access Service and Public Packet Data Network Service the charge for a month or fraction thereof is the applicable monthly rates for the appropriate channel type plus any optional features, nonrecurring and/or special construction charge(s) that may apply.

Minimum Service Period requirements apply to all DS1 and DS3 services. Early Termination Liability not defined elsewhere for DS1 and DS3 will be 50% of the remaining months of the agreed upon term after the Minimum Service Period

ACCESS SERVICE

5. Access Ordering (Cont'd)5.5 Minimum Periods and Cancellations5.5.3 Cancellation of an Access Order

(A)

A customer may cancel an Access Order for the installation of service at any time prior to notification by the Telephone Company that service is available for the customer's use. The cancellation date is the date the Telephone Company receives written or verbal notice from the customer that the order is to be canceled. The verbal notice must be followed by written confirmation within 10 days. If a customer or a customer's end user is unable to accept Access Service for any service except Ethernet Virtual Private Line (EVPL) within 30 calendar days of the latest agreed upon service date (i.e. firm order confirmation date), the customer has the choice of the following options:

- The Access Order will be canceled and charges set forth in (B) following will apply if the service has not been fully provisioned; or
- The Access Order will be completed and billing for the service will commence if the service has been fully provisioned or the customer has indicated that billing for the service should begin.

If a customer or a customer's end user is unable to accept Access Service for Ethernet Virtual Private Line (EVPL) within 5 business days of the latest agreed upon service date (i.e. firm order confirmation date), the customer has the choice of the following options:

- The Access Order will be canceled and charges set forth in (B) following will apply if the service has not been fully provisioned; or
- The Access Order will be completed and billing for the service will commence if the service has been fully provisioned or the customer has indicated that billing for the service should begin.

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5. Access Ordering (Cont'd)5.5 Minimum Periods and Cancellations (Cont'd)5.5.3 Cancellation of an Access Order (Cont'd)

- (B) When a customer cancels an Access Order for the installation of service, a Cancellation Charge will apply as follows:
- (1) Installation of Special Access or Public Packet Data Network Service facilities is considered to have started when the Company incurs any cost in connection therewith or in preparation thereof which would not otherwise have been incurred.
 - (2) Where the customer cancels an Access Order prior to the start of installation of access facilities, no charges shall apply.
 - (3) Where installation of access facilities has been started prior to the cancellation, the charges specified in (a) or (b) following, whichever is lower, shall apply.
 - (a) A charge equal to the costs incurred in such installation, less estimated net salvage. Such costs include the nonrecoverable cost of equipment and material ordered, provided or used, plus the nonrecoverable cost of installation and removal including the costs of engineering, labor, supervision, transportation, rights-of-way and other associated costs;
 - (b) The minimum period charges for Special Access or Public Packet Data Network Service ordered by the customer, as set forth in 5.5.2 preceding.

ACCESS SERVICE

5. Access Ordering5.5 Minimum Period and Cancellations5.5.3 Cancellation of an Access Order

- (B) When a customer cancels an Access Order for the installation of service, a Cancellation Charge will apply as follows: (Cont'd)
 - (4) The cancellation charge for OC3, OC12, OC48 or OC192 SONET OC Ring will be calculated as a percentage of the Optical Service Charge set forth in 7.5.1 following for each node associated with the cancelled order. This percentage is calculated as by dividing the number of days from the Firm Order Confirmation date through the Cancellation Date by the number of days in the agreed to service interval. The Cancellation Charge is then developed by multiplying the nonrecurring charges associated with installation of the canceled service by the calculated percentage.
- (C) When a customer cancels an order for the discontinuance of service, no charges apply for the cancellation.
- (D) If the Company misses a service date by more than 30 days and such delay is not requested or caused by the customer (excluding those circumstances where the date is missed due to acts of God, governmental requirements, work stoppages and civil commotions), the customer may cancel the Access Order without incurring cancellation charges.
- (E) When a customer cancels an order for the installation of Digital Subscriber Line Access Service, no charges apply for the cancellation.

5.5.4 Partial Cancellation Charge

Any decrease in the number of ordered Special Access Service channels or Frame Relay Ports and/or PVCs or CCS/SS7 Port Terminations, or Asynchronous Transfer Mode Cell Relay Access Service Ports, Virtual Paths or Virtual Circuit Channels will be treated as a partial cancellation and charges will be determined as set forth in 5.5.3(B) preceding.

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6. Reserved For Future Use

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7. Special Access Service

Effective October 18, 2020, the Company offers Dedicated Ethernet, Switched Ethernet, and Wavelength Services on a private carriage basis and reserves the right to make individualized decisions regarding the provision of service to individual customers. The Company may negotiate the specific prices and terms for Dedicated Ethernet, Switched Ethernet, and Wavelength Services for each individual customer. Unless otherwise specified in this section, the general terms and conditions of this Service Guide apply to Dedicated Ethernet, Switched Ethernet, and Wavelength Services.^[1]

As of August 1, 2017, Special Access Services were changed to a Competitive or Non-Competitive designation. Non-Competitive End-User Channel Terminations (EUCTs) are filed as part of Tariff F.C.C. No. 8 and remain under Price Cap Regulation. Other Special Access Services required to complete the circuit are covered by this ISG.

The following areas are deemed Non-Competitive for Special Access EUCTs and are covered by Tariff F.C.C. No. 8. Areas not listed are deemed Competitive for Special Access Services and are covered by this ISG.

WISCONSIN

Serving Wire Center	8-Digit CLLI Code	Serving Wire Center	8-Digit CLLI Code
Boscobel	BOSCWIXA	Platteville	PTVLWIXA
Bayfield	BYFDWI11	Saxon	SAXNWI11
Hurley	HRLYWI11	Washburn	WSBNWI11
Hazel Green	HZGRWIXA		

^[1] Services include Ethernet Virtual Private Line, Metro Ethernet, Ethernet Transport, and Optical Wavelength.

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7. Special Access Service (Cont'd)7.1 General

Special Access Service provides a transmission path to connect customer designated premises*, directly or through a Company hub or hubs where bridging or multiplexing functions are performed, or to connect a customer designated premises and a WATS Serving Office, or to connect a customer designated premises to a Public Packet Data Network Service. Special Access Service includes all exchange access not utilizing Company end office switches.

The connections provided by Special Access Service in this service guide are optical connections are differentiated by bit rate.

Special Access Service purchased from the provisions of this tariff may be commingled with unbundled network elements, where available, or unbundled network element combinations, where available, purchased pursuant to the Commission's Part 51 Interconnection Rules and in compliance with the Federal Communications Commission's Report and Order and Order on Remand and Further Notice of Proposed Rulemaking in CC Docket Nos. 01-338, 96-98 and 98-147, adopted February 20, 2003 and released August 21, 2003 (FCC 03-36). Unbundled elements and commingling are not available in designated rural Brightspeed Local Operating companies where a 251 (f) exemption is in effect.

7.1.1 Channel Types

Each type of Special Access Channel has its own characteristics. All are subdivided by one or more of the following:

- Transmission specifications,
- Bandwidth,
- Speed (i.e., bit rate),
- Spectrum

Customers can order a basic channel and select from a list of those available transmission parameters and channel interfaces that they desire in order to meet specific communications requirements.

For purposes of ordering channels, each has been identified as a type of Special Access Service. However, such identification is not intended to limit a customer's use of the channel or to imply that the channel is limited to a particular use.

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7. Special Access Service7.1 General7.1.1 Channel Types (Cont'd)

Following is a brief description of each type of channel:

Voice Grade ^[1] - a channel for the transmission of analog signals within an approximate bandwidth of 300 to 3000 Hz.

Program Audio ^[1] - a channel for the transmission of audio signals. The nominal frequency bandwidths are from 200 to 3500 Hz, from 100 to 5000 Hz, from 50 to 8000 Hz, or from 50 to 15000 Hz.

Digital Data ^[1] - a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps.

High Capacity - a channel for the transmission of isochronous serial digital data at rates of 1.544 or 44.736 Mbps.

Synchronous Optical - a high speed channel for the transmission of synchronous full duplex data over optical fiber at rates of 155.52 Mbps (OC3), 622.08 Mbps (OC12), 2.5 Gbps (OC48) or 10 Gbps (OC192).

SONET OC Ring - A dedicated high capacity network for the transmission of voice, data and video via a self-healing ring topology at bandwidth capacities of 155.52 Mbps (OC3), 622.08 Mbps (OC12), 2.5 Gbps (OC48) or 10 Gbps (OC192).

Ethernet Transport – A high speed data transport service that provides point-to-point transmission of customer's data communications in a fast packet based Ethernet protocol at transport speeds of 10 Mbps, 20 Mbps, 50 Mbps, 100 Mbps, 150 Mbps, 300 Mbps, 450 Mbps, 600 Mbps, 1 Gbps, 2.5 Gbps and 10 Gbps.

Ethernet Virtual Private Line – A high speed data transport service that provides the ability to order Ethernet service where a single customer can support multiple applications with varying Quality of Service at transport speeds of 10 Mbps, 100 Mbps, 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).

^[1] Effective February 1, 2020 Voice Grade, Program Audio and Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service7.1 General7.1.1 Channel Types (Cont'd)

Detailed descriptions of each of the channel types are provided in 7.9 through 7.14 following.

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps, 3.152 Mbps, 6.312 Mbps, 44.736 Mbps, 274.176 Mbps, 622.08 Mbps, 2488.32 Mbps or 9953.28 Mbps) to Company hubs for multiplexing to individual channels of a lower capacity or bandwidth. Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility, are set forth in 7.10 following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet specific communications requirements. Descriptions of the optional features and functions available are set forth in 7.2.1 following.

For example, a customer may order a 44.736 Mbps High Capacity channel from a customer designated premises to a Company hub for multiplexing to two 1.544 Mbps channels. The 1.544 Mbps channels may be further multiplexed at the same or a different hub to Voice Grade channels or may be extended to other customer designated premises or hubs. Optional features may be added to either the 1.544 Mbps or the Voice Grade channels.

Synchronous Optical Channel Service provides the customer with the option of ordering Add/Drop Multiplexing at a suitably equipped wire center. This allows lower level signals to be added or dropped from a high speed optical carrier channel for delivery to a customer premises. A description of Add/Drop Multiplexing is set forth in 7.10.3 (C) following.

ACCESS SERVICE

7. Special Access Service7.1 General (Cont'd)7.1.2 Service Descriptions

For the purposes of ordering, the categories of Special Access Service are:

	<u>Service Designator Codes</u>
Voice ^[1]	VG
Program Audio ^[1]	AP
Digital Data ^[1]	DA
High Capacity	DS
Synchronous Optical	OC
SONET OC Ring	SOCR
Ethernet Transport	ET
Ethernet Virtual Private Line	EVPL
Optical Wave Service	OWS

Each service consists of a basic channel to which a technical specifications package (customized or predefined), channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Technical specifications packages are described in Section 15 following, optional features and functions are described in this section. Channel interfaces are described in 15.1 following.

Customized technical specifications packages will be provided where technically feasible. If the Company determines that the requested parameter specifications are not compatible, the customer will be advised and given the opportunity to change the order.

When a customized channel is ordered the customer will be notified whether Additional Engineering Charges apply. In such cases, the customer will be advised and given the opportunity to change the order.

The channel descriptions provided in 7.9 through 7.14 following, specify the characteristics of the basic channel and indicate whether the channel is provided between customer designated premises, between a customer designated premises and a Company hub where bridging or multiplexing functions are performed, between hubs or between a customer designated premises and a WATS Serving Office, or between a customer designated premises and a wire center equipped with a Public Packet Data Network Service.

^[1] Effective February 1, 2020 Voice Grade, Program Audio and Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service7.1 General7.1.2 Service Descriptions (Cont'd)

- (A) Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in matrices set forth in 15.1 following.
- (B) Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth in (E) following. When a customized channel is requested, all channel interface combinations available with the specified type of service are available with the customized channel.
- (C) The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in matrices set forth in 15.1 following with the optional feature or function listed down the left side and the technical specifications package listed across the top.
- (D) The Company will maintain services installed prior to April 1, 1985, at their existing transmission specifications provided such performance specifications do not exceed the standards listed in this provision. Those services exceeding the standards listed will be maintained at the performance levels specified in this service guide.
- (E) All services installed after April 1, 1985 will conform to the transmission specifications standards contained in this service guide or in the following Technical References for each category of service:

Voice Grade Program Audio	TR-TSY-000335; PUB 41004, Table 4 TR-NPL-000337 and associated Addendum
Digital Data For 2.4, 4.8, 9.6 & 56.0 Kbps For 19.2 Kbps For 64.0 Kbps High Capacity	TR-NWT-000341 BellCore Pub 62310,(MDP-326-726) INC Bulletin CB-INC-100 AT&T PUB 62310 TR-INS-000342; TR-NPL-000054; PUB 62411
Synchronous Optical For OC3, OC12, OC48, OC192	GR-243-CORE GR-1374-CORE ANSI T1.105 ANSI T1.102
Ethernet Transport	ANSI / IEEE X3.802.3 ANSI / IEEE X3.802.3u ANSI / IEEE X3.802.3z
SONET	FR-SONET-17

ACCESS SERVICE

7. Special Access Service

7.1 General (Cont'd)

7.1.3 Service Configurations

There are three types of service configurations over which Special Access Services are provided: two-point service, multipoint service and Synchronous Optical Channel Service.

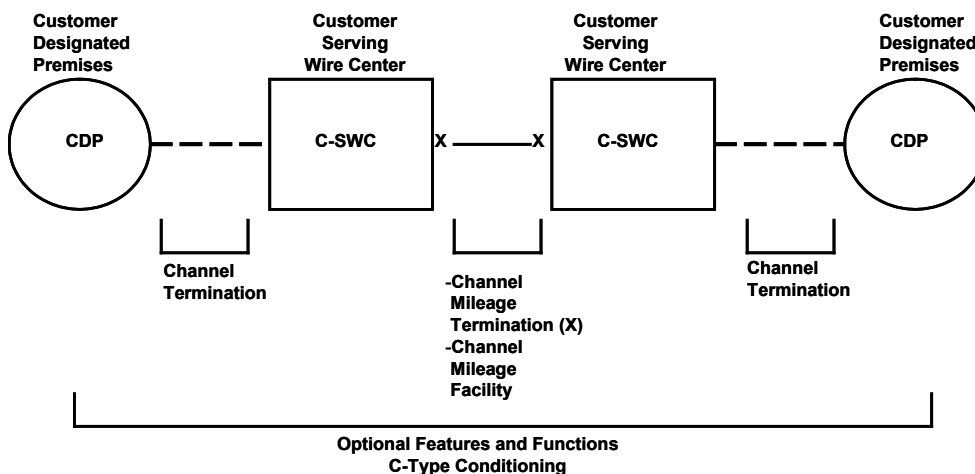
(A) Two-Point Service

A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where multiplexing functions are performed, or a customer designated premises and a WATS Serving Office (WSO) and a WATS Serving Office (WSO) and a wire center equipped with a Public Packet Data Network Services.

Applicable rate elements are:

- Channel Terminations
- Channel Mileage (as applicable)
- Optional Features and Functions (when applicable)

A Special Access Surcharge, as set forth in 7.3 following, may be applicable.



Applicable rate elements are:

- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations plus
 - 1 section, Channel Mileage Facility per mile
- C-Type Conditioning Optional Feature

ACCESS SERVICE

7. Special Access Service7.1 General7.1.3 Service Configurations (Cont'd)(B) Multipoint Service

Multipoint service connects three or more customer designated premises through one or more Company hubs. Only certain types of Special Access Service are provided as multipoint service. These are so designated in the descriptions for the appropriate channel.

Multipoint service utilizing a customized technical specifications package, as set forth in 7.1.2 preceding and 15.1 following, will be provided when technically possible. If the Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

When ordering, the customer will specify the desired bridging hub(s). National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 identifies serving wire centers, hub locations and the type of bridging functions available.

Applicable Rate Elements are:

- Channel Terminations (one per customer designated premises)
- Channel Mileage (as applicable between the serving wire center for each customer designated premises and the hub and between hubs).
- Bridging
- Additional Optional Features and Functions (when applicable).

ACCESS SERVICE

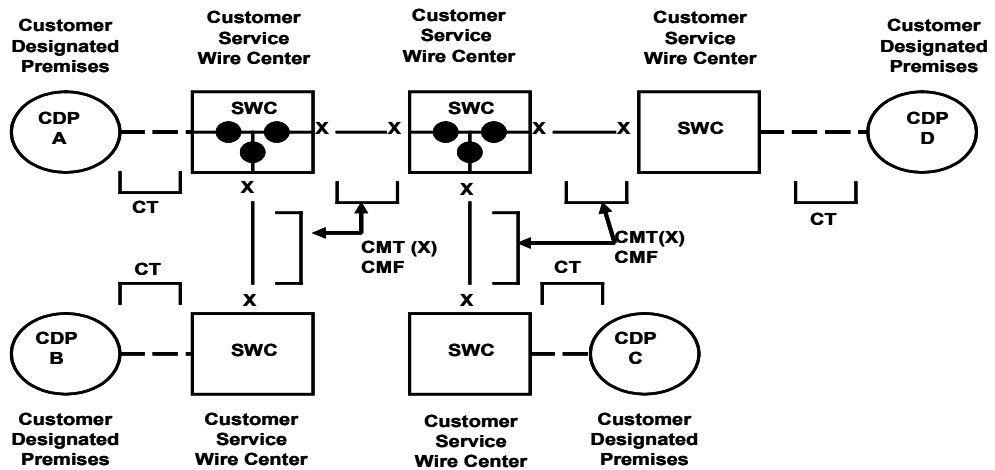
7. Special Access Service

7.1 General

7.1.3 Service Configurations

(B) Multipoint Service (Cont'd)

The Special Access Surcharge, as set forth in 7.3 following, may be applicable.



- CT - Channel Termination
- CMT - Channel Mileage Termination
- CMF - Channel Mileage Facility
- - Bridging Port

Applicable rate elements are:

- Channel Terminations (4 applicable)
- Channel Mileage
 - 2 Channel Mileage Terminations per Channel Mileage Facility section for a total of 8, plus
 - 4 sections, Channel Mileage Facility per mile
- Bridging Optional Feature (6 applicable, i.e., each bridge port)

ACCESS SERVICE

7. Special Access Service7.1 General7.1.3 Service Configurations (Cont'd)(C) Synchronous Optical Channel Service

A Synchronous Optical Channel Service connects two customer designated premises, or a customer designated premises and a wire center equipped for Add/Drop Multiplexing, or a customer designated premises and a wire center equipped with an Asynchronous Transfer Mode Cell Relay Access Service, or a customer designated premises and a wire center equipped with an Ethernet Transport Service. The connection is provided via a high speed optical carrier communications path delivering an optical handoff.

Applicable rate elements are:

- Channel Terminations
- Channel Mileage (where applicable)
- Optional Features and Functions

ACCESS SERVICE

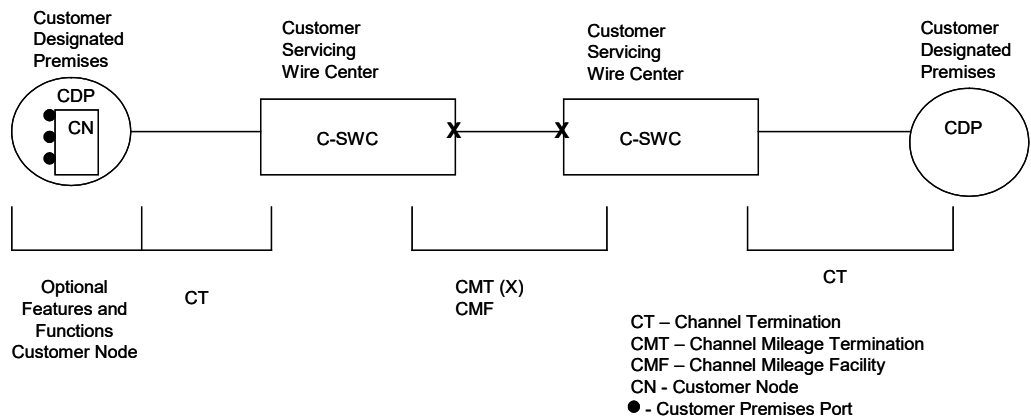
7. Special Access Service

7.1 General

7.1.3 Service Configurations

(C) Synchronous Optical Channel Service (Cont'd)

- (1) The following diagram depicts a synchronous optical channel service connecting two Customer Designated Premises (CDP). The Optional Feature and Function of a Customer Node was ordered at one CDP.



Applicable rate elements are:

- Channel Terminations
2 Channel Terminations (1 per CDP)
- Channel Mileage
2 Channel Mileage Terminations plus
1 Segment Channel Mileage Facility (per mile)
- Optional Feature
1 Customer Node, plus
3 Customer Premises Ports

ACCESS SERVICE

7. Special Access Service7.1 General (Cont'd)7.1.4 Alternate Use

Alternate Use occurs when a service is arranged by the Company so that the customer can select different types of transmission at different times. A customer may use a service in any privately beneficial manner. However, where technical or engineering changes are required to effectuate an alternate use, the Company will make such special arrangements available on an individual case basis.

The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12 following, Specialized Service or Arrangements. The customer will pay the stated rates for the Access Service rate elements for the service ordered [i.e., Channel Terminations, Channel Mileage (as applicable) and Optional Features and Functions (if any)].

7.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access Service be specially routed. The regulations, rates and charges for Special Facilities Routing (i.e., Avoidance and Diversity) are set forth in Section 11. following.

7.1.6 Design Layout Report

At the request of the customer, the Company will provide to the customer the make-up of the facilities and services provided under this service guide as Special Access Service to aid the customer in designing its overall service. This information will be provided in the form of a Design Layout Report. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever these facilities are materially changed.

ACCESS SERVICE

7. Special Access Service7.1 General (Cont'd)7.1.7 Acceptance Testing

At no additional charge, the Company will, at the customer's request, cooperatively test the following at the time of installation:

- (A) For Voice Grade analog services, the acceptance test will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise, and C-message noise when these parameters are applicable and specified in the order of service. Additionally, for Voice Grade services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.
- (B) For other analog services (i.e., Program Audio) and for digital services (i.e., Digital Data and High Capacity), acceptance tests will include tests applicable to the service as specified by the customer in the order for service. All test results will be made available to the customer upon request.

In addition to the above tests, Additional Cooperative Acceptance Testing for Voice Grade service to test other parameters, as described in 13.3.1(B) following, is available at the customer's request. All test results will be made available to the customer upon request.

7.1.8 Ordering Options and Conditions

Special Access Service is ordered under the Access Order provisions set forth in Section 5 preceding. Also included in that section are other charges which may be associated with ordering Special Access Service (e.g., Service Date Change Charges, Cancellation Charges, etc.).

ACCESS SERVICE

7. Special Access Service (Cont'd)7.2 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for Special Access.

7.2.1 Rate Categories

There are three basic rate categories which apply to Special Access Service:

- Channel Terminations (described in 7.2.1(A) following)
- Channel Mileage (described in 7.2.1(B) following)
- Optional Features and Functions (described in 7.2.1(C) following).

(A) Channel Termination

The Channel Termination rate category recovers the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Channel Termination is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any.

For Synchronous Optical Channel Service the high speed optical communications path is between the Optical Line Termination (OLT) at the customer designated premises and the serving wire center of that premises.

One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Company building. For a Special Access Digital Data Service 56.0 or 64.0 Kbps Bit Rate, there will be a charge for only one Channel Termination. For High Capacity Service connecting a customer designated premises to a Frame Relay Access Service as described in Section 16.1, following, there will be a charge for only one Channel Termination. For a Synchronous Optical Channel Service connecting a customer designated premises to an Asynchronous Transfer Mode Cell Relay Access Service as described in Section 16.2, following, there will be a charge for only one channel termination.

For DS1 and DS3 Service, a Channel Termination Mileage charge applies for channel terminations over three (3) miles.

For an OC3/OC3c Synchronous Optical Channel Service connecting a customer designated premises to an ADSL Access Service Connection Point, there will be a charge for only one Channel Termination.

For an OC3, OC12, OC48 or OC192 Synchronous Optical Channel Service connecting a customer designated premises to an Asynchronous Transfer Mode Cell Relay Access Service as described in Section 16.2, following, there will be a charge for only one Channel Termination.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.2 Rate Regulations7.2.1 Rate Categories(A) Channel Termination (Cont'd)

For DS3 High Capacity Service, the Channel Termination rates are made up of the DS3 Capacity interface rate and the DS3 Channel Installed rate. The Capacity Interface rate is dependent upon the capacity ordered (i.e., Capacity Interface of 1, 3, 6 or 12) and is applicable at each customer designated premises. The capacity ordered is the maximum number of DS3 services that can be terminated on a given service at the customer designated premises (e.g., a capacity of 3 can terminate 1, 2, or 3 DS3 services). One DS3 Channel Installed rate applies per customer designated premises at which the channel is terminated for each DS3 channel that is ordered. These charges will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.1 Rate Categories (Cont'd)(B) Channel Mileage

The Channel Mileage rate category recovers the costs associated with the end office equipment and the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Company hub or between two Company hubs, between a serving wire center associated with a customer designated premises and a wire center equipped for Add/Drop Multiplexing (ADM) or between two ADM equipped wire centers. Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate.

(1) Channel Mileage Facility

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Company serving wire centers and/or hub(s) or between the Company serving wire center and another wire center equipped with a Public Packet Data Network Service.

The Synchronous Optical Channel Service Channel Mileage Facility provides high speed transmission facilities between the Company serving wire centers or between a Company serving wire center and another serving wire center equipped for Add/Drop Multiplexing (ADM) or between two ADM equipped wire centers, or between the Company serving wire center and another wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.1 Rate Categories(B) Channel Mileage (Cont'd)(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). The Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and Company hub where the channel is terminated. If the Channel Mileage is between Company bridging hubs, the Channel Mileage Termination rate will apply per Company designated hub. If the Channel Mileage is between the serving wire center for a customer designated premises and a WATS Serving Office, the Channel Mileage Termination rate will apply at both the serving wire center associated with the customer designated premises and the WATS Serving Office.

If the Channel Mileage is between the serving wire center for a customer designated premises and another wire center equipped for Frame Relay Access Service, the Channel Mileage Termination Rate will apply only at the serving wire center for the customer designated premises.

If the Channel Mileage is between a Company serving wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) and another Company ATM-equipped serving wire center, no Channel Mileage Termination Rate will apply.

If the Channel Mileage for Synchronous Optical Channel Service is between the serving wire center for a customer designated premises and a wire center equipped for Add/Drop Multiplexing, the Channel Mileage Termination Rate will apply at both the serving wire center associated with the Customer Designated Premises and the wire center equipped with Add/Drop Multiplexing. If the Channel Mileage is between two wire centers equipped for Add/Drop Multiplexing, the channel Mileage Termination rate will apply at both wire centers equipped with Add/Drop Multiplexing.

When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.1 Rate Categories (Cont'd)(C) Optional Features and Functions

The Optional Features and Functions rate category recovers the costs associated with optional features and functions which may be added to a Special Access Service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, they will be charged for as a single rate element.

Examples of Optional Features and Functions that are available include, but are not limited to, the following:

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

Descriptions for each of the available Optional Features and Functions are set forth in 7.9 through 7.14 following.

A hub is a Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed are to connect three or more customer designated premises in a multi point arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.

National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 identifies serving wire centers, hub locations, hub level (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of bridging or multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.2 Types of Rates and Charges

Following are types of rates and charges. These are monthly rates, daily rates and nonrecurring charges. The rates and charges are described as follows:

(A) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a Special Access Service is provided. For billing purposes, each month is considered to have 30 days.

(B) Daily Rates

Daily rates are recurring rates that apply to each 24 hour period or fraction thereof that a Program Audio Special Access Service is provided for part-time use. For purposes of applying daily rates, the 24 hour period is not limited to a calendar day.

Part-time Program Audio Service provided within a consecutive 30 day period will be charged the daily rate, not to exceed the monthly rate. For each day or partial day after a consecutive 30 day period of service, a charge equal to 1/30th of the monthly rate shall apply.

(B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Special Access Service are: installation of service, installation of optional features and functions, and service rearrangements. These charges are in addition to the Access Order Charge as specified in Section 17, following.

(1) Installation of Service

Nonrecurring charges apply to each service installed. The nonrecurring charges for the installation of service are set for each channel type as a nonrecurring charge for the Channel Termination.

(2) Installation of Optional Features and Functions

When optional features and functions are installed coincident with the initial installation of service, no separate nonrecurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in Section 17, following, will apply per order.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.2 Types of Rates and Charges(B) Nonrecurring Charges (Cont'd)(3) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service. Changes to pending orders are set forth in 5.4 preceding.

Changes in the physical location of the point of termination or customer designated premises are moves as set forth in 7.2.3 following.

Changes in the type of Service or Channel Termination which result in a change of the minimum period requirement will be treated as a discontinuance of the service and an installation of a new service.

Changes in ownership or transfer of responsibility from one customer to another will be treated as a discontinuance of the service and an installation of a new service. In the event the change in ownership or transfer of responsibility is as set forth in 2.1.2(A) preceding where there is no change in facilities or arrangements, the change will be treated as an administrative change.

For service rearrangements involving OC3, OC12, OC48 and OC192 special access SONET OC Ring service, a charge equal to one half the Optical Service Charge set forth in Section 17 will apply for each node rearranged.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.2 Types of Rates and Charges(B) Nonrecurring Charges(3) Service Rearrangements (Cont'd)

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer test line number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

All other service rearrangements will be charged as follows:

- If the change involves the addition of other customer designated premises to an existing service, the nonrecurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge as set forth in Section 17 following.
- If the change involves the addition of an optional feature or function and for all other changes, the Access Order Charge as set forth in Section 17 following will apply.
- When the Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated non-recurring charges will apply.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.3 Moves

A move involves a change in the physical location of one of the following:

- The Point of Termination at the customer's premises; or
- The customer's premises

The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

(A) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in Section 17 following.

(B) Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

7.2.4 Minimum Periods

The minimum service period for all services except part-time Program Audio services, DS3 High Capacity Service, Synchronous Optical Channel Service is one month and the full monthly rate will apply to the first month. Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in 2.4.1(F) preceding. The minimum service period for part-time Program Audio services is a continuous 24-hour period, not limited to a calendar day. Effective May 16, 2019, the minimum service period for DS3 High Capacity Service is one month. Prior to May 16, 2019, the minimum service period for DS3 High Capacity Service was twelve months. The minimum service period for Synchronous Optical Channel Service and SONET OC Ring is twelve months.

Additional Minimum Periods on other services, Minimum period charges and associated termination liability charges are described in Section 5 preceding.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.5 Mileage Measurement

The mileage to be used to determine the monthly rate for the Channel Mileage Facility is calculated on the airline distance between the locations involved, i.e.,

- the serving wire centers associated with two customer designated premises,
- a serving wire center associated with a customer designated premises and a Company hub,
- a serving wire center associated with a customer designated premises and a wire center equipped with a Public Packet Data Network service,
- two Company hubs,
- a serving wire center associated with a customer designated premises and a wire center equipped for Add/Drop Multiplexing,
- two wire centers equipped for Add/Drop Multiplexing,
- or between the serving wire center associated with a customer designated premises and a WATS Serving Office.

The serving wire center associated with a customer designated premises is the serving wire center from which this customer designated premises would normally obtain dial tone.

Mileage charges are shown with each channel type. To determine the rate to be billed, first compute the mileage using the V&H coordinates method, as set forth in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, then multiply the resulting number of miles times the Channel Mileage Facility per mile rate, and add the Channel Mileage Termination rate for each termination. When the calculation results in a fraction of a mile, always round up to the next whole mile before determining the mileage and applying the rates. When more than one Company is involved in the provision of service, billing will be accomplished as set forth in 2.4.7 preceding.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.5 Mileage Measurement (Cont'd)

When hubs are involved, mileage is computed and rates applied separately for each section of the Channel Mileage, i.e.,

- customer designated premises serving wire center to hub,
- hub to hub and/or
- hub to customer designated premises serving wire center.

However, when any service is routed through a hub for purposes other than customer specified bridging or multiplexing (e.g., the Company chooses to so route for test access purposes), rates will be applied only to the distance calculated between the serving wire centers associated with the customer designated premises.

See the service configuration example for multipoint service as set forth in 7.1.3(B) preceding.

When Add/Drop Multiplexing is offered in connection with Synchronous Optical Channel Service, mileage is computed and rates applied separately for each section of the Channel Mileage, i.e.,

- customer designated premises serving wire center to an Add/Drop Multiplexing (ADM) equipped wire center,
- ADM equipped wire center to ADM equipped wire center,
- ADM equipped wire center to a customer designated premises serving wire center.

When SONET OC Ring involves the connection of nodes, channel mileage is computed for each section of the ring between nodes.

7.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services (i.e., DS1, or DS3) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., Voice, Program Audio, etc.).

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.6 Facility Hubs (Cont'd)

Different locations may be designated as hubs for different facility capacities, e.g., multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. When placing an Access Order the customer will specify the desired hub.

National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 identifies serving wire centers, hub locations, hub level (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

Some of the types of multiplexing available include the following:

- from higher to lower bit rate
- from higher to lower bandwidth
- from high capacity to voice frequency channels.

Point to point services may be provided on channels of these services to a hub. The transmission performance for the point to point service provided between customer designated premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps channel is multiplexed to voice frequency channels, the transmission performance of the channelized services will be Voice Grade, not High Capacity.

The Telephone Company will commence billing the monthly rate for the service to the hub on the date specified by the customer on the Access Order. Individual channels utilizing these services may be installed coincident with the installation of the service to the hub or may be ordered and/or installed at a later date, at the option of the customer. The customer will be billed for a Voice Grade or a High Capacity Channel Termination, Channel Mileage (when applicable), and the multiplexer at the time the service is installed. Individual service rates (by service type) will apply for a Channel Termination and additional Channel Mileage (as required) for each channelized service. These will be billed to the customer as each individual service is installed.

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7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.7 Mixed Use

Mixed use refers to a rate application applicable only when the customer orders High Capacity Special Access or Synchronous Optical Channel Service Special Access facilities between a customer-designated premises and a Company hub where the Company performs multiplexing/de-multiplexing functions and the same customer then orders the derived channels as Special and Switched Access Services. If the customer has Switched Access Service between a customer designated premises and an end office that is multiplexed at a Company hub and subsequently orders the derived channels as Special and Switched Access Service, rates and charges will apply as if the service were ordered as mixed use.

Except as noted above, the High Capacity facility or Synchronous Optical Channel Service facility will be ordered, provided and rated as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, and Multiplexing, Customer Node, Customer Premises Port and Add/Drop Multiplexing). The nonrecurring charge that applies when the mixed use facility is installed will be the nonrecurring charge associated with the appropriate High Capacity Special Access Channel Termination or Synchronous Optical Channel Termination. Rating as Special Access will continue until such time as the customer chooses to use a portion of the available capacity for Switched Access Service. Individual service (i.e., Switched or Special Access) nonrecurring charges will not apply to the individual channels of the mixed use facility.

When Special Access Service is provided utilizing a channel of the mixed use facility to a hub, High Capacity rates and charges will apply for the facility to the hub, as set forth preceding, and individual service rates and charges will apply from the hub to the customer designated premises. The rates and charges that will apply to the portion from the hub to the customer designated premises will be dependent on the specific type of Special Access Service that is provided (e.g., Voice Grade, etc.). The applicable rates and charges will include a Channel Termination and Channel Mileage, if applicable. Rates and charges for optional features and functions associated with the service, if any, will apply for the appropriate channel type.

As each individual channel of a Special Access Synchronous Optical Channel Service is activated for Switched Access Service, the Special Access Channel Termination, Channel Mileage, Customer Node, Customer Premises Port and Add/Drop Multiplexing rates will be reduced accordingly (e.g., 1/2016th for an OC3 service, 1/8064th for an OC12 service).

If the Special Access charges for the mixed use facility are subject to Optional Rate Plan discounts (e.g., Term Discount Optional Rate Plan) as set forth in 7.2.8 following, the Special Access charges will be reduced to reflect mixed use before the Optional Rate Plan discounts are applied.

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7. Special Access Service

7.2 Rate Regulations

7.2.7 Mixed Use (Cont'd)

Switched Access Service rates and charges, as set forth in Brightspeed Local Operating Companies F.C.C. No. 8 will apply for each channel that is used to provide a Switched Access Service. The Switched Access Service Entrance Facility charge, if applicable, will be reduced by multiplying its rate by the ratio of derived Switched Access Service channels to the total number of channels that can be derived. If the Company is providing Direct Trunked Transport, then the Direct Trunked Transport, Multiplexing, Customer Node, Customer Premises Port and Add/Drop Multiplexing charges will be reduced by multiplying their respective rates by the rate reduction factor.

Synchronous Optical Channel Service	DS3 Quantities	DS1 Quantities	Voice Grade Equivalents
OC3	3	84	2,016
OC12	12	336	8,064

The customer must place an order for each individual Switched or Special Access Service utilizing the Mixed Use Facilities and specify the channel assignment for each such service.

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7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans(A) Synchronous Optical Channel Service Optional Rate Plan ^[1]

Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

The Synchronous Optical Channel Service Optional Rate Plan offers a Term Discount. The Term Discount applies to Channel Terminations, Channel Mileage, Customer Nodes, Customer Premises Ports and Central Office Ports monthly rates, as set forth following. The rates for the Synchronous Optical Channel Service Term Discounts are set forth in 17.6.9 (A), (B), (C) and (D) following.

Discounts for the Synchronous Optical Channel Service Optional Rate Plan are only applied to Synchronous Optical Channel Service provided to a customer within the same state and LATA by the same Company.

OC3/OC3c, OC12/OC12c, OC48/OC48c and OC192 Synchronous Optical Channel Service may be ordered at the customer's option on a monthly basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discounts plans is twelve months. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount Plan for 36 or 60 months, the Term Discount rates as set forth in 17.6.9 following will be frozen from Company initiated decreases, for the entire discount period at the percent in effect at the beginning of the Term Discount period.

If a Term Discount percentage increase occurs during the term of an existing Term Discount plan, the increase percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-to-month service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates. The minimum service period on a monthly basis is twelve months for Synchronous Optical Channel Service.

To be included in a Term Discount plan, all eligible Synchronous Optical Channel Service rate elements must be ordered for the same rate commitment term (i.e., all 36 months or 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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7. Special Access Service7.2 Rate Regulations7.2.8 Optional Rate Plans(A) Synchronous Optical Channel Service Optional Rate Plan ^[1] (Cont'd)

Eligible OC3/OC3c, OC12/OC12c, OC48/OC48c or OC192 Synchronous Optical Channel Service rate elements are those Channel Terminations, Channel Mileage Facility, Channel Mileage Terminations, Customer Nodes, Customer Premises Port and Central Office Ports provided to a customer within the same state and LATA by the same Company. As long as the number of OC3/OC3c, OC12/OC12c, OC48/OC48c or OC192 included in a Term Discount plan remains constant, customer requests to install and disconnect OC3/OC3c, OC12/OC12c, OC48/OC48c or OC192 services, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in (3) following will not apply.

(1) Upgrades in Term Discounts

Services provided under monthly rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 month or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all Synchronous Optical Channel Service that is upgraded.

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.8 Optional Rate Plans(A) Synchronous Optical Channel Service Optional Rate Plan ^[1] (Cont'd)(2) Upgrades in Capacity (OC3/OC3c to OC12/OC12c, OC48/OC48c and/or OC192)

If the customer chooses to upgrade a service under the Term Discount rate plan to a higher capacity (i.e., OC3/OC3c to OC12/OC12c, OC48/OC48c and/or OC192), discontinuance charges will not apply, provided all of the following conditions are met:

- the customer's order for the disconnect of the existing OC3/OC3c, OC12/OC12c or OC48/OC48c Service and the installation of the new OC12/OC12c, OC48/OC48c or OC192 Service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing OC3/OC3c, OC12/OC12c or OC48/OC48c Service must reference the OC12/OC12c, OC48/OC48c or OC192 Service installation order,
- the new service has a total channel capacity greater than the total channel capacity of the service being discontinued and,
- the new Term Discount period meets or exceeds the Term Discount period being discontinued.

A new minimum service period applies to all upgrades. Nonrecurring charges will not be assessed when an existing OC3, OC12 and/or OC48 service is upgraded to an equivalent channel capacity at a higher speed.

Should the customer choose to upgrade either a portion of, or the entire OC3/OC3c, OC12/OC12c and/or OC48/OC48c Service under the Term Discount plan to an OC12/OC12c, OC48/OC48c and/or OC192 Service and move the service to a new customer location(s) within the same state and LATA, and when the service is provided by the same Company, discontinuance charges will not apply.

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.8 Optional Rate Plans(A) Synchronous Optical Channel Service Optional Rate Plan A ^[1] (Cont'd)(3) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to 100% of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of 15% for the OC3/OC3C service and 50% for the OC12/OC12c, OC48/OC48c or OC192 service, of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period but before the completion of the discount period, discontinuance charges will apply. Discontinuance charges of 15% for OC3/OC3C Service and 50% for OC12/OC12c, OC48/OC48c or OC192 Service, of the total undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has an OC3/OC3c Service which it chooses to discontinue after 33 months into a 60 month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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7. Special Access Service (Cont'd)7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans (Cont'd)(B) High Capacity Optional Rate Plan

Effective May 16, 2019 the following High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

The Term Discount plan applies to Special Access DS1 and DS3 High Capacity Service Channel Termination, Channel Mileage Facility and Channel Mileage Termination monthly rates, as set forth following. The current monthly rates for such services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer. The Term Discount percentages for High Capacity Service are as set forth in 17.5.8(C) following.

Discounts for the Term Discount plan are only applied to High Capacity Service provided to a customer within the same state and LATA by the same Telephone Company.

The minimum service period on a monthly rate basis is one month for DS1 service and twelve months for DS3 service.

(1) Term Discounts

DS1 and DS3 High Capacity Special Access Service may be ordered at the customer's option on a monthly rate basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discount plans is twelve months. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentage as set forth in 17.5.8(C) following will be frozen from Company initiated decreases, for the entire discount period at the percent in effect at the beginning of the Term Discount period.

If a Term Discount Percentage increase occurs during the term of an existing Term Discount plan, the increased percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-to-month service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates.

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7. Special Access Service (Cont'd)7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans (Cont'd)(B) High Capacity Optional Rate Plan [1] (Cont'd)(1) Term Discounts (Cont'd)

To be included in a Service Term Discount plan, all eligible High Capacity rate elements must be ordered for the same commitment term (i.e., all 36 months or all 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

Eligible DS1 or DS3 High Capacity rate elements are those Channel Terminations, Channel Mileage Facility and Channel Mileage Terminations provided to a customer within the same state and LATA by the same Telephone Company. As long as the number of DS1s or DS3s included in a Term Discount plan remains constant, customer requests to install and disconnect DS1 or DS3 services, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period.

[1] Effective May 16, 2019 the High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

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7. Special Access Service (Cont'd)7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans (Cont'd)(B) High Capacity Optional Rate Plan [1] (Cont'd)(1) Term Discounts (Cont'd)(a) Upgrades in Term Discounts

Services provided under monthly rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring Channel Termination nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 month, or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all High Capacity Service that is upgraded.

(b) Upgrades in Capacity (DS1 to DS3)

If the customer chooses to upgrade a service under the Term Discount rate plan to a higher capacity (i.e., DS1 to DS3), discontinuance charges will not apply, provided all the following conditions are met:

- the customer's order for the disconnect of the existing DS1 Service and the installation of the new DS3 Service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing DS1 Service must reference the DS3 Service installation order,
- the new service has a total voice equivalent channel capacity greater than the total voice equivalent channel capacity of the service being discontinued and,
- the new Term Discount Period meets or exceeds the Term Discount period being discontinued.

[1] Effective May 16, 2019 the High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

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7. Special Access Service (Cont'd)7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans [1] (Cont'd)(B) High Capacity Optional Rate Plan (Cont'd)(1) Term Discounts (Cont'd)(b) Upgrades in Capacity (DS1 to DS3) (Cont'd)

A new minimum service period applies to all upgrades. Channel Termination nonrecurring charges for an equivalent channel capacity of the existing services being upgraded to the higher speed service will not be assessed. For example, 30 existing DS1 Services are being upgraded to DS3 Service at the customer's request. A total of 2 DS3 Services will be installed without Channel Termination nonrecurring charges being assessed, as it will require 2 DS3 Services to provide the equivalent channel capacity of the existing services. Channel Termination nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service if requested at the same time as the upgrade request. Channel Termination nonrecurring charges will apply for capacity that exceeds the existing equivalent channel capacity.

Should the customer choose to upgrade either a portion of, or the entire DS1 Service under the Term Discount plan to a DS3 Service and move the service to a new customer location(s) within the same state and LATA, and when service is provided by the same telephone company, discontinuance charges will not apply.

[1] Effective May 16, 2019 the High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

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7. Special Access Service (Cont'd)7.2 Rate Regulations (Cont'd)7.2.8 Optional Rate Plans (Cont'd)(B) High Capacity Optional Rate Plan [1] (Cont'd)(1) Term Discounts (Cont'd)(c) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to 100% of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of 15% for DS1 service, and 50% for DS3 service, of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period but before the completion of the discount period, discontinuance charges will apply. Discontinuance charges of 15% for DS1 Service, and 50% for DS3 Service, of the total undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has a DS1 Service which it chooses to discontinue after 33 months into a 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

[1] Effective May 16, 2019 the High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.8. Optional Rate Plans (Cont'd)I SONET OC Ring Rate Plan

Effective March 1, 2022 the SONET OC Ring Rate Plan with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

The SONET OC Ring Rate Plan is a Term Discount. The Term Discount applies to Customer and Company Nodes, Customer and Company Configuration Cards, all Channel Mileage components and SONET Regeneration monthly rates, as set forth in 17.6.12 following.

Discounts for the SONET OC Ring Rate plan are only applied to Synchronous Optical Channel Service provided to a customer within the same state and LATA by the same Company.

OC3/OC3c, OC12/OC12c, OC48/OC48c and OC192 Synchronous Optical Channel Service may be ordered at the customer's option on a monthly basis or for Term Discount periods of 12 months (1 year), 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discount plans is twelve months. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount Plan for 1, 3 or 5 years, the Term Discount rates will be frozen from Company initiated decreases, for the entire discount period at the percent in effect at the beginning of the Term Discount period.

If a Term Discount percentage increase occurs during the term of an existing Term Discount plan, the increase percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-to-month service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates. The minimum service period on a monthly basis is twelve months for Synchronous Optical Channel Service.

To be included in a Term Discount plan, all eligible Synchronous Optical Channel Service rate elements must be ordered for the same rate commitment term (i.e., all 36 months or 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

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7. Special Access Service7.2 Rate Regulations7.2.8. Optional Rate Plans(C) SONET OC Ring Rate Plan ^[1] (Cont'd)

Eligible OC3/OC3c, OC12/OC12c, OC48/OC48c or OC192 Synchronous Optical Channel Service rate elements are those Channel Terminations, Channel Mileage Facility, Channel Mileage Terminations, Customer Nodes, Customer Premises Port and Central Office Ports provided to a customer within the same state and LATA by the same Company. As long as the number of OC3/OC3c, OC12/OC12c, OC48/OC48c or OC912 included in a Term Discount plan remains constant, customer requests to install and disconnect OC3/OC3c, OC12/OC12c, OC48/OC48c or OC192 services, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in 7.2.8 (C) (3) following will not apply.

(1) Upgrades in Term Discounts

Services provided under the monthly rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all Synchronous Optical Channel Service that is upgraded.

[1] Effective March 1, 2022 the SONET OC Ring Rate Plan with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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7. Special Access Service7.2 Rate Regulations7.2.8. Optional Rate Plans(C) SONET OC Ring Rate Plan ^[1] (Cont'd)(2) Upgrades in Capacity (OC3/OC3c to OC12/OC12c, OC48/OC48c and/or OC192)

If the customer chooses to upgrade a service under the Term Discount Rate Plan to a higher capacity (i.e., OC3/OC3c to OC12/OC12c, OC48/OC48c and/or OC192), discontinuance charges will not apply, provided all of the following are met:

- the customer's order for the disconnect of the existing OC3/OC3c, OC12/OC12c or OC48/OC48c Service and the installation of the new OC12/OC12c, OC48/OC48c or OC192 Service are received at the same time and specifically reference the application of upgrade in capacity.
- the customer's disconnect order for the existing OC3/OC3c, OC12/OC12c, OC48/OC48c Service must reference the OC12/OC12c, OC48/OC48c or OC192 Service installation order,
- the new service has a total channel capacity greater than the total channel capacity of the service being discontinued and,
- the new Term Discount period meets or exceeds the Term Discount period being discontinued.

A new minimum service period applies to all upgrades. Nonrecurring charges will not be assessed when an existing OC3, OC12 and/or OC48 Service is upgraded to an equivalent channel capacity at a higher speed.

Should the customer choose to upgrade either a portion of, or the entire OC3/OC3c, OC12/OC12c and/or OC48/OC48c service under the Term Discount plan to an OC12/OC12c, OC48/OC48c and/or OC192 Service and move the service to a new customer location(s) within the same state and LATA, and when service is provided by the same Company, discontinuance charges will not apply.

[1] Effective March 1, 2022 the SONET OC Ring Rate Plan with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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7. Special Access Service7.2 Rate Regulations7.2.8. Optional Rate Plans(C) SONET OC Ring Rate Plan ^[1] (Cont'd)(3) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount Plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent for the OC3/OC3c and fifty percent for the OC12/OC12c, OC48/OC48c or OC192 service, of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period but before completion of the discount period, discontinuance charges will apply. Discontinuance charges of fifteen percent for OC3/OC3c Service and fifty percent for OC12/OC12c, OC48/OC48c or OC192 Service, of the undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has an OC3 service which it chooses to disconnect after 33 months into a 60 month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rate for that service.

[1] Effective March 1, 2022 the SONET OC Ring Rate Plan with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.9 Ethernet Transport

The rates and charges for Ethernet Transport (ET) service are set forth in Section 17.5.9 following and are in addition to any applicable rates and charges set forth in any other sections of this service guide. Nonrecurring charges and monthly recurring rates applicable for ET service are billed in advance.

- (A) Nonrecurring charges are one-time charges that apply for a specific work activity (i.e., installation of service) and are developed at full cost recovery on a labor hours per labor time basis. Nonrecurring charges will apply for Ethernet Transport regardless of the option selected (i.e., month-to-month, one, three or five year commitment). However, if at the end of the one, three or five year commitment period, the customer elects to renew their commitment plan or revert to the month-to-month rates, a nonrecurring charge will not apply for this renewal.
- (B) Monthly recurring charges are flat recurring rates that apply each month or fraction thereof that a specific rate element is provided regardless of the amount of usage. For billing purposes, each month is considered to have 30 days.
- (C) Ethernet Transport service is available on a month-to-month basis or for a period of one, three or five years. All ET arrangements will begin in month one. If the customer requests that the service be disconnected prior to the expiration of the one, three or five year service period selected, termination liability charges equal to 50% of the remaining months of the term will apply. For example, a customer disconnecting in the 12th month of a 3 year plan will be charged 50% of the remaining 24 months of billing. The Federal Government and its authorized agents are exempt from the 50% termination liability penalty charge if service is discontinued prior to the expiration of the one, three or five year minimum commitment period.

Additionally, customers may disconnect ET service, without penalty, should the total monthly recurring rates associated with ET service increase by 10% or more at any one time. The customer must notify the Company in writing within 90 days after the effective date of the rate increase if they elect to discontinue service. Rate decreases will automatically be applied to the monthly recurring rates for the remainder of the service period.

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7. Special Access Service7.2 Rate Regulations7.2.9 Ethernet Transport

(C) (Cont'd)

If the customer does not specify renewal terms in writing 90 days prior to the expiration of the one, three or five year period, the commitment period and ET service rates in effect at the time of expiration will automatically renew. Alternatively, 90 days prior to the expiration of the one, three or five year period the customer may specify in writing their intent to continue use of the services under month-to-month rates. The customer can terminate ET service at the end of the minimum commitment period with no penalty or obligation to continue the service. Further, if the customer notifies the Company in writing 90 days prior to the expiration date of their minimum commitment period with their intent to not renew their ET service, the customer will have six (6) months after the expiration date to submit their disconnect order(s). If the customer fails to submit their disconnect order(s), by the end of the six (6) month period, the commitment period in effect at the time of the original expiration period will automatically renew at the current service guide rates. If the customer submits their disconnect orders(s) after the six (6) month period, termination liability charges will apply. Termination liability charges will be calculated at 50% of the monthly recurring charges for the remaining months of the commitment period up to a maximum of twelve (12) months. Time from the expiration of the original commitment period until the disconnect order(s) are received will apply for calculation of the termination liability charges.

Customers may upgrade Ethernet Transport without incurring termination liability charges under the following circumstances

- (1) The order for the disconnect of the existing Ethernet Transport and the order for the upgraded Ethernet Transport must be received at the same time.
- (2) The new Ethernet Transport is provided between the same customer and central office locations as the discontinued service.
- (3) The service period of the new Ethernet Transport is equal to or greater than the service period of the existing Ethernet Transport service.

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7. Special Access Service7.2 Rate Regulations (Cont'd)7.2.10 Ethernet Virtual Private Line

The rates and charges for Ethernet Virtual Private Line (EVPL) service are set forth in Section 17.5.10 following and are in addition to any applicable rates and charges set forth in any other sections of this service guide. Monthly recurring rates and nonrecurring charges applicable for EVPL service are billed in advance.

(A) Monthly Recurring Charges

Monthly recurring charges are flat recurring rates that apply each month or fraction thereof that a specific rate element is provided regardless of the amount of usage. For billing purposes, each month is considered to have 30 days.

(B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for a specific work activity (i.e., installation of service or change to an existing service) and are developed at full cost recovery on a labor hours per labor time basis. In addition, an EVPL Reconfiguration charge, as set forth in 17.5.10 following, will apply for each Ethernet Virtual Connection (EVC), Operator Virtual Connection (OVC) or Quality of Service (QoS) established initially or when the customer requests the EVC, OVC, or QoS be reconfigured after the initial set up. The EVPL Reconfiguration charge is in addition to all applicable charges associated with the new configuration. The EVPL Reconfiguration charge will not apply to customers who purchase EVPL under the 7 year Fixed Rate Term Plan (FRTP).

Special construction charges, as set forth in Brightspeed Local Operating Companies Tariff F.C.C. No. 5, may apply when technical limitations and/or lack of facilities exist, or if it is necessary to construct facilities to satisfy service requests.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line (Cont'd)(C) Term Discount Plan

The Service Element Term Plan is a Term Discount Plan (TDP) available for EVPL service and applies to UNI and NNI port connections, EVC/OVC connections, QoS and ICO NNI Trunking Arrangement. A TDP provides the customer discounted rates for the rate elements listed.

The customer has the option of ordering EVPL under a term commitment period of 1, 2, 3 or 5 years. The customer must notify the Company in writing the length of its selected term commitment period. In order for a circuit to be eligible for TDP pricing, the customer must commit a UNI and/or NNI port connection to a TDP. All committed ports must be ordered for the same term commitment period (i.e., all 3 years or all 5 years) and remain in-service at the same bandwidth capacity throughout the entire term commitment period. UNI or NNI port connections installed after the establishment of the customer's TDP may be ordered on a month-to-month basis or added as additional committed ports to a customer's existing term commitment period as described in (1) following.

The monthly rates for EVPL service under a TDP are set forth in 17.5.10 following.

Although the customer commits the UNI and NNI port connections to the TDP, the following rate elements will receive TDP rates:

UNI Port Connection
NNI Port Connection
EVC/OVC Connections
ICO NNI Trunking Arrangement
QoS

Since there is no bandwidth or minimum commitment levels required for the UNI or NNI port connections under the TDP, disconnection of or change in the number or bandwidth capacities for these elements do not affect the customer's TDP.

Except as specified in (1) through (3) following, termination liability charges will apply when the customer fails to satisfy the term commitment period or the in-service requirements for their committed port connections.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan (Cont'd)

Rate increases or decreases will automatically be applied to the monthly recurring rates for the remaining term of the TDP. If a Company initiated rate increase causes a customer's rate to increase by 10% or more at any one time, the customer may cancel their TDP without incurring termination liability charges.

At the end of the term commitment period, the customer may subscribe to a new TDP commitment period or month-to-month rates. If the customer does not notify the Company in writing within 60 calendar days prior to the expiration of their 1, 2, 3 or 5 year term commitment period, the term commitment period and TDP rates and conditions in effect at the time of expiration will automatically renew.

(1) Addition of UNI/NNI Port Connection

When the customer requests the addition of a port connection, the customer will choose one of the following options when ordering a new port connection during its existing term commitment period:

- (a) Add the new port connection to its existing TDP, provided the customer commits to retain the newly installed port connection in-service at the same bandwidth capacity for the remainder of the existing term commitment period. The term commitment period of the customer's existing TDP will continue uninterrupted.
- (b) Convert the existing TDP in its entirety with a new TDP as described in (3) following.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan (Cont'd)(2) Upgrading a Committed UNI/NNI Port Connection

(a) A TDP customer may upgrade a committed port connection without incurring termination liability charges, as set forth in (4) following, provided:

- (1) the bandwidth capacity of the upgraded committed port connection is greater than the bandwidth capacity of the original committed port connection; and
- (2) the customer commits to retain the upgraded committed port connections in-service for the remainder of the existing term commitment period; and
- (3) the customer purchased the original committed port connection to offer to third party end users and the end user is the same for both the original committed port connection and the upgraded committed port connection. In the case of a move to a different building, the end user must be the same at the old and the new location.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan (Cont'd)(3) Converting a TDP

- (a) The customer may also convert an existing TDP with the Fixed Rate Term Plan (FRTP) described in (D) following without incurring termination liability charges provided the bandwidth capacity of the committed FRTP port connections meets the minimum bandwidth capacity requirement of the FRTP.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan (Cont'd)(4) Termination Liability

Except as provided for in (2) and (3) preceding, termination liability charges will apply as follows:

- (a) the customer disconnects a committed TDP port connection prior to the end of the term commitment period;
- (b) the customer discontinues an existing TDP in its entirety prior to the end of the term commitment period; or
- (c) the customer converts an existing TDP with a new TDP that does not satisfy the requirements specified in (3) preceding.

The termination liability charge will be equal to 50% of the total monthly recurring rates for each committed TDP port connection included in the customer's TDP for each month remaining in the term commitment period.

The following examples illustrate how the Company will calculate the applicable termination liability charges.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan(4) Termination Liability (Cont'd)Example 1

A customer discontinues its existing TDP in its entirety in the 20th month of a 3 year term commitment period. The customer included three 100 Mbps committed port connections when they established their initial term plan commitment.

Using an illustrative monthly rate of \$300.00 for the 100 Mbps committed port connection, the Company would bill the customer termination liability charges totaling \$7,200.00 (i.e., \$300.00 x 50% x 3 port connections x 16 months remaining in the term commitment period).

Example 2

A customer discontinues one of the four 30 Mbps committed port connections included in their TDP in the 39th month of a 5 year term commitment period. The customer included all four of these port connections when they established their initial TDP.

Using an illustrative monthly rate of \$100.00 for a 30 Mbps committed port connection, the Company would bill the customer termination liability charges totaling \$1,050.00 for the disconnection of the one port connection (i.e., \$100.00 x 50% x 21 months remaining in the term commitment period).

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(C) Term Discount Plan (Cont'd)(5) Termination Liability - Downgrades

The customer may subsequently decrease existing speed or capacity for EVPL port connections, QoS and EVC/OVC (i.e., 100 Mbps to 50 Mbps; 1 Gbps to 100 Mbps) as low as the previously configured speed without being assessed termination liability. If the customer chooses to decrease the existing speed or capacity to a lower bandwidth than what was on the previous order prior to the expiration date of the fixed period service rate plan termination liability will apply. However, if the customer commits to a new term discount plan and if the total monthly recurring revenue of the new service is equal to or greater than 115% of the remaining value of the existing term plan, no termination liability will apply.

The customer must note on the order that the speed or capacity is being downgraded.

The new service due date must be within 30 days of the due date of the disconnection of the old service, unless the installation is delayed due to Company reasons;

New minimum service period applies to the new service,

The customer agrees to pay all outstanding recurring and nonrecurring charges (these charges will not be included in the new service pricing plan); and

Applicable nonrecurring charges apply and are the charges in effect at the time the service is changed.

Example: 5 year Term Plan: Previous Order: 1000Mb UNI Port @ \$800.00 + 50Mb EVC/OVC @ \$530/ea + Gold 50MB QoS @\$470.00 = \$1,800.00. Total monthly recurring revenue over 5 years is \$108,000.00. Customer decreases from 50Mb EVC/OVC in month 24, to a 20Mb EVC @ \$420 and decreases to Silver 20MB QoS @ 51.00 along with original 1000MB UNI Port @ \$800.00 = \$1,271.00. The customer must commit the circuit to a new 5 year term for a total monthly recurring revenue over 5 years of \$76,260.00. The remaining value of the previous order (36 months) is \$64,800. The new 5 year commitment is greater than the required 115% of the remaining value (\$64,800) of the existing term plan, so no termination liability applies.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line (Cont'd)(D) Fixed Rate Term Plans

The following Fixed Rate Term Plans (FRTPs) are available for EVPL service. These plans are described in detail in 7.2.10 (D) (5), (6), (7) and (8):

Service Element Term Plan- 7 Year Term
Bandwidth Profile Plan – Monthly and 12, 24, 36 and 60 Month Term
High Volume Based Plan – 7 Year Term
Low Volume Based Plan – 7 Year Term

The Service Element Term Plan is available for customers who generally have only one EVC/OVC. The Bandwidth Profile Plan is available for customers who want a pricing advantage to order multiple EVC/OVC's. The High Volume Based Plan is available for customers who purchase a minimum of 1,896 locations during the first calendar year. The Low Volume Based Plan is available for customers who purchase a minimum of 100 locations during the first calendar year.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)

The customer may move the EVPL circuit and replace it with another EVPL circuit at a different location during the term commitment without early termination liability charges provided (1) the customer agrees to retain the new EVPL circuits at the new location for the remainder of the 7 term period; (2) the relocated EVPL circuit is of equal or greater value to the one being removed; (3) customer submits the orders for the disconnection of the existing EVPL circuit and the installation of the new EVPL circuit at the new location at the same time; and (4) the new EVPL must be ordered under the same term plan as the existing circuit being disconnected.

If the provisions set forth in the previous paragraph are not met, then termination liability charges, set forth in (3) following, will apply for the customer's failure to satisfy the term commitment period requirement for their committed port connections.

Nonrecurring charges will not apply to EVPL arrangements installed under the High Volume and Low Volume Based Plans. Monthly rates for the entire term commitment period of the FRTP will not be increased by the Company for the term commitment period for each EVPL arrangement.

At the end of the term commitment period, the customer may subscribe to a new EVPL commitment period or to month-to-month rates. If the customer does not notify the Company in writing within 60 calendar days prior to the expiration of their term commitment period, the commitment period, rates and conditions in effect at the time of expiration will automatically renew.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(1) Upgrades

Customers who subscribe to a DS3 Fixed Rate Term Plan (FRTP) under Section 7 preceding or an EVPL TDP in (C) preceding may upgrade those services to an EVPL FRTP without incurring termination liability charges. The time in service under the DS3 FRTP or EVPL TDP will count toward the minimum term commitment period of the FRTP. For example, if a customer upgrades their DS3 FRTP after 24 months to the FRTP, they will have 60 months remaining in the EVPL FRTP. The customer must upgrade to a minimum circuit bandwidth capacity of 50 Mbps.

Customers may upgrade existing speed or capacity for EVPL port connections, QoS and EVC (i.e., 50 Mbps to 100 Mbps; 100 Mbps to 1 Gbps) without incurring termination liability charges and time in service under the existing EVPL service will count toward the term commitment period for the new EVPL arrangement.

(2) Downgrades

The customer may subsequently decrease existing speed or capacity for EVPL port connections, QoS and EVC/OVC (i.e., 100 Mbps to 50 Mbps; 1 Gbps to 100 Mbps) as low as the previously configured speed without being assessed termination liability. If the customer chooses to decrease the existing speed or capacity to a lower bandwidth than what was on the previous order prior to the expiration date of the FRTP, termination liability will apply. However, if the total monthly recurring revenue of the new service is equal to or greater than 115% of the remaining value of the existing term plan, no termination liability will apply.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans(2) Downgrades (Cont'd)

The customer must note on the order that the speed or capacity is being downgraded.

The new service due date must be within 30 days of the due date of the disconnection of the old service, unless the installation is delayed due to Company reasons;

New minimum service period applies to the new service,

The customer agrees to pay all outstanding recurring and nonrecurring charges (these charges will not be included in the new service pricing plan); and

Applicable nonrecurring charges apply and are the charges in effect at the time the service is changed.

Example: 7 year High Volume Based Plan: Previous Order: 1000Mb UNI Port @ \$3,726.00 + 4 – 100Mb EVCs @ \$25/ea = \$3,826.00. Total monthly recurring revenue over 7 years is \$321,384.00. Customer decreases from 1000Mb port in month 24, to a 700Mb UNI Port @ \$3,145 + 4 – 100Mb EVCs @ \$25/ea = \$3,245.00. The customer must commit the circuit to a new 7 year term for a total monthly recurring revenue over 7 years of \$272,580. The remaining value of the previous order (60 months) is \$229,560. The new 7 year commitment is greater than the required 115% of the remaining value (\$229,560) of the existing term plan, so no termination liability applies.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(3) Termination Liability

Except where termination liability is waived as set forth in this section, if during the term of the Fixed Rate Term Plan (FRTTP) the customer disconnects an EVPL arrangement prior to the expiration of the 7 year minimum commitment period, termination liability charges will apply as follows:

- (a) an amount equal to 100% of monthly recurring charges for each EVPL arrangement disconnected for the months remaining for year 1 of the 7 year term commitment period of the FRTTP, if any, plus
- (b) an amount equal to 50% of monthly recurring charges for each EVPL arrangement disconnected for the months remaining in year 2 through year 5 of the 7 year term commitment period of the FRTTP, if any, plus
- (c) an amount equal to 20% of monthly recurring charges for each EVPL arrangement disconnected for the months remaining in year 6 through year 7 of the 7 year term commitment period of the FRTTP.

The following example illustrates how the Company will calculate the applicable termination liability charges.

Example:

A customer discontinues an EVPL arrangement committed to the FRTTP in month 20 of the 7 year minimum term commitment period. Using an illustrative monthly recurring rate of \$1800.00 for the EVPL arrangement, the Company would bill the customer termination liability charges totaling \$44,640.00.

$$\text{\$1800.00 @ 50\%} = \text{\$900.00} \times 40 \text{ months} = \text{\$36,000.00}$$

$$\text{\$1800.00 @ 20\%} = \text{\$360.00} \times 24 \text{ months} = \text{\$8,640.00}$$

$$\text{\$36,000.00} + \text{\$8,640.00} = \text{\$44,640.00}$$

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(3) Termination Liability

Should the customer choose to discontinue fixed period service prior to completion of the minimum service period of the Bandwidth Profile, termination charges will apply. The termination charge is 100% of the minimum billing level for the remaining months of the minimum service period, plus 40% for EVPL, of the remaining portion of the fixed period service. Should the customer choose to discontinue fixed period service after the completion of the minimum service period, termination charges equal to 40% for EVPL, of the minimum billing level for the remaining portion of the fixed period service will apply. For example, if an EVPL customer discontinues a service after completing 17 months of a 36-month term, the termination charge will be the minimum billing level for the service, multiplied by 40%, multiplied by 19 months.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(4) Chronic Interruption

For purposes of the Fixed Rate Term Plan (F RTP), a Chronic Interruption is defined as (1) an interruption in service due to a failure on the core portion of the EVPL network on four (4) or more separate occasions of five (5) minutes or more each, or twenty-four (24) hours or more in the aggregate, in any calendar month; or (2) both EVC/OVCs do not meet network latency, jitter or packet delivery performance standards provided in 7.2.10(E)(2) following in any three (3) separate months during any period of six (6) consecutive months.

When a customer orders EVPL under a F RTP and a Chronic Interruption occurs with respect to EVPL, the Company will provide to the customer, within ten (10) calendar days of the last interruption or within a month after any failure to meet the network latency, jitter or packet delivery performance standards, a detailed report with respect to such interruptions on the EVPL service that will include the root causes of such interruptions, remedial actions being taken to prevent similar future interruptions and timelines for the completion of such actions. The Company will provide bi-weekly written updates on the progress of such remedial actions until completed to the reasonable satisfaction of the customer. The timeline for the completion of such remedial actions will not exceed thirty (30) days. If after the completion of such remedial actions an interruption or performance failure occurs on the same EVPL service, or the Company fails to complete such remedial action within such thirty (30) day period, the customer may terminate the affected EVPL service without incurring early termination liability charges, upon providing written notice of such termination to the Company within twelve (12) months of the date of the last interruption or failure to meet the network latency, jitter or packet delivery performance standards triggering a Chronic Interruption.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(5) Service Element Term Plan

A Service Element Term Plan is available for EVPL service and applies to UNI and NNI port connections, EVC/OVC connections and QoS. This plan provides the customer discounted rates for the rate elements listed below.

The customer orders the EVPL Service Element Term Plan under a term commitment period of 7 years. In order for a circuit to be eligible for Service Element Term Plan pricing, the customer must commit a UNI and/or NNI port connection to the Service Element Term Plan. All EVPL circuits ordered under the Service Element Term Plan will begin in month one.

The monthly rates for EVPL service under a Service Element Term Plan are set forth in 17.5.10 following.

Although the customer commits the UNI and NNI port connections to the Service Element Term Plan, the following rate elements will receive Service Element Term Plan rates:

- UNI Port Connection
- NNI Port Connection
- External NNI Port Connection
- EVC/OVC Connection
- QoS
- ICO NNI Trunking Arrangement

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(6) Bandwidth Profile Plan (BWP)

The Bandwidth Profile is the standard EVPL offering which uses the native Ethernet protocol to connect multiple enterprise locations with the customer's premises.

A monthly rate is assessed per Bandwidth Profile (BWP) subscribed to and the term plan chosen (12, 24, 36 and 60 month) as set forth in 17.5.11, following. Customers may subscribe to the following:

- a. Customer Premises Network Interface (NI) - The Company network interface is the point of interconnection between Company communications facilities and terminal equipment or other customer-provided facilities. The network interface is the point of demarcation on the customer's premises where the Company's responsibility for the provision of EVPL Service ends.
- b. EVPL Port - A nonrecurring charge applies per new EVPL Port. A nonrecurring charge for an EVPL Port will also be assessed when an electrical port is changing to an optical port or an optical port is changing to an electrical port. Exception: there will be no charge if a customer goes from one electrical port to another electrical port or from one optical port to another optical port. Customers may choose to connect to an electrical 10/100 port or an electrical or optical 1,000 Mbps or 10,000 Mbps port on the Company network.

The following options are available:

- 10 Mbps Ports: 3 Mbps, 5 Mbps, 7 Mbps and 10 Mbps
- 100 Mbps Ports: 3 Mbps, 5 Mbps, 7 Mbps, 10 Mbps, 20 Mbps, 30 Mbps, 40 Mbps, 50 Mbps, 60 Mbps, 70 Mbps, 80 Mbps, 90 Mbps and 100 Mbps
- 1,000 Mbps Ports: 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, 600 Mbps, 700 Mbps, 800 Mbps, 900 Mbps and 1,000 Mbps (1 Gbps)
- 10,000 Mbps Ports: 2 Gbps, 3 Gbps, 4, Gbps, 5 Gbps, 6 Gbps, 7 Gbps, 8 Gbps, 9 Gbps and 10 Gbps (Available where facilities exist)

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(6) Bandwidth Profile Plan (BWP)

- c. Network to Network (NNI) Port Connection - The Network to Network (NNI) Port Connection is the interface between distinct CENs operated by one or more customers. The NNI Port Connection is available at operating speeds of 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).
- d. Ethernet Virtual Connections (EVCs) or Operator Virtual Connections (OVCs) - Each EVPL Port provided by the Company will come standard with the capability to provide an Ethernet Virtual Connection (EVC) or Operator Virtual Connection (OVC). An EVC is associated with a UNI port type, an OVC is associated with an ENNI port type. Customers may order more than one EVC or OVC per port. The Company will bill a monthly EVC or OVC charge per port that the EVC or OVC terminates on, at rates set forth in 7.15.4.A.2.c., following.
- e. Quality of Service (QoS) - Quality of Service (QoS) allows customers to prioritize their traffic managed through the Company's EVPL Service. Rates are set forth in 17.5.10, following.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(7) High Volume Based Plan

The High Volume Based Plan is available for EVPL service and requires the customer to purchase a minimum of 1,896 locations of EVPL service from the Brightspeed Local Operating Companies during the first calendar year they participate in the plan. The High Volume Based Plan includes the UNI Bandwidth Port, NNI Port and Gold QoS Service. EVC's are a separate rate and are offered on a 7 year term. The rates in effect when a circuit is installed are the rates that apply for the entire 7 year term, rate changes that occur after the installation of a circuit do not apply to existing circuits. The rates apply only to the customer locations specified in this service guide. The High Volume Based Plan provides the customer discounted rates for the rate elements listed below.

The customer orders the EVPL High Volume Based Plan under a term commitment period of 7 years. In order for a circuit to be eligible for High Volume Based Plan pricing, the customer must commit the UNI Bandwidth Port and NNI Port to the plan. All EVPL circuits ordered under the High Volume Based Plan will begin in month one.

The monthly rates for EVPL service under the High Volume Based Plan are set forth in 17.5.11 following.

Although the customer commits the UNI Bandwidth Port and NNI Port to the High Volume Based Plan, the following rate elements will receive the High Volume Based Plan rates:

- UNI Bandwidth Port (includes Gold QoS)
- NNI Port (no charge)
- EVC Connection
- OAM EVC
- ICO NNI Trunking Arrangement

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(D) Fixed Rate Term Plans (Cont'd)(8) Low Volume Based Plan

The Low Volume Based Plan is available for EVPL service and requires the customer to purchase a minimum of 100 locations of EVPL service from the Brightspeed Local Operating Companies during the first calendar year they participate in the plan. Special construction charges may apply. The Low Volume Based Plan includes the UNI Bandwidth Port, NNI Port and Gold QoS Service. EVC's are a separate rate and are offered on a 7 year term. The rates in effect when a circuit is installed are the rates that apply for the entire 7 year term, rate changes that occur after the installation of a circuit do not apply to existing circuits. The rates apply only to the customer locations specified in this service guide. The Low Volume Based Plan provides the customer discounted rates for the rate elements listed below.

The customer orders the EVPL Low Volume Based Plan under a term commitment period of 7 years. In order for a circuit to be eligible for Low Volume Based Plan pricing, the customer must commit the UNI Bandwidth Port and NNI Port to the plan. All EVPL circuits ordered under the Low Volume Based Plan will begin in month one.

The monthly rates for EVPL service under the Low Volume Based Plan are set forth in 17.5.11 following.

Although the customer commits the UNI Bandwidth Port and NNI Port to the Low Volume Based Plan, the following rate elements will receive the Low Volume Based Plan rates:

UNI Bandwidth Port (includes Gold QoS)
NNI Port
EVC Connection
ICO NNI Trunking Arrangement

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line (Cont'd)(E) Service Level Agreement

Service Level Agreements (SLAs) will be applied on a per Quality of Service (QoS) basis for Ethernet Virtual Connections (EVCs); traffic representing the different QoS (i.e., Gold, Silver or Best Effort) transported across the same EVC (measured between two NIDs) will have different SLAs. Details of the technical measurements and performance results methodologies for each commitment are provided in the Technical Publications set forth in 7.12.2 following.

In accordance with 7.2.10(E)(4) following, credits are available for missed commitments to customers who purchase EVPL. Credits only apply for portions of the service provided by the Company.

- Repair Commitment

The Repair Commitment is measured on a per occurrence basis for each EVC for all QoS. A Fault Report is produced through the Company reporting system that aids identification of potential outage durations upon which credits may be provided.

- Network Service Level Commitments

The Network Service Level Commitments are measured on the monthly performance of the EVPL network during a specific calendar month by QoS. A SLA report is produced through the Company reporting system that provides details of missed Network Service Level Commitments by QoS upon which credits may be provided upon a specific calendar month's performance results.

The Company's performance measurement data for the Repair Commitment and Network Service Level Commitments will be collected and calculated utilizing the Company's internal processes. The Company's calculation of its performance will be consistent with the Company's obligations to provide a credit for a missed performance commitment set forth following for SLA credits.

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement (Cont'd)(1) SLA DefinitionsTime to Repair

Time to Repair measures the duration of the interruption on the customer's EVPL for all QoS. This measurement will require the customer to report the problem to the Company. For EVPL, an interruption is defined as a condition that renders an EVPL circuit completely unavailable for use by the customer (i.e., the network is incapable of accepting and delivering customer data).

The repair interval will start with the time the trouble ticket is created and end when the fault is remediated. The SLA measurement will be based on each individual trouble ticket for a customer's connection. Time for scheduled maintenance windows as set forth in 7.12.1 following does not count towards SLA threshold.

The SLA will be calculated for each individual interruption. An example of the calculation is displayed below:

Example: Based on 15 hours of interruption

Total MRC of \$1,200.00 * 3/30 = Credit amount of \$120.00

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7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement(1) SLA Definitions (Cont'd)Network Availability

Network Availability measures the percentages of time by QoS during a calendar month that the customer's service is available.

The SLA will be calculated by QoS by taking the total number of minutes in a day times the number of calendar days in a month, minus the number of minutes of interruption during the month divided by the number of minutes in a day times the number of calendar days in the month. The Company will not round up to the next nearest percent in order to meet the Network Availability service level commitment of 99.995%. Excluded from the outage time and service time are scheduled maintenance windows, set forth in 7.12.1 following, and the time the network was unavailable due to circumstances outside of Company's control, as set forth in 7.2.10(E)(3) following. An example of the calculation is displayed below:

Example: $1440 * 30 = 43200$; $43200 - 1200 = 42000$,
 $42000 / 43200 = 97.222\%$

Total MRC of \$1,200.00 * 3/30 = Credit amount of \$120.00

Network Latency

Network Latency measures average two-way delay (including link insertion delays, propagation delays and queuing delays in the network) in milliseconds within the EVPL access service area.

This SLA will be calculated for each QoS, except for Best Effort, by averaging the measured latency of "in-band" test frames for each eligible QoS within the EVPL network (i.e., between each pair of connections on a NID to NID basis) during a calendar month. An example of the calculation is displayed below:

Example: Monthly average was 12 ms (round-trip).

Total MRC of \$1,200 * 3/30 = Credit amount of \$120.00

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement(1) SLA Definitions (Cont'd)Jitter

Jitter measures the variance in frame delay (in milliseconds) between two performance test frames as measured at the ingress and egress NIDs for Gold and Silver QoS.

This SLA will be calculated for the Gold and Silver QoS by averaging the measured jitter of "in-band" test frames for each of the customer's eligible QoS queue within the EVPL (i.e., between each pair of connections) during a calendar month. An example of the calculation is displayed below:

Example: Monthly average was 5 ms.

Total MRC of \$1,200 * 3/30 = Credit amount of \$120.00

Packet Delivery

Packet Delivery measures the percentage of packets conforming to the committed EVC bandwidth successfully delivered across the network (i.e. NID to NID) without being dropped or lost.

This SLA will be calculated for each QoS, except for Best Effort, by averaging the measured packet delivery of "in-band" test frames for eligible QoS within the EVPL network (i.e., between each pair of connections) during a calendar month. An example of the calculation is displayed below:

Example: Monthly average was 98%

Total MRC of \$1,200 * 3/30 = Credit amount of \$120.00

(2) The Company's Service Level Commitments for EVPL are as follows:

Time to Repair

- Best Effort QoS – Not applicable
- Silver QoS – 4 hours or less
- Gold QoS – 4 hours or less

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement (Cont'd)

- (2) The Company's Service Level Commitments for EVPL are as follows:

Time to Repair

- Best Effort QoS – Not applicable
- Silver QoS – 4 hours or less
- Gold QoS – 4 hours or less

Network Availability

- Best Effort QoS – Not Applicable
- Silver QoS – 99.95% or greater
- Gold QoS – 99.995% or greater

Latency (two-way)

- Best Effort QoS – Not Applicable
- Silver QoS – 20 milliseconds or less
- Gold QoS:
 - 10 ms or less (routes up to 225 one-way air miles)
 - 12 ms or less (routes of 225 to 315 one-way air miles)
 - 14 ms or less (routes of 316 to 405 one-way air miles)
 - Increase by 2 ms for every 90 one-way air miles exceeding 405 miles.

Jitter

- Best Effort QoS – Not Applicable
- Silver QoS – 4 milliseconds
- Gold QoS – 1 millisecond or less

Packet Delivery

- Best Effort QoS – Not Applicable
- Silver QoS – 99.95% or greater
- Gold QoS – 99.995% or greater

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement (Cont'd)(3) SLA Obligations

The Company SLAs are defined in (1) and (2) preceding and are in addition to the following:

- A customer must subscribe to the Gold or Silver QoS that is provided with reporting to receive credits for missed service level commitments; and
- Credits are not provided for a partial month service; and
- A customer's account must be current to receive a credit.

(a) When an SLA Credit Does Not Apply

SLA credits do not apply when any stated objective is not met because the Company does not have control over the circumstances causing the objective to be missed or when the missed objective is not caused by the Company's negligence or fault. Situations over which the Company does not have control, include, but are not limited to, the following:

- any negligence or willful misconduct on the part of the customer, its agents or contractors;
- labor difficulties, governmental orders, civil commotions, acts of civil or military authority, embargoes, epidemics, declared National Emergencies, criminal actions against the Company, war, terrorist acts, riots, insurrections, fires, explosions, nuclear accidents, power blackouts, acts of God (including, but not limited to, earthquakes, floods or unusually severe weather) or other circumstances beyond the Company's control;
- when it is necessary for the Company to perform preventive maintenance and software upgrades and the EVPL service will be unavailable during the period of time when the preventive maintenance is being performed;
- the customer's premises equipment, including customer owned power and environmental conditions, located on the customer's premises; and
- unavailability of the customer's facilities caused by the customer or any third party.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement(3) SLA Obligations (Cont'd)(b) When an SLA Credit Applies

When the Company has not provided a SLA credit, the customer may request a SLA credit. A customer request for a Network Service Level SLA credit must be submitted on a standard request form issued by the Company that includes the month the SLA commitment was missed, accurate identifications of the affected circuit and the observed measurement of the specific SLA that was missed. A customer request for a Repair SLA credit must be submitted on a standard request form issued by the Company that includes the month the SLA commitment was missed, accurate identification of the affected circuit and the trouble ticket number of the repair request.

The Company will investigate customer requests for any SLA credits to determine the cause of any performance failures reported by the customer. The Company will investigate the customer's request over a period of up to 45 calendar days. The 45-day period will begin when the customer makes the request for credit with the Company representative.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement (Cont'd)(4) SLA Credits for Ethernet Virtual Connections (EVCs) with Reporting

The following credits will apply when the Company misses a SLA on any single QoS as described following. A maximum of one credit for each SLA will be applied monthly per EVC for a SLA not met for any QoS that is supported by the customer's QoS profile.

Time to Repair:

- 0 to 4 hours per incident: no credit.
- Over 4 hours to 24 hours per incident: a credit equal to 3/30 of the monthly recurring charges for all the rate elements associated with the affected EVC.
- Each additional 24-hour period, per incident: credit an additional amount equal to 3/30 of the monthly recurring charges for all the rate elements associated with the affected EVPL service.

Network Availability: a credit equal to 3/30 of the monthly recurring charges for all the rate elements associated with the affected EVPL service.

Network Latency: a credit equal to 3/30 of the monthly recurring charges for all rate elements associated with the affected EVPL service.

Jitter: a credit equal to 3/30 of the monthly recurring charges for all the rate elements associated with the affected EVPL service.

Packet Delivery: a credit equal to 3/30 of the monthly recurring charges for all rate elements associated with the affected EVPL service.

The SLA credit amount will be determined by applying the credits outlined above to the rate elements or total billed revenues specified following.

ACCESS SERVICE

7. Special Access Service7.2 Rate Regulations7.2.10 Ethernet Virtual Private Line(E) Service Level Agreement(4) SLA Credits for Ethernet Virtual Connections (EVCs) with Reporting (Cont'd)

The total credits issued for all SLAs for a specific EVC during a single bill period may not exceed the total monthly recurring charges billed for all the rate elements associated with that EVPL service. Credits are not provided for partial month service.

- (a) Time to Repair Credit - The service level commitment measurement will be based on each individual trouble ticket for a customer's connection. Multiple trouble tickets on the same day for the same customer connection will only be eligible for one time to repair credit. The SLA credit will apply to the monthly recurring charges for all the rate elements associated with the affected EVPL service.
- (b) Network Availability Credit – The service level commitment measurement will be based on a specific calendar month's performance. The credit will apply for each EVC that does not meet the availability commitment. The SLA credit will apply to the monthly recurring charges for all the rate elements associated with the affected EVPL service.
- (c) Latency Credit – The service level commitment measurement will be based on a specific calendar month's performance. The credit will apply for each EVC that does not meet the latency commitment for any eligible QoS. The SLA credit will apply to the monthly recurring charges for all the rate elements associated with the affected EVPL service.
- (d) Jitter Credit – The service level commitment measurement will be based on a specific calendar month's performance. The credit will apply for each EVC that does not meet the jitter commitment for any eligible QoS. The SLA credit will apply to the monthly recurring charges for all the rate elements associated with the affected EVPL service.
- (e) Packet Delivery Credit – The service level commitment measurement will be based on a specific calendar month's performance. The credit will apply for each EVC that does not meet the packet delivery commitment for any eligible QoS. The SLA credit will apply to the monthly recurring charges for all the rate elements associated with the affected EVPL service.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.3 Surcharge for Special Access Service7.3.1 General

Special Access Services provided under this service guide may be subject to the monthly Special Access Surcharge.

7.3.2 Application

- (A) The Special Access Surcharge will apply to each interstate Special Access Service that terminates on an end user's PBX or other device, where through a function of the device, the Special Access Service interconnects to the local exchange network. Interconnection functions include, but are not limited to, wiring and software functions, bridging, switching or patching of calls or stations. The Surcharge will apply irrespective of whether the interconnection function is performed in equipment located at the customer's premises or in a Centrex CO-type switch.
- (B) Special Access Service will be exempted from the Surcharge by the Company upon receipt of the customer's written certification for the following Special Access Service terminations:
- (1) an open-end termination in a Company switch of an FX line, including CCSA and CCSA-equivalent ONALs; or
 - (2) an analog channel termination that is used for radio or television program transmission; or
 - (3) a termination used for TELEX service; or
 - (4) a termination that by the nature of its operating characteristics could not make use of Company common lines such as, terminations which are restricted through hardware or software; or
 - (5) a termination that interconnects either directly or indirectly to the local exchange network where the usage is subject to Carrier Common Line charges such as, where the Special Access Service accesses only FGA and no local exchange lines, or Special Access Service between customer points of termination, or Special Access Service connecting CCSA or CCSA-type equipment (inter-machine trunks); or
 - (6) a termination that the customer certifies to the Company is not connected to a PBX or other device which interconnects the Special Access Service to a local exchange subscriber line.

ACCESS SERVICE

7. Special Access Service7.3 Surcharge for Special Access Service (Cont'd)7.3.3 Exemption of Special Access Service

- (A) Special Access Services which are terminated as set forth in 7.3.2(B) preceding will be exempted from the Special Access Surcharge if the customer provides the Company with written exemption certification. The certification may be provided to the Company as follows:
- at the time the Special Access Service is ordered or installed;
 - at such time as the service is re-terminated to a device which does not interconnect the service to local exchange facilities; or
- (B) The exemption certification is to be provided by the customer ordering the service. The certification must be signed by the customer or authorized representative and include the category of exemption, as set forth in 7.3.2(B) preceding, for each termination, and the date which the exemption is effective.
- (C) The customer shall also notify the Company when an exempted Special Access Service is changed or re-terminated such that the exemption is no longer applicable.
- (D) The Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Company may withhold exemption of the service until the questions are resolved.

ACCESS SERVICE

7. Special Access Service7.3 Surcharge for Special Access Service (Cont'd)7.3.4 Rate Regulations

- (A) The surcharge will apply as set forth in 7.3.2(A) preceding, except that a surcharge will be assessed on a per voice grade equivalent basis for Special Access Services derived from High Capacity Special Access Services as illustrated in the following example:

<u>Special Access Service</u>	<u>Voice Grade Equivalent</u>		<u>Surcharge</u>	=	<u>Monthly Charge</u>
DS1	24	x	\$25		\$600.00

The preceding example illustrates the maximum number of surcharges applicable to a DS1. If the customer claims exemption(s) as set forth in 7.3.3 preceding or, is not utilizing all available voice grade equivalents and has spare capacity, the number of surcharges would be reduced accordingly.

In the case of multipoint Special Access Services, one Special Access Surcharge will apply for each termination of a Special Access Channel at an end user's premises.

- (B) The Company will bill the appropriate Special Access Surcharge to the ordering customer for each interstate Special Access Service installed unless exemption certification is provided as set forth in 7.3.3 preceding.
- (C) If a written certification is not received at the time the Special Access Service is obtained, the Surcharge will be applied. Exempt status will become effective on the certification date indicated by the customer, subject to the regulations set forth in (D) following.
- (D) Crediting the Surcharge

The Company will cease billing the Special Access Surcharge when certification, as set forth in 7.3.3. preceding, is received. If the status of the Special Access Service was changed prior to receipt of the exemption certification, the Company will credit the customer's account, not to exceed ninety (90) days, based on the effective date of the change as specified by the customer in the letter of certification.

7.4 Reserved For Future Use7.5 Reserved For Future Use

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1]7.6.1 Basic Channel Description

A Voice Grade channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated as two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Telephone Company hub or hubs, or between a customer designated premises and a WATS Serving Office (WSO).

Voice Grade Special Access Services are typically used for voice and voiceband data applications. Typical examples of voice grade circuits are Foreign Exchange lines (station end only), multipoint private line, voice trunk type, two-point voice grade data (one-way or simultaneous two-way), multipoint voice grade data, and voice grade telephoto or facsimile. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Voice Grade Service are as set forth in Section 17 following.

7.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.1.1 following. Compatible network channel interfaces are set forth in 15.1.2 following.

7.6.3 Optional Features and Functions(A) Central Office Bridging Capability

- (1) Voice Bridging (two-wire and four-wire)
- (2) Data Bridging (two-wire and four-wire)
- (3) Telephoto Bridging (two-wire and four-wire)
- (4) DATAPHONE Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(A) Central Office Bridging Capability (Cont'd)

- (5) Telemetry and Alarm Bridging
 - Split Band, Active Bridging
 - Passive Bridging
 - Summation, Active Bridging

The rates for these options are set forth in Section 17 following.

(B) Reserved for Future Use(C) Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for these options are set forth in Section 17 following.

For two-point services, the parameters apply to each service as measured end-to-end. For multipoint services, the parameters apply as measured on each mid-link or as measured on each end link. C-Type conditioning and Data Capability may be combined on the same service.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(C) Conditioning (Cont'd)(1) C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion and envelope delay distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are delineated in Technical Reference TR-TSY-000335.

(2) Improved Attenuation Distortion*

Improved Attenuation Distortion upgrades the frequency versus loss limits of the channel. The technical specifications for Improved Attenuation Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

(3) Improved Envelope Delay Distortion*

Improved Envelope Delay Distortion upgrades the frequency versus delay response limits of the channel. The technical specifications for Improved Envelope Delay Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

* Improved Attenuation Distortion and Improved Envelope Delay Distortion will continue to be provided to all customers who were provided with either or both of these optional features in conjunction with C-Type Conditioning prior to May 4, 1988.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(C) Conditioning (Cont'd)(4) Data Capability (D Conditioning)

Data Capability provides transmission characteristics suitable for data communications. Specifically, Data Capability provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or three-point multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

When a service equipped with Data Capability is used for voice communications, the quality of the voice transmission may not be satisfactory.

(5) Telephoto Capability

Telephoto Capability provides transmission characteristics suitable for telephotographic communications. Specifically, Telephoto Capability is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

(6) Sealing Current Conditioning

Sealing Current Conditioning is provided to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type network channel interfaces.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(D) Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range on effective four-wire transmission. The ranges are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

(E) Improved Return Loss

- (1) On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following
- (2) On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(F) Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service. The rate for this option is set forth in Section 17 following.

The following network channel interfaces for Voice Grade service do not require signaling capability: AH, DA, DB, DD, DE, DS, NO, PR and TF.

The following network channel interfaces for Voice Grade service require signaling capability: AB, AC, CT, DX, DY, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF. The signaling capability charge will not apply when used in the provision of WATS access service.

(G) Selective Signaling Arrangement

An arrangement that permits code selective ringing for up to ten codes on a multipoint service. The rate for this option is set forth in Section 17 following.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(H) Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of an access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to another channel that terminates in either the same or a different customer premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option. The rate for this option is set forth in Section 17 following.

(I) Public Packet Switching Network (PPSN) Interface Arrangement

An arrangement that provides the interface requirements that permit a Voice Grade service to interface with a Public Packet Switching Network packet switch located in a Telephone Company premises.

(J) Four-Wire/Two-Wire Conversions

When a customer requests that an effective four-wire channel be terminated with a two-wire channel interface at the customer designated premises, a four-wire to two-wire conversion is required. The customer will be charged the four-wire Channel Termination rate as set forth in Section 17 following when an effective four-wire is specified in the order for service. The rate for the conversion is included as part of the basic four-wire Channel Termination rate.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.6 Voice Grade Service ^[1] (Cont'd)7.6.3 Optional Features and Functions (Cont'd)(K) Improved Two-Wire Voice Transmission(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 280 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +6.0 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than:

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	35 dBrnc0
51 to 100	37 dBrnc0
101 to 200	40 dBrnc0
201 to 400	43 dBrnc0
401 to 1000	45 dBrnc0

(4) Return Loss

The Return Loss, expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is equal to or greater than:

ERL	13.0 dB
SRL	6.0 dB

The rate for the provision of Improved Two-Wire Voice Transmission is included as part of the basic Channel Termination rate.

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.7 Program Audio Service ^[1]7.7.1 Basic Channel Description

A Program Audio channel is a channel with bandwidth measured in Hz for the transmission of a complex signal voltage. The actual bandwidth is a function of the channel interface selected by the customer. Only one-way transmission is provided. Program Audio channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Program Audio Special Access services are typically used in full-time and part-time applications for radio broadcasting, noncommercial educational audio, and wired music. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Program Audio Service are as set forth in Section 17 following.

7.7.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.1.1 following. Compatible network channel interfaces are set forth in 15.1.2 following.

7.7.3 Optional Features and Functions

(A) Central Office Bridging Capability
Distribution Amplifier

(B) Gain Conditioning
Control of 1004 Hz AML at initiation of service to 0 dB ± 0.5 dB.

(C) Stereo
Provision of a pair of gain/phase equalized channels for stereo applications. (An additional Program Audio channel must be ordered separately.)

The table set forth in 15.1.1 following shows the technical specifications packages with which the optional features and functions are available.

^[1] Effective February 1, 2020 Program Audio Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.8 Digital Data Service ^[1]7.8.1 Basic Channel Description

A Digital Data channel is a channel for duplex four-wire transmission of synchronous serial data at the rate of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0* Kbps. The actual bit rate is a function of the channel interface selected by the customer. The channel provides a synchronous service with timing provided by the Telephone Company through the Telephone Company's facilities to the customer in the received bit stream. Digital Data channels are provided as either hubbed or non-hubbed services between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs. The hubs providing hubbed digital service and the wire centers providing non-hubbed digital service are identified in National Exchange Carrier Association, Inc., Wire Center Information, Tariff F.C.C. No. 4.

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Rates and charges for Special Access Digital Data Service are as set forth in Section 17 following.

7.8.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.1.1 following. Compatible channel interfaces are set forth in 15.1.2 following.

* When 64.0 Kbps service is multiplexed on a DS1 High Capacity service, the DS1 must be equipped to provide Clear Channel Capability.

[1] Effective February 1, 2020 Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.8 Digital Data Service ^[1] (Cont'd)7.8.2 Technical Specifications Packages and Network Channel Interfaces (Cont'd)

The following network channel interfaces (NCIs) define the bit rates that are available for a Digital Data channel:

<u>NCI</u>	<u>Bit Rate</u>
DU-24	2.4 Kbps
DU-48	4.8 Kbps
DU-96	9.6 Kbps
DU-19	19.2 Kbps
DU-56	56.0 Kbps
DU-64	64.0 Kbps

7.8.3 Optional Features and Functions

The Optional Features and Functions described in (A), (B), and (C) following are only available where Digital Data Service is provided via a hub. The Optional Features and Functions described in (D) following are available where Digital Data Service is provided on a non-hubbed basis.

(A) Central Office Bridging Capability

Bridging is not available on a 64.0 Kbps channel.

(B) Transfer Arrangement

An arrangement that affords the customer an additional measure of protection and/or flexibility in the use of their access channel(s) on a 1xN basis. The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. This arrangement is only available at a Telephone Company designated hub. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as a part of the option.

^[1] Effective February 1, 2020 Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.8 Digital Data Service^[1] (Cont'd)7.8.3 Optional Features and Functions (Cont'd)(C) Public Packet Switching Network (PPSN) Interface Arrangement

An arrangement that provides the interface requirements that permit a Digital Data Service to interface with a Public Packet Switching Network packet switch located in a Telephone Company premises. The interface is compatible with X.25 and X.75 packet switching protocols as defined by the CCITT.

The table set forth in 15.1.1 following shows the technical specifications packages with which the optional features and functions are available.

(D) Public Packet Data Service Interface Arrangement

An arrangement that provides for the interface requirements that permit a Digital Data Service to interface with a Public Packet Data switch located in a Telephone Company premises. The interface is compatible with Frame Relay packet switching protocols. The interface is only available for 56.0 kbps and 64.0 kbps rates.

The table set forth in 15.1.1 following shows the technical specifications packages with which the optional features and functions are available.

^[1] Effective February 1, 2020 Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service7.9.1 Basic Channel Description

A High Capacity channel is a channel for the transmission of nominal 64.0 Kbps* or 1.544, or 44.736 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs. In addition, 1.544 Mbps and 44.736 Mbps High Capacity Service channels may be provided between a customer designated premises and a Telephone Company designated ADSL Access Service Connection Point. ⁽¹⁾

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

A High Capacity STS1 channel is a channel for the transmission of 51.84 Mbps synchronous transport signals. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Company hub or hubs.

Rates and charges for Special Access High Capacity Service are as set forth in Section 17 following.

The channel termination rate element for STS1 services may vary based on distance. The mileage used to determine the monthly rate for channel terminations located outside a Company Central Office is the airline distance between the customer's designated premises and the Company's serving wire center. The mileage measurement is determined by utilizing exchange maps and mileage tables located in designated Company offices for such purposes.

Synchronous Transport Signal Level 1 (STS1) channels provide for the SONET transmission of 51.84 Mbps of data. The signal consists of overhead and a Synchronous Payload Envelope (SPE). The overhead portion of the signal is used for controlling, framing and maintaining the signal. The SPE contains the customer information.

STS1 is provisioned over the Company's SONET network and may be configured in a two point arrangement (i.e., both ends of the channel are STS1 channel terminations) or connected to an OC level SONET service or hubbed to an STS1/DS1 Multiplexer.

Customers ordering STS1 service must specify the interface requested (i.e., STS1 interface or DS3 interface) and how the signal is to be formatted (i.e., STS1, STS1 with VT1.5 mapping, or STS1 with DS3 mapping). An STS1 with VT1.5 mapping can be multiplexed to 28 DS1s using the STS1/DS1 Multiplexing optional feature set forth in 7.2.8(D)(4) following. Virtual Tributary (VT) mapping is a SONET structure designed for the transport of sub-STS1 payloads. A DS1 is mapped into the SONET format using a VT1.5 as a packaging mechanism that is internal to the SONET signaling.

* Available only as a channel of a 1.544 Mbps facility to a Telephone Company Digital Data hub or as a cross connect of two 2.4, 4.8, 9.6, 56.0 or 64.0 Kbps channels of two 1.544 Mbps facilities to a Digital Data hub(s). The customer must provide system and channel assignment data.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service (Cont'd)7.9.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.1.1 following. Compatible channel interfaces are set forth in 15.1.2 following.

The following network channel interfaces (NCIs) define the bit rates that are available for a High Capacity channel:

<u>NCI</u>	<u>Bit Rate</u>
DS-15*	1.544 Mbps (DS1)
DS-44	44.736 Mbps (DS3)

* A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps channel to a Telephone Company hub.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service (Cont'd)7.9.3 Optional Features and Functions(A) Automatic Loop Transfer

The Automatic Loop Transfer provides protection on a 1xN basis against failure of the facilities between a customer designated premises and the wire center serving that premises. Protection is furnished through the use of a switching arrangement that automatically switches to a spare channel line when a working line fails. The spare channel is not included as a part of the option. This option requires compatible equipment at both the serving wire center and the customer designated premises. The customer is responsible for providing the equipment at its designated premises. Equipment at the customer designated premises will be provided under tariff only if it existed in the Telephone Company inventory as of November 18, 1983.

(B) Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service (Cont'd)7.9.3 Optional Features and Functions (Cont'd)(C) Central Office Multiplexing(1) DS3 to DS1

An arrangement that converts a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

(2) DS1 to Voice

An arrangement that converts a 1.544 Mbps channel to 24 channels for use with Voice Grade Services. A channel(s) of this DS1 to the Hub can also be used for a Digital Data Service.

(3) DS1 to DS0

An arrangement that converts a 1.544 Mbps channel to 23 64.0 Kbps channels utilizing digital time division multiplexing.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service (Cont'd)7.9.3 Optional Features and Functions (Cont'd)(C) Central Office Multiplexing (Cont'd)(4) DS0 to Subrate

An arrangement that converts a 64.0 Kbps channel to subspeeds of up to twenty 2.4 Kbps, ten 4.8 Kbps, or five 9.6 Kbps channels using digital time division multiplexing. The table set forth in 15.1.1 following shows the technical specifications packages with which the optional features and functions are available.

(D) Clear Channel Capability (CCC)

- (1) CCC is an arrangement that allows a customer to transport 1.536 Mbps information rate signals over a 1.544 Mbps High Capacity channel or over a 1.544 Mbps High Capacity channel derived from a multiplexed 44.736 Mbps High Capacity channel with no constraint on the quantity or sequence of one and zero bits. This arrangement requires the customer signal at the channel interface to conform to Bipolar with Eight Zero Substitution (B8ZS) line code as described in Technical Reference TR-NPL-000054 and Technical Reference TR-INS-000342.
- (2) CCC is provided, subject to availability of facilities, on DS1/1.544 Mbps High Capacity channels between two customer designated premises and on multiplexed DS3/44.736 Mbps High Capacity channels or multiplexed DS1/1.544 Mbps High Capacity channels*between a Telephone Company hub office and a customer designated premises. The wire centers providing CCC are identified in National Exchange Carrier Association, Inc., Wire Center Information, Tariff F.C.C. No. 4.
- (3) The CCC optional feature may be ordered at the same time the High Capacity service is ordered or it may be ordered as an addition to an existing High Capacity Service. The customer must agree to out-of-service periods required to add this feature to an existing High Capacity Service. The charges for the CCC optional feature are as set forth in 7.2.2(C)(3) preceding.

* Available only on a DS1-to-Digital multiplexed configuration.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.9 High Capacity Service (Cont'd)7.9.3 Optional Features and Functions (Cont'd)(E) Shared SONET Ring Interoffice Transport

- (1) Shared SONET Ring Interoffice Transport (SSRIT) is a non-chargeable optional feature which provides interoffice transmission of a DS3 High Capacity Service over SONET- based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around a point of failure by switching to a protect path to ensure the flow of services between locations within the self-healing ring.
- (2) Shared SONET Ring Interoffice Transport is provided for the interoffice portion of DS3 High Capacity Service, subject to availability of SONET ring facilities. The wire centers offering Shared SONET Ring Interoffice Transport are identified in National Exchange Carrier Association, Inc., Wire Center Information, Tariff F.C.C. No. 4.
- (3) The Shared SONET Ring Interoffice Transport optional feature may be ordered at the same time the DS3 High Capacity service is ordered or it may be ordered as an addition to an existing DS3 High Capacity Service. The customer must agree to out-of-service periods required to add this feature to an existing DS3 High Capacity Service. The charges for the Shared SONET Ring Interoffice Transport optional feature are set forth in 7.10.3 (D) following.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.10 Synchronous Optical Channel Service

Effective March 1, 2022 the following Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

7.10.1 Basic Channel Description

A Synchronous Optical Channel Service (SOCS) channel provides dedicated transport utilizing Synchronous Optical Network (SONET) transmission standards. Synchronous Optical Channel Service provides optical network capability to customers requiring connections at transmission rates of 155.52 Mbps (OC3), 622.08 Mbps (OC12), 2.5 Gbps (OC48) and 10 Gbps (OC192). Synchronous Optical Channel Service is provided between two customer designated premises (CDP) through one or more Company wire centers, or between a CDP and a wire center equipped with Add/Drop Multiplexing (ADM). In addition, customers at an ADM equipped wire center may add or drop bandwidth capacity from the synchronous optical channel for delivery to a customer designated premises, Public Packet Data Network Service, or another wire center.

Synchronous Optical Channel Service may also be provided between a customer designated premises and a Company designated DSL Access Service Connection Point. When a customer orders SOCS, the customer and the Company will work cooperatively to plan, engineer, provision and manage the SOCS.

Each channel will be configured with one working and one protect fiber pair within the same sheath between the CDP and the serving wire center of the CDP which provides redundancy to protect the customers service. Should a failure occur, the SONET technology will automatically switch the customer's transmission to the dedicated fiber pair

The customer may provide node and port equipment at the CDP which allows the high-speed optical carrier channel to be converted to an electrical signal at a lower speed. The provision of such equipment by the customer is subject to compatibility with the Company's equipment in the serving wire center and must comply with the standards specified in GR-253-CORE.

The Synchronous Optical Channel is available in a non-concatenated format which provides three individual signals. The Synchronous Optical Channel is also available in a concatenated format which provides a single signal appropriate for data transmissions.

A term discount is available for Synchronous Optical Channel Service rate elements and optional features and functions.

Synchronous Optical Channel Service is available at the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Rates and charges for Synchronous Optical Channel Service are set forth in 17.6.9 following.

ACCESS SERVICE

7. Special Access Service7.10 Synchronous Optical Channel Service ⁽¹⁾ (Cont'd)7.10.2 Network Channel Interfaces

Compatible channel interfaces for Synchronous Optical Channel Service are set forth in 15.1.2 following.

The following network channel interfaces (NCIs) define the bit rates that are available for a synchronous optical channel:

<u>NCI</u>	<u>Bit Rate</u>	
FCF-B	155.52 Mbps	(OC3, OC3c)
FCF-D	622.08 Mbps	(OC12/OC12c)
FCF-F	2.5 Gbps	(OC 48/OC48c)
FCF-G	10 Gbps	(OC192)

7.10.3 Optional Features and Functions(A) Customer Node

A customer node charge applies when the Company provides terminal equipment at the customer designated premises for termination of a Synchronous Optical Channel Service Channel Termination. Such equipment may be used to convert the signal from an optical to electrical format. The customer node charge is determined by the level of optical signal (i.e., OC3, OC3c, OC12, OC12c, OC48, OC48c or OC192) delivered to the premises. Each Customer Node must be configured with one or more Customer Premises Ports.

Rates and charges for the Customer Node are as set forth in 17.6.9(D)(1) following.

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

ACCESS SERVICE

7. Special Access Service7.10 Synchronous Optical Channel Service7.10.3 Optional Features and Functions (Cont'd)(B) Customer Premises Port

Customer Premises Port charges apply in conjunction with the Customer Node charge. Each Customer Premises Port provides the interface to derive a lower capacity service at the customer premises. The type and quantity of ports is determined by the customer and is based on the type of Customer Node selected and the number of DS1, DS3, STS-1 and/or OC3/OC3c etc. channels ordered. Customer Premises Ports are available at the following speeds:

<u>Customer Premises Ports</u>	<u>Speed</u>
Ethernet Level	10, 20, 50, 100, 150, 300, 450 and 600 Mbps and 1 Gbps
OC192	10 Gbps
OC48, OC48c	2.5 Gbps
OC12, OC12c	622.08 Mbps
OC3, OC3c	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

Rate and charges for the Customer Premises Port are set forth in 17.6.9 (D)(2) following.

ACCESS SERVICE

7. Special Access Service7.10 Synchronous Optical Channel Service7.10.3 Optional Features and Functions (Cont'd)(C) Add/Drop Multiplexing

An Add/Drop Multiplexing Central Office Port charge applies to the interface provided at the Company wire center for the purpose of adding or dropping lower capacity services from Synchronous Optical Channel Service Channel Termination or Channel Mileage transport facilities. Central Office Ports are available at the following speeds:

<u>Central Office Port</u>	<u>Speed</u>
Ethernet Level	10, 20, 50, 100, 150, 300, 450 and 600 Mbps and 1 Gbps
OC192	10 Gbps
OC48, OC48c	2.5 Gbps
OC12, OC12c	622.08 Mbps
OC3, OC3c	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

OC192 service may only be multiplexed to OC48/OC48c. OC48 service may only be multiplexed to OC12/OC12c. OC12 service may only be multiplexed to OC3/OC3c channels.

When an OC48/OC12/OC3 channel is derived from an OC192/OC48/OC12 service and is further multiplexed to obtain DS3 service, a DS3 port charge will apply in addition to the OC48/OC12/OC3 Port charge.

When a DS3 channel is derived from an OC3 service and is further multiplexed to obtain DS1 service, a DS3 to DS1 Multiplexing charge as set forth in 17.6.9(D)(3) will apply in addition to the DS3 port charge.

When a DS1 channel is directly derived from an OC3 service, a DS1 port charge will apply.

ACCESS SERVICE

7. Special Access Service7.10 Synchronous Optical Channel Service7.10.3 Optional Features and Functions (Cont'd)(D) Shared SONET Ring Interoffice Transport

- (1) Shared SONET Ring Interoffice Transport (SSRIT) is a non-chargeable optional feature which provides interoffice transmission of a Synchronous Optical Channel Service over SONET- based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around a point of failure by switching to a protect path to ensure the flow of services between locations within the self-healing ring.
- (2) Shared SONET Ring Interoffice Transport is provided for the interoffice portion of Synchronous Optical Channel Service, subject to availability of SONET ring facilities. The wire centers offering Shared SONET Ring Interoffice Transport are identified in National Exchange Carrier Association, Inc., Wire Center Information, Tariff F.C.C. No. 4.
- (3) The Share SONET Ring Interoffice Transport optional feature may be ordered at the same time the Synchronous Optical Channel Service is ordered or it may be ordered as an addition to an existing Synchronous Optical Channel Service. The customer must agree to out-of-service periods required to add this feature to an existing Synchronous Optical Channel Service. The charges for the Shared SONET Ring Interoffice Transport optional feature are set forth in 7.10.3 (D) (1) preceding

(E) SONET Regeneration

Due to technical limitations of SONET facilities, additional regeneration equipment may be required for essential detection and retransmission of SONET signals between nodes. Additional regeneration equipment will only be provided by the Company when the actual fiber facility distance between the nodes exceeds SONET design limits. A monthly recurring SONET Regeneration charge, as set forth in 17.6.9(D)(6) following, will apply for each regenerator required for the provision of SONET service.

(F) Service Reconfiguration

If a new service reconfiguration is requested subsequent to the initial activation, a nonrecurring service reconfiguration charge will apply on a per service basis, as set forth in 17.6.9(D)(7) following. The service reconfiguration charge is in addition to all applicable customer node and customer premise ports associated with the new configuration.

ACCESS SERVICE

7. Special Access Service (Cont'd)7.11 Ethernet Transport7.11.1 Basic Service Description

Ethernet Transport (ET) service is a high speed data transport service that provides point-to-point transmissions of customers' data communications that customers deliver to the Company in a fast packet based ethernet protocol. ET is available at nine transport speeds: 10 Mbps, 20 Mbps, 50 Mbps, 100 Mbps, 150 Mbps, 300 Mbps, 450 Mbps, 600 Mbps, 1 Gbps, 2.5 Gbps and 10 Gbps.

ET is provided on a month-to-month basis or for periods of one, three or five years. When a customer orders ET, the customer and the Company will work cooperatively to plan, engineer, provision and manage the ET circuits. ET is only available where facilities and operating conditions exist.

(A) Ethernet Transport Channel Termination

ET channel terminations may be used to connect the following:

- a customer designated premises to the serving wire center of that premises.

The ET channel termination rate element may vary based on distance. The mileage used to determine the monthly rate for channel terminations located outside a Company Central Office is the airline distance between the customer's designated premises and the Company serving wire center. The mileage measurement is determined by utilizing exchange maps and mileage tables located in designated Company offices for such purposes.

ET channel terminations provided to a customer's designated premises will be installed in a single, common space under Company control. An ET channel termination may not be split between premises or terminated in multiple locations within a premise. The customer must provide suitable floor space, environmental controls and non-switched AC power to support the ET channel termination at the customer's premises location.

ACCESS SERVICE

7. Special Access Service7.11 Ethernet Transport7.11.1 Basic Service Description (Cont'd)(B) Ethernet Transport Channel Mileage

Ethernet Transport (ET) channel mileage provides transport between two Company serving wire centers. Air mileage is measured using V&H coordinates between the Company serving wire centers. The ET channel mileage rates are made up of the Channel Mileage Facility (per mile) rate and the Channel Mileage Termination (fixed) rate.

Rates and charges for ET are set forth in 17.5.9 following.

7.11.2 Technical Specifications

The technical specifications for the protocols transmitted over Ethernet Transport service are delineated in the following technical publications:

<u>Protocol</u>	<u>Publication</u>
10 Mbps Ethernet	ANSI / IEEE X3.802.3
100 Mbps Ethernet	ANSI / IEEE X3.802.3u
1 Gbps Ethernet	ANSI / IEEE X3.802.3z

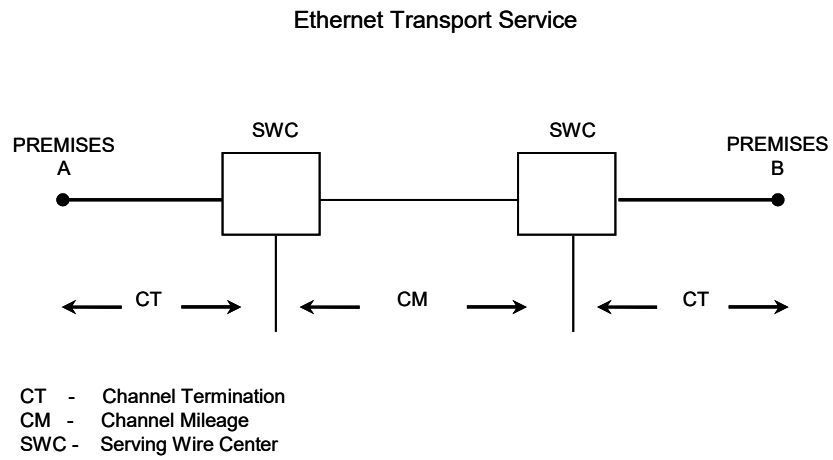
ACCESS SERVICE

7. Special Access Service

7.11 Ethernet Transport (Cont'd)

7.11.3 Service Components

The following diagram depicts a generic view of the components of Ethernet Transport service:



ACCESS SERVICE

7. Special Access Service (Cont'd)7.12 Ethernet Virtual Private Line7.12.1 Basic Service Description

Ethernet Virtual Private Line (EVPL) service provides the ability to order Ethernet service where a single customer connection can support multiple applications with varying Quality of Service (QoS). EVPL is available at transport speeds of: 10 Mbps, 100 Mbps, 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).

EVPL is provided on a monthly basis, under a Term Discount Plan for periods of one, two, three or five years as set forth in 7.2.10(C) preceding or under a Fixed Rate Term Plan for a period of seven years or as specified and set forth in 7.2.10(D) preceding. When a customer orders EVPL, the customer and the Company will work cooperatively to plan, engineer, provision and manage the EVPL circuits. EVPL is only available where facilities and operating conditions exist.

EVPL provides customer capabilities to support different Quality of Service (QoS) (i.e., Gold, Silver and Best Effort) as described in (E) following over the same connection and offers customers increased flexibility to match bandwidth to their real needs for voice, data and video applications on each connection. The customer orders the portion of their EVPL bandwidth that will be allocated for each quality of service.

For each EVPL, the customer's bandwidth will be rate limited or policed to a fixed speed for each QoS level specified in the QoS profile selected for the Ethernet Virtual Connection (EVC).

EVPL service is available 24 hours per day, 7 days per week, except for preventive maintenance. Due to the nature of EVPL it will be necessary to perform preventive maintenance and software updates. This will mean that the EVPL service will be unavailable during the period of time when preventive maintenance is being performed. The Company will provide notice to customers of such maintenance.

(A) User to Network (UNI) Port Connection

The User to Network (UNI) Port Connection is the physical interface or port that is the demarcation between the customer and the service provider. The UNI Port Connection is always provided by the service provider. The UNI Port Connection in a Carrier Ethernet Network (CEN) is a physical Ethernet Interface at operating speeds of 10 Mbps, 100 Mbps, 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).

ACCESS SERVICE

7. Special Access Service7.12 Ethernet Virtual Private Line7.12.1 Basic Service Description (Cont'd)(B) Network to Network (NNI) Port Connection

The Network to Network (NNI) Port Connection is the interface between distinct CENs operated by one or more customers. The NNI Port Connection is available at operating speeds of 10 Mbps, 100 Mbps, 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).

(C) External Network to Network (E-NNI) Port Connection

The External Network to Network (E-NNI) Port Connection is the interface between two Operator CENs that are operated separately. The E-NNI Port Connection is available at operating speeds of 1000 Mbps (1 Gbps) and 10000 Mbps (10 Gbps).

(D) Operator Virtual Connection (OVC)

The OVC is associated with an ENNI port type. Customers may order more than one OVC per port. The Company will bill a monthly OVC charge per port that the OVC terminates on. The EVC is available at speeds of 3 Mbps, 5 Mbps, 7 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, 600 Mbps, 700 Mbps, 800 Mbps, 900 Mbps and 1000 Mbps (1 Gbps).

(E) Ethernet Virtual Connection (EVC)

The EVC connects two or more customer UNI port connections. The EVC prevents data transfer between locations that are not part of the same EVC. The EVC is available at speeds of 3 Mbps, 5 Mbps, 7 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, 700 Mbps and 1000 Mbps (1 Gbps).

EVC reconfigurations performed by the core network under normal operating conditions should occur without packet loss. An EVC is capable of interconnecting with other EVCs of equal bandwidth in the same metropolitan area.

Two EVCs between the same two end points may be purchased by the customer in a configuration utilizing different switching locations for each EVC in order to provide a level of network diversity. In the event of interruption of the network, recovery of at least one EVC will be re-established and data flow will be restored in <50 ms.

ACCESS SERVICE

7. Special Access Service7.12 Ethernet Virtual Private Line7.12.1 Basic Service Description (Cont'd)(F) Quality of Service

The Quality of Service (QoS) is the ability to provide different priority to the various applications of EVPL in order to guarantee a certain level of performance to a data flow. The QoS is available at speeds of 3 Mbps, 5 Mbps, 7 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, 700 Mbps and 1000 Mbps (1 Gbps) and is available in 3 different priority levels described following:

- Gold: The Gold QoS is supported by a low latency queue. The Low Latency Queuing (LLQ) feature in the Ethernet network is used for support of real-time service and is configured for strict priority queuing allowing latency sensitive applications, such as voice, to be sent first. Gold QoS will be marked for expedited handling within the EVPL network.
- Silver: The Silver QoS supports interactive video applications. The Silver QoS is policed to a maximum bandwidth.
- Best Effort: This QoS is the default QoS for other traffic that is not defined as Gold or Silver. Traffic that does not match any other QoS will be mapped as Best Effort. Traffic with the Best Effort QoS will have the lowest priority on the network and will support lower priority data applications, such as email and file transfer protocol (FTP).

EVPL reporting is available to customers who purchase the Gold or Silver QoS EVPL service. EVPL reporting allows customers to view their EVPL network via the use of a web interface and secure connection. EVPL reporting provides alarm surveillance, service level agreement reporting and performance report for the various network components that comprise the customer's EVPL network.

ACCESS SERVICE

7. Special Access Service7.12 Ethernet Virtual Private Line7.12.1 Basic Service Description (Cont'd)(G) OAM EVC

The Operations, Administration and Maintenance (OAM) EVC order in increments of 5Mbps only and may order up to 5 each. The OAM EVC is available for the Bandwidth Based Plan and the High Volume Based Plan only. The OAM EVC will be used solely by the customer for the purposes of their own testing of traffic to determine the operational capability of the circuit that is provisioned to/from a specific location.

Rates and charges for EVPL are set forth in 17.5.11 following.

(H) EVPL Reconfiguration

An EVPL Reconfiguration charge will apply for each Ethernet Virtual Connection (EVC) or Quality of Service (QoS) established initially or when the customer requests the EVC or QoS be reconfigured after the initial set up. The EVPL Reconfiguration charge is in addition to all applicable charges associated with the new configuration.

(I) ICO NNI Arrangement (ICO Trunking Arrangement)

In some cases, the Company and another Incumbent Local Exchange Carrier (ILEC), sometimes also referred to as an Independent Company or ICO, may agree to jointly provide an Ethernet service where such service will be provided to locations in both the Company's and the other ILEC's serving territories. In such cases, the Company and the other ILEC may mutually agree to meet at a location (i.e., customer designated point of interconnection) utilizing facilities suitable for delivery of EVPL service.

The rates and charges for EVPL are applicable for the Company provided portion of such service. The Company is responsible for the ordering, provisioning, billing and maintenance of EVPL up to the customer designated point of interconnection.

Service Level Agreement (SLA) credits in 7.2.10 (E), preceding, will apply for the portion of the service the Company provides.

SLA reporting does not include traffic to or from any ICO NNI Trunking Arrangement

ACCESS SERVICE

7. Special Access Service7.12 Ethernet Virtual Private Line7.12.1 Basic Service Description(I) ICO NNI Arrangement (ICO Trunking Arrangement) (Cont'd)

The ICO NNI Arrangement provides a shared trunk connection from the EVPL Switch to the customer designated point of interconnection that is then connected to the ILEC (ICO) Ethernet switch, for purposes of providing multiple Ethernet Virtual Connections (EVCs) for the same or different customers over this shared facility. The ICO Trunk Connection charge is applied to each EVC that is transported on the ICO NNI Trunking Arrangement.

(J) Channel Mileage/ICO NNI Additional Mileage

EVPL channel mileage and additional mileage charges are applicable to the Bandwidth Based Plan only. The EVPL channel mileage charges apply to EVPL service based on the service speed and when the total distance associated with the data channel exceeds 65 miles between Company serving wire centers. EVPL channel mileage provides transport between two Company serving wire centers. Air mileage is measured using V&H coordinates between the Company serving wire centers. The EVPL channel mileage rate element will be applied on a per mile basis for each mile exceeding the first 65 miles of transport.

The Additional Mileage charge is based on the distance measured from the EVPL switch to the customer designated point of interconnection for mileage and is applicable to each ICO Trunking Arrangement EVC transported across the shared facility.

Rates and charges for EVPL are set forth in 17.5.10 and 17.5.11 following.

For each EVPL arrangement, the customer must decide the mix of applications that will be supported on that EVPL, the QoS mix that the EVPL must support and the bandwidth to be assigned for each QoS. The customer's bandwidth will be limited to the fixed speed associated with each QoS level. Therefore, total bandwidth available to support transmission of a specific QoS will depend upon the size of the customer's EVPL and the specific QoS bandwidth the customer selected for that EVPL.

A customer may select different QoS profiles for different EVPL connections that share the same network LAN, or EVPL network arrangement. However, technical limitations exist that limit the total number of different QoS profiles that can be utilized in a single EVPL network arrangement.

ACCESS SERVICE

7. Special Access Service

7.12 Ethernet Virtual Private Line (Cont'd)

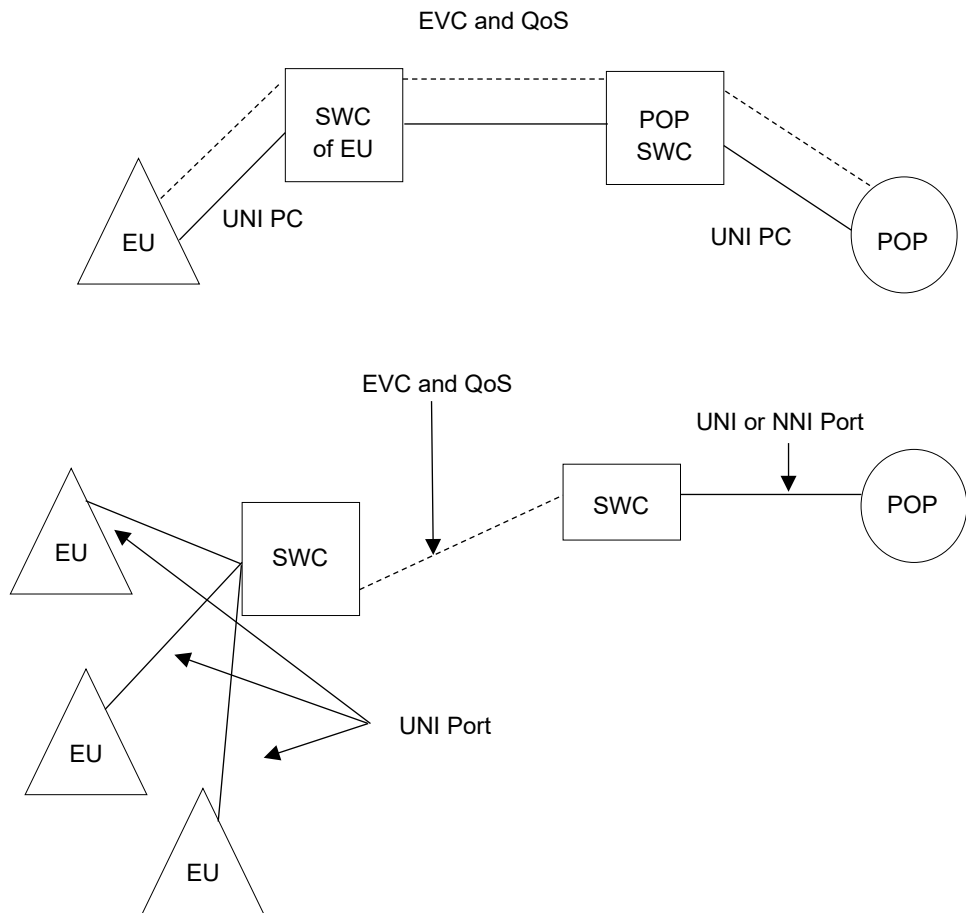
7.12.2 Technical Specifications

The technical specifications for the protocols transmitted over EVPL service are delineated in the following technical publications:

<u>Protocol</u>	<u>Publication</u>
10 Mbps Ethernet	ANSI / IEEE X3.802.3
100 Mbps Ethernet	ANSI / IEEE X3.802.3u
1 Gbps Ethernet	ANSI / IEEE X3.802.3z
	IETF RFC 4090
	ITU-TY.1731

7.12.3 Service Components

The following diagrams depict generic views of the components of EVPL service.



ACCESS SERVICE

7. Special Access Service (Cont'd)7.13 SONET OC Ring ^[1]7.13.1 Basic Service Description

Effective March 1, 2022 the SONET OC Ring Rate Plan with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

(A) Service Description

SONET OC (optical connection) Ring is a dedicated high capacity network (bandwidth) designed to provide the customer reliable functionality for the transmission of voice, data, and video via a self-healing ring topology between multiple customer designated locations and Company central offices. OC3, OC12, OC48 and OC192 SONET OC Ring will be offered using 2-fiber unidirectional path switch ring (UPSR) or 2-fiber bidirectional line switched ring (BLSR) topology. The SONET OC Ring network will consist of fiber optic facilities routed through local, alternative central office, internodal, and/or interoffice channel facilities that transmit DS1, DS3, STS1, OC3, OC3c, OC12, OC12c, OC48 and OC48c channel services simultaneously over primary and alternative diverse paths between customer designated locations and Company central offices. Continuous monitoring of the DS1, DS3, STS1, OC3, OC3c, OC12, OC12c, OC48 and/or OC48c service quality will occur. Detection of a failure within the system will result in automatic self-healing around the point of failure to ensure that the DS1, DS3, STS1, OC3, OC3c, OC12, OC12c, OC48 and/or OC48c services between locations within the SONET OC Ring network will continue.

Current SONET standards do not provide for asynchronous DS3 to DS1 multiplexing. An STS1 channel may be mapped for either one DS3 or 28 DS1s. However, DS1s within a DS3 are not accessible within the SONET architecture, and their performance cannot be guaranteed for this reason. When the customer requests that an OC3, OC12, OC48 or OC192 service be configured with a combination of DS3 and DS1 channels, a DS3 to DS1 or STS1 to DS1 multiplexing arrangement will be required.

SONET OC Ring is provided on a month-to-month basis or for a period of one, three or five years. When ordering SONET OC Ring, the customer and the Company will work cooperatively to plan, engineer, provision and manage the SONET OC Ring. The customer ordering SONET OC Ring must order a minimum of two nodes, one of which must be a customer node and one of which must be a central office node. The maximum number of nodes will be determined by the technical characteristics and capability of the ring configuration requested.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.1 Basic Service Description(A) Service Description (Cont'd)

Customers of SONET OC Ring will need to provide the Company with a matrix detailing the configuration interface assignments desired among the nodes on the dedicated ring. The matrix must provide detail by node, by STS group. This matrix will assist the Company in ensuring that node to node channels are linked appropriately. Customers must provide suitable floor space, controlled environment, and source of non-switched suitable power to support the service.

Where the customer provides two separate entrance facility cable routes for SONET OC Ring, the primary and alternate entrance facilities will be separate and will enter the customer node over such different routes. When the customer requests a connection at a customer node via two local channels and Company facilities do not exist for the second local channel, the Company may provide an equivalent second local channel via an existing alternate route. When facilities become available for the second local channel, the Company may rearrange the alternate route at any time at no charge to the customer.

(B) Service Components(1) Customer Node

Customer nodes provide ring switching capabilities at customer designated locations other than the Company central offices that are part of SONET OC Ring. This rate element offers OC3, OC12, OC48 and OC192 network capacities and is provided with or without Company-provided equipment. Customer node equipment provided by the customer must be compatible with that of the Company. When a customer elects to furnish its own node equipment at the customer's premises, the Company will install a cross-connect device on the Company side of the demarcation point, allowing the customer to connect their node equipment.

When the customer requests that a DS1 channel be connected to an OC48 or OC192 service terminating at a Company central office, a DS3 to DS1 or STS1 to DS1 multiplexing arrangement will be required.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.1 Basic Service Description(B) Service Components (Cont'd)(2) Customer Configuration Interface

A customer configuration interface provides DS1, DS3 and STS1 electrical channelization and/or OC3, OC3c, OC12, OC12c, OC48, OC48c, 10 Mbps, 20 Mbps, 50 Mbps, 100 Mbps, 150 Mbps, 300 Mbps, 450 Mbps, 600 Mbps and 1 Gbps optical channelization that may take place at each customer node of SONET OC Ring. The customer configuration interface rate element applies for every interface capacity that originates or terminates at a customer node. However, when the customer elects to furnish its own terminal equipment at the customer node, the rate for the customer configuration interface does not apply.

(3) Central Office Node

Central office nodes provide ring switching capabilities at Company central offices that are part of SONET OC Ring. This rate element offers OC3, OC12, OC48 and OC192 network capacities.

(4) Central Office Configuration Interface

A central office configuration interface provides DS1, DS3 and STS1 electrical channelization and/or OC3, OC3c, OC12, OC12c, OC48, OC48c, 10 Mbps, 20 Mbps, 50 Mbps, 100 Mbps, 150 Mbps, 300 Mbps, 450 Mbps, 600 Mbps and 1 Gbps optical channelization that may take place at each central office node located on SONET OC Ring. The central office configuration interface rate element applies for every interface capacity that originates or terminates at a central office node.

(5) Local Channel

The local channel provides for the communications path between a customer node and the serving wire center of the premises where the customer node is located. One local channel rate element will apply per customer designated premises for each local channel terminated.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.1 Basic Service Description(B) Service Components(5) Local Channel (Cont'd)

Monthly recurring rates for local channels apply for each air mile increment of the channel. Air mileage is measured using V&H coordinates between nodes. Fractions of an airline mile are rounded up to the next mile. The minimum charge is one airline mile except when the customer designated premises and the serving wire center are located in the same Company building, or where both customer designated premises are in the same building. In those instances, the intra-office channel charge, as set forth in (9) following, will apply in lieu of the one-mile minimum local channel charge.

(6) Alternate Central Office Channel

The alternate central office channel provides for the communications path between a customer node and an alternate central office. The primary central office node and any alternate central office node and applicable configuration interfaces must be associated with the same SONET OC Ring. Monthly recurring rates for alternative central office channels apply for each air mile increment of the channel. Air mileage is measured using V&H coordinates between nodes. Fractions of an airline mile are rounded up to the next mile. The minimum charge is one airline mile.

(7) Interoffice Channel

The interoffice channel provides for the communications path between directly connected Company central offices located on a SONET OC Ring. This rate element does not apply where central office nodes are adjacently connected in the same central office on the same SONET OC Ring for the purposes of providing additional node capacity. Monthly recurring rates for interoffice channels apply for each air mile increment of the channel. Air mileage is measured using V&H coordinates between nodes. Fractions of an airline mile are rounded up to the next mile. The minimum charge is one airline mile.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.1 Basic Service Description(B) Service Components (Cont'd)(8) Internodal Channel

The internodal channel provides for the communications path between two directly connected customer nodes of a given SONET OC Ring located (a) in the same serving wire center area, (b) in the same office park /campus environment or contiguous property located in contiguous serving wire center areas, or (c) in different serving wire center areas. Monthly recurring rates for internodal channels apply for each air mile increment of the channel. Air mileage is measured using V&H coordinates between nodes. Fractions of an airline mile are rounded up to the next mile. The minimum charge is one airline mile.

(9) SONET Regeneration

Due to the technical limitations of SONET facilities, additional regeneration equipment may be required for essential detection and retransmission of SONET signals between nodes. Additional regeneration equipment will only be provided by the Company when the actual fiber facility distance between the nodes exceeds SONET design limits. A monthly recurring SONET Regeneration charge, as set forth in 7.5.8 following, will apply for each regenerator required for the provision of SONET OC Ring.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

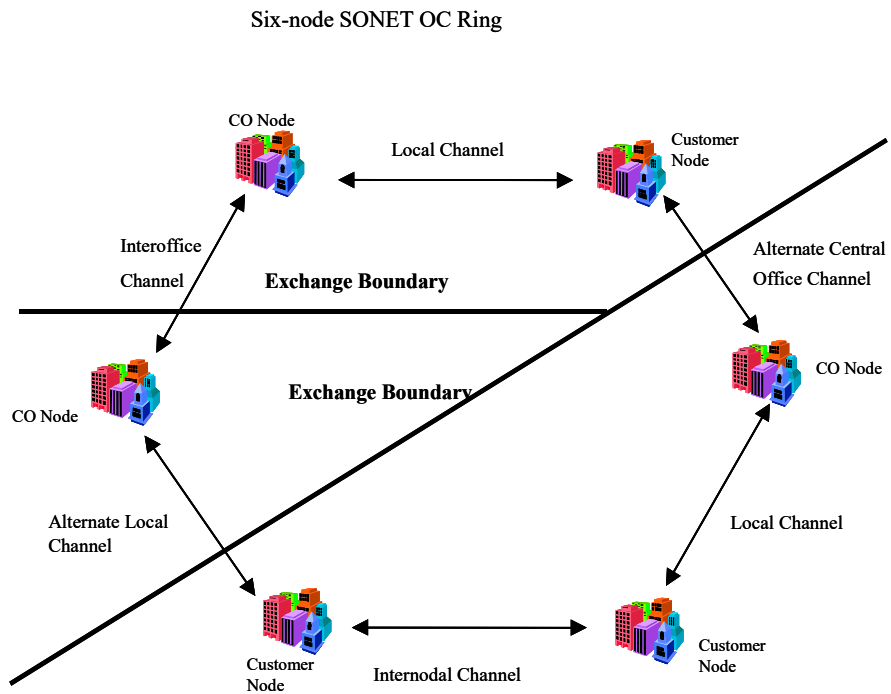
7. Special Access Service

7.13 SONET OC Ring

7.13.1 Basic Service Description

(B) Service Components (Cont'd)

The following diagrams depict generic views of SONET OC Ring:



A customer configuration interface or company configuration interface may apply at each node. The rate element applies for capacity that originates or terminates at a node. Configuration interfaces provide for electrical (DS1, DS3, STS1, OC3c, OC12c) or optical (OC3 and OC12) channelization.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring7.13.1 Basic Service Description (Cont'd)(C) Subtending Rings

SONET OC Ring customers may order subtending rings which utilize bandwidth on an existing primary ring. Subtending rings are available at OC3 and OC12 levels on an OC48 primary ring and at an OC3 level on an OC12 primary ring. The subtending ring must be ordered by the same customer that ordered the primary SONET OC Ring.

Subtending rings do not require both a central office node and customer node, since at least one node will be shared with the primary ring. When nodes are shared on the primary and subtending rings, SONET OC Ring node charges will not apply for the subtending ring. When multiple nodes are shared on the primary and subtending rings, SONET OC Ring channel charges between the shared nodes will not apply for the subtending ring.

Subtending rings are provided for a period of one, three or five years. When ordering subtending rings, the customer and the Company will work cooperatively to plan, engineer, provision and manage the subtending ring.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]Cont'd)7.13.2 Rate Conditions

The rates and charges for SONET OC Ring are set forth in Section 17.6.12, following. The applicable rates for SONET OC Ring include monthly recurring rates and nonrecurring charges, both of which are billed in advance.

- (B) Monthly rates are flat recurring rates that apply each month or fraction thereof that a specific rate element is provided regardless of the amount of usage. For billing purposes, each month is considered to have 30 days.

Monthly recurring rates for local, alternative central office, interoffice, and internodal channels apply for each air mile increment of the channel. Air mileage is measured using V&H coordinates between nodes. Fractions of an airline mile are rounded up to the next mile. The minimum charge is one airline mile, except when the customer designated premises and the serving wire center are collocated in the Company building, or where both customer designated premises are in the same building. In those instances, the intraoffice channel monthly recurring rate would apply rather than the initial one mile minimum.

For internodal channels, monthly recurring charges apply, as appropriate, for the same serving wire center area or contiguous serving wire center areas. Monthly recurring rates for customer and central office nodes apply per node and are based upon the capacity of the ring configuration.

Monthly recurring rates for customer configuration interfaces apply for each origination and each termination of an activated DS1, DS3, STS1, OC3, OC3c, OC12, OC12c, OC48 and/or OC48c at the customer node.

Additionally, customers may disconnect SONET OC Ring, without penalty, should the total of the monthly recurring rates associated with the SONET OC Ring increase. The customer must notify the Company in writing within 90 days after the effective date of the rate increase if they elect to discontinue service.

- (C) Nonrecurring charges apply for the central office node, customer node with Company provided termination equipment, and central office and customer node configuration interface capacity reallocation rate elements. For customers who elect the one year commitment period, the nonrecurring charge for the central office node and customer node with Company provided termination equipment will apply for the installation of the service. However, if at the end of the one year commitment period the customer elects to renew their one year commitment plan, a nonrecurring charge will not apply for the renewal.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.2 Rate Conditions (Cont'd)

- (C) SONET OC Ring is available on a month-to-month basis or for a period of one, three or five years. All SONET OC Ring arrangements will begin in month one. If the customer requests that service be disconnected prior to the expiration of the one, three or five year service period selected, a 50% penalty will be assessed for the remaining months of the term. For example, a customer disconnecting in the 12th month of a 3 year plan will be charged 50% of the remaining 24 months of billing. The Federal Government and its authorized agents are exempt from the 50% penalty charge if service is discontinued prior to the expiration of the one, three or five year minimum commitment period.

Customers may upgrade SONET OC Ring without incurring termination liability charges under the following circumstances:

- (1) The order for the disconnect of the existing SONET OC Ring and the order for the upgraded SONET OC Ring must be received at the same time.
- (2) The new SONET OC Ring is provided between the same customer and central office locations as the discontinued service.
- (3) The service period of the new SONET OC Ring is equal to or greater than the service period of the existing SONET OC Ring.

Additionally, customers may disconnect SONET OC Ring, without penalty, should the total of the monthly recurring rates associated with the SONET OC Ring increase. The customer must notify the Company in writing within 90 days after the effective date of the rate increase if they elect to discontinue service.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring ^[1]7.13.2 Rate Conditions

(C) (Cont'd)

Rate decreases will automatically be applied to the monthly recurring rates for the remainder of the service period. Upon expiration of the one, three or five year minimum commitment period, the customer may renew their SONET OC Ring service at the month-to-month service rates. If the customer does not specify renewal terms in writing 90 days prior to the expiration of the one, three or five year period, month-to-month SONET OC Ring rates in effect at the time of expiration will automatically renew. The customer can terminate SONET OC Ring at the end of the minimum commitment period with no penalty or obligation to continue the service. Further, if the customer notifies the Company in writing 90 days prior to the expiration date of their minimum commitment period with their intent to not renew their SONET OC Ring, the customer will have six (6) months after the expiration date to submit their disconnect order(s). If the customer fails to submit their disconnect order(s), by the end of the six (6) month period, month-to-month rates will automatically renew at the current service guide rates. If the customer submits their disconnect order(s) after the six (6) month period, termination liability charges will apply. Termination liability charges will be calculated at 50 % of the monthly recurring charges for the remaining months of the commitment period up to a maximum of twelve (12) months. Time from the expiration of the original commitment period until the disconnect order(s) are received will apply for calculation of the termination liability charges.

(D) Special Construction charges, as set forth in Brightspeed Local Operating Companies Tariff F.C.C. No. 5, may apply where facilities and/or operating conditions do not permit the provision of SONET OC Ring and the customer desires the Company to provision the SONET OC Ring.

Customers may be required to pay special construction charges when a four fiber optical service configuration is requested in lieu of the two fiber UPSR topology or two fiber BLSR topology for OC3, OC12, OC48 and OC192 SONET OC Ring.

Where dual entrance facilities currently exist to a customer premises, special construction charges will not be assessed when the customer requests connection at both entrance facilities.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

7. Special Access Service7.13 SONET OC Ring (Cont'd)7.13.3 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.1.1 following. Compatible channel interfaces are set forth in 15.1.2 following.

The following network channel interfaces (NCIs) define the bit rates that are available:

<u>NCI</u>	<u>Bit Rate</u>
SO--, SM--	155.52 Mbps (OC3)
SO--, SM--	622.08 Mbps (OC12)
SO--, SM--, SN--	2488.32 Mbps (OC48)
QB--, SO--, SM--, SN--, SP--, SQ--	9953.28 Mbps (OC192)

ACCESS SERVICE

7. Special Access Service (Cont'd)7.14 Optical Wavelength Service (OWS)7.14.1 Basic Service Description

Optical Wavelength Service (OWS) is a high speed data transport service that provides point-to-point transmissions of data communications that customers deliver to the Company utilizing shared Dense Wave Division Multiplexing (DWDM) technology available at speeds of: 1 Gbps, 2.5 Gbps, 10 Gbps, 40 Gbps and 100 Gbps.

OWS is provided on a month-to-month basis or for periods of one, three or five years. When a customer orders OWS, the customer and the Company will work cooperatively to plan, engineer, provision and manage the OWS circuits. OWS is only available where facilities and operating conditions exist.

.There are two basic rate categories which apply to Special Access Service:

- Channel Terminations
- Channel Mileage

(A) OWS Channel Termination

OWS channel terminations may be used to connect the following:

- a customer designated premises to the serving wire center of that premise.

The OWS channel termination rate element may vary based on distance. The mileage used to determine the monthly rate for channel terminations located outside a Company Central Office is the airline distance between the customer's designated premises and the Company serving wire center. The mileage measurement is determined by utilizing exchange maps and mileage tables located in designated Company offices for such purposes

OWS channel terminations provided to a customer's designated premises will be installed in a single, common space under Company control. One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Company building. An OWS channel termination may not be split between premises or terminated in multiple locations within a premise. The customer must provide suitable floor space, environmental controls and non-switched AC power to support the OWS channel termination at the customer's premises location. The Channel Termination is the interface located at the Central Office that allows OWS to connect to the following Company services: SONET, ET, or EVPL.

ACCESS SERVICE

7. Special Access Service7.14 Optical Wavelength Service (OWS)7.14.1 Basic Service Description (Cont'd)(B) OWS Channel Mileage

OWS channel mileage provides transport between two Company serving wire centers. Air mileage is measured using V&H coordinates between the Company serving wire centers. The OWS channel mileage rates are made up of the Channel Mileage Facility (per mile) rate and the Channel Mileage Termination (fixed) rate.

Available in the following interfaces:

- 10 Gbit LAN Channel
- 10 Gbit WAN Channel
- Gbit Ethernet Channel
- SONET Channel (OC3, OC12, OC48, OC192)
- 10.709 Gbit OTU2 Channel
- 2.666 Gbit OTU1 Channel
- 111.810 Gbit OTU4 Channel
- 100GbE Ethernet Channel
- 43.018 Gbit OTU3 Channel

7.14.2 Rate Regulations

The rates and charges for OWS service are set forth in the following and are in addition to any applicable rates and charges set forth in any other sections of this service guide. Nonrecurring charges and monthly recurring rates applicable for OWS service are billed in advance.

(A) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a Special Access Service is provided. For billing purposes, each month is considered to have 30 days.

(B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Special Access Service are: installation of service and service rearrangements. These charges are in addition to the Access Order Charge as specified in 17.1.5 following.

ACCESS SERVICE

7. Special Access Service7.14 Optical Wavelength Service (OWS)7.14.2 Rate Regulations(B) Nonrecurring Charges (Cont'd)(1) Installation of Service

Nonrecurring charges apply to each service installed. The nonrecurring charges for the installation of service are set for each channel type as a nonrecurring charge for the Channel Termination.

(2) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service.

Changes to pending orders are set forth in 5.4 preceding.

Changes in the physical location of the point of termination or customer designated premises are moves as set forth following.

Changes in the type of Service or Channel Termination which result in a change of the minimum period requirement will be treated as a discontinuance of the service and an installation of a new service.

Changes in ownership or transfer of responsibility from one customer to another will be treated as a discontinuance of the service and an installation of a new service. In the event the change in ownership or transfer of responsibility is as set forth in 2.1.2(A) preceding where there is no change in facilities or arrangements, the change will be treated as an administrative change.

ACCESS SERVICE

7. Special Access Service7.14 Optical Wavelength Service (OWS)7.14.2 Rate Regulations (Cont'd)

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name;
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment;
- Change in billing data (name, address, or contact name or telephone number);
- Change of agency authorization;
- Change of customer circuit identification;
- Change of billing account number;
- Change of customer test line number;
- Change of customer or customer's end user contact name or telephone number; and
- Change of jurisdiction.

All other service rearrangements will be charged as follows:

- If the change involves the addition of other customer designated premises to an existing service, the nonrecurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge as set forth in 17.1.5 following.

Moves

Regulations for Moves for OWS are set forth in Section 7.2.3, preceding.

ACCESS SERVICE

7. Special Access Service7.14 Optical Wavelength Service (OWS)7.14.2 Rate Regulations (Cont'd)Pricing Plans

OWS service is available on a month-to-month basis or for a period of one, three or five years. All OWS arrangements will begin in month one. If the customer requests that the service is disconnected prior to completion of the minimum service period of 12 months, termination liability charges equal to 100% of the total monthly recurring charges for the remaining months of the minimum service period plus 70% of the total monthly recurring charges for the remaining months of the term. Any termination after the minimum service period of 12 months termination liability charges equal to 70% of the remaining months of the term will apply. For example, a customer disconnecting in the 12th month of a 3 year plan will be charged 70% of the remaining 24 months of billing. The Federal Government and its authorized agents are exempt from the 50% termination liability penalty charge if service is discontinued prior to the expiration of the one, three or five year minimum commitment period.

Additionally, customers may disconnect OWS service, without penalty, should the total monthly recurring rates associated with OWS service increase by 10% or more at any one time. The customer must notify the Company in writing within 90 days after the effective date of the rate increase if they elect to discontinue service. Rate decreases will automatically be applied to the monthly recurring rates for the remainder of the service

If the customer does not specify renewal terms in writing 90 days prior to the expiration of the one, three or five year period, the commitment period and OWS service rates in effect at the time of expiration will automatically renew. Alternatively, 90 days prior to the expiration of the one, three or five year period the customer may specify in writing their intent to continue use of the services under month-to-month rates. The customer can terminate OWS service at the end of the minimum commitment period with no penalty or obligation to continue the service. Further, if the customer notifies the Company in writing 90 days prior to the expiration date of their minimum commitment period with their intent to not renew their OWS service, the customer will have six (6) months after the expiration date to submit their disconnect order(s). If the customer fails to submit their disconnect order(s), by the end of the six (6) month period, the commitment period in effect at the time of the original expiration period will automatically renew at the current service guide rates. If the customer submits their disconnect orders(s) after the six (6) month period, termination liability charges will apply. Termination liability charges will be calculated at 50% of the monthly recurring charges for the remaining months of the commitment period up to a maximum of twelve (12) months. Time from the expiration of the original commitment period until the disconnect order(s) are received will apply for calculation of the termination liability charges.

ACCESS SERVICE

7. Special Access Service7.14 Optical Wavelength Service (OWS)7.14.2 Rate Regulations (Cont'd)Upgrades

Customers may upgrade OWS without incurring termination liability charges under the following circumstances:

- (1) The order for the disconnect of the existing OWS and the order for the upgraded OWS must be received at the same time.
- (2) The new OWS is provided between the same customer and central office locations as the discontinued service.
- (3) The service period of the new OWS is equal to or greater than the service period of the existing OWS service.

Termination Liability – Downgrades

If the customer chooses to decrease the existing speed or capacity to a lower bandwidth than what was on the previous order prior to the expiration date of the fixed period service rate plan, termination liability will apply. However, if the customer commits to a new term discount plan and if the total monthly recurring revenue of the new service is equal to or greater than 115% of the remaining value of the existing term plan, no termination liability will apply.

The customer must note on the order that the speed or capacity is being downgraded.

The new service due date must be within 30 days of the due date of the disconnection of the old service, unless the installation is delayed due to Company reasons.

New minimum service period applies to the new service,

The customer agrees to pay all outstanding recurring and nonrecurring charges (these charges will not be included in the new service pricing plan); and

Applicable nonrecurring charges apply and are the charges in effect at the time the service is changed.

Service Guarantee Regulations are set forth in Section 2.4.4, preceding.

ACCESS SERVICE

8. Reserved For Future Use

ACCESS SERVICE

9. Reserved For Future Use

ACCESS SERVICE

10. Reserved For Future Use

ACCESS SERVICE

11. Special Facilities Routing of Access Services11.1 Description

The services provided under this service guide are provided over such routes and facilities as the Company may elect. Special Facilities Routing is involved when, in order to comply with requirements specified by the customer, the Company provides Special Access Service in a manner which includes one or more of the following conditions:

In order to avoid the compromise of special routing information, the Company will provide the required routing information for each specially routed service to only the ordering customer. If requested by the customer, this information will be provided when service is installed and prior to any subsequent changes in routing.

The rates and charges for Special Facilities Routing of Access Services are developed on an individual case basis, and are in addition to all other rates and charges that may be applicable for services provided under other sections of this service guide.

11.1.1 Diversity

Two or more circuits must be provided over not more than two different physical routes.

11.1.2 Avoidance

A circuit(s) must be provided on a route which avoids specified geographical locations.

11.1.3 Diversity and Avoidance Combined

For each service provided in accordance with Section 11.1.1 and Section 11.1.2 preceding, combined, the rates and charges will be developed on an individual case basis.

ACCESS SERVICE

12. Specialized Service or Arrangements12.1 General

Specialized Service or Arrangements may be provided by the Company, at the request of a customer, on an Individual Case Basis if such service or arrangements meet the following criteria:

- The requested service or arrangements are not offered under other sections of this service guide.
- The facilities utilized to provide the requested service or arrangements are of a type normally used by the Company in furnishing its other services.
- The requested service or arrangements are provided within a LATA.
- The requested service or arrangements are compatible with other Company services, facilities, and its engineering and maintenance practices.
- This offering is subject to the availability of the necessary Company personnel and capital resources.

Rates and charges and additional regulations if applicable, for Specialized Service or Arrangements are provided on an Individual Case Basis.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services

In this section, normally scheduled working hours are an employee's scheduled work period in any given calendar day (e.g., 8:00 a.m. to 5:00 p.m.) for the application of rates based on working hours.

A Miscellaneous Service Order charge as described in 5.4.2 preceding may be applicable to services ordered from this section.

13.1 Additional Engineering

Additional Engineering, including engineering reviews as set forth in 5.4.3 preceding, will be undertaken only after the Company has notified the customer that additional engineering charges apply as set forth in Section 17 following, and the customer agrees to such charges.

Additional Engineering will be provided by the Company at the request of the customer only when:

- (A) A customer requests additional technical information after the Company has already provided the technical information normally included on the Design Layout Report (DLR) as set forth in 7.1.6 preceding.
- (B) Additional Engineering time is incurred by the Company to engineer a customer's request for a customized service as set forth in 7.1.2 preceding.
- (C) A customer requested Design Change requires the expenditure of Additional Engineering time. Such Additional Engineering time is incurred by the Company for the engineering review as set forth in 5.4.3 preceding. The charge for additional engineering time relating to the engineering review, which is undertaken to determine if a design change is indeed required, will apply whether or not the customer authorizes the Company to proceed with the Design Change. In this case the Design Change charge, as set forth in Section 17 following, does not apply unless the customer authorizes the Company to proceed with the Design Change.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.2 Additional Labor

Additional Labor is that labor requested by the customer on a given service and agreed to by the Company as set forth in 13.2.1 through 13.2.5 following. The Company will notify the customer that Additional Labor charges as set forth in Section 17 following will apply before any additional labor is undertaken. A call-out of a Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. When provisioning or restoring Telecommunications Service Priority services, the Company will, when possible, notify the customer of the applicability of these Additional Labor charges.

13.2.1 Overtime Installation

Overtime installation is that Company installation effort outside of normally scheduled working hours.

13.2.2 Overtime Repair

Overtime repair is that Company effort performed outside of normally scheduled working hours.

13.2.3 Standby

Standby includes all time in excess of one-half ($\frac{1}{2}$) hour during which Company personnel standby to make installation acceptance tests or cooperative tests with a customer to verify facility repair on a given service.

13.2.4 Testing and Maintenance with Other Companies

Additional testing, maintenance or repair of facilities which connect other companies is that which is in addition to the normal effort required to test, maintain or repair facilities provided solely by the Company.

13.2.5 Other Labor

Other labor is that additional labor not included in 13.2.1 through 13.2.4 preceding and labor incurred to accommodate a specific customer request that involves only labor which is not covered by any other section of this service guide..

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services13.3.1 Testing Services

Testing Services offered under this section of the service guide are optional and subject to rates and charges as set forth in Section 17 following. A call-out of a Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. Other testing services, as described in 7.1.7 preceding, are provided by the Company in association with Access Services and are furnished at no additional charge.

Testing Services are normally provided by Company personnel at Company locations; however, provisions are made in (B)(2) following for a customer to request Company personnel to perform Testing Services at the customer designated premises.

The offering of Testing Services under this section of the service guide is made subject to the availability of the necessary qualified personnel and test equipment at the various test locations mentioned in (A) and (B) following.

(A) Reserved For Future Use

(B) Special Access Service

The Company will provide assistance in performing specific tests requested by the customer.

(1) Additional Cooperative Acceptance Testing

When a customer provides a technician at its premises or at an end user's premises, with suitable test equipment to perform the requested tests, the Company will provide a technician at its office for the purpose of conducting Additional Cooperative Acceptance Testing on Voice Grade Services. At the customer's request, the Company will provide a technician at the customer's premises or at the end user premises. These tests may, for example, consist of the following:

- Attenuation Distortion (i.e., frequency response)
- Intermodulation Distortion (i.e., harmonic distortion)
- Phase Jitter
- Impulse Noise
- Envelope Delay Distortion
- Echo Control
- Frequency Shift

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services13.3 Miscellaneous Services13.3.1 Testing Services(B) Special Access Service (Cont'd)(2) Additional Manual Testing

The Company will provide a technician at its premises, and the Company or customer will provide a technician at the customer's designated premises with suitable test equipment to perform the requested tests.

(3) Obligation of the Customer

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

13.3.2 Maintenance of Service

(A) When a customer reports a trouble to the Company for clearance and no trouble is found in the Company's facilities, the customer shall be responsible for payment of a Maintenance of Service charge as set forth in Section 17 following for the period of time from when Company personnel are dispatched, at the request of the customer, to the customer designated premises to when the work is completed. Failure of Company personnel to find trouble in Company facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.

(B) The customer shall be responsible for payment of a Maintenance of Service charge when the Company dispatches personnel to the customer designated premises, and the trouble is in equipment or communications systems provided by other than the Company or in detariffed CPE provided by the Company.

In either (A) or (B) preceding, no credit allowance will be applicable for the interruption involved if the Maintenance of Service Charge applies.

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13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.3 Telecommunications Service Priority - TSP

- (A) Priority installation and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services shall be provided in accordance with Part 64.401, Appendix A, of the Federal Communications Commission's (FCC's) Rules and Regulations.

In addition, TSP System service shall be provided in accordance with the guidelines set forth in "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" (NCSH 3-1-2) dated July 9, 1990, and "Telecommunications Service Priority System for National Security Emergency Preparedness Service User Manual" (NCSM 3-1-1).

The TSP System is a service, developed to meet the requirements of the Federal Government, as specified in the Service Vendor's Handbook and Service User's Manual which provides the regulatory, administrative and operational framework for the priority installation and/or restoration of NSEP telecommunications services. These include both Switched and Special Access Services. The TSP System applies only to NSEP telecommunications services, and requires and authorizes priority action by the Company providing such services.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.3 Telecommunications Service Priority - TSP

- (A) Priority installation and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services shall be provided in accordance with Part 64.401, Appendix A, of the Federal Communications Commission's (FCC's) Rules and Regulations.

In addition, TSP System service shall be provided in accordance with the guidelines set forth in "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" (NCSH 3-1-2) dated July 9, 1990, and "Telecommunications Service Priority System for National Security Emergency Preparedness Service User Manual" (NCSM 3-1-1).

The TSP System is a service, developed to meet the requirements of the Federal Government, as specified in the Service Vendor's Handbook and Service User's Manual which provides the regulatory, administrative and operational framework for the priority installation and/or restoration of NSEP telecommunications services. These include both Switched and Special Access Services. The TSP System applies only to NSEP telecommunications services, and requires and authorizes priority action by the Company providing such services.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.4 Provision of Access Service Billing Information

- (A) The customer shall select the medium in which its official access service bills and customer service records are to be provided. This selection shall be made on a per Billing Account Number (BAN) basis and shall be submitted in writing to the Telephone Company. The customer may request that access service billing information be provided via electronic data transfer, on-line bill image, or paper format. Should the customer fail to make a selection, the official copy of the customer's access service bills and customer service records will be provided in paper format. If a customer requests their access bill in multiple formats that includes the paper format, the paper format will be considered the additional or secondary format and will be charged according to 17.6.3(Q).
- (B) At the customer's option, additional copies of the current month's access service bill and/or customer service records will be provided via paper format at the charges specified in 17.6.3(Q) following. Requests for additional copies of the current month's bill and/or customer service records must be submitted in writing and shall specify the medium selected by the customer.

Additional copies of a customer's previous monthly access service bills will be provided via paper format on an individual case basis. Requests for additional copies of previous monthly bills must be submitted in writing and shall specify the bill dates requested and the medium in which the copies are to be provided. The charges for providing additional copies of previous monthly access service bills will be developed by the Telephone Company on an individual case basis.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.4 Provision of Access Service Billing Information (Cont'd)

- (C) Upon acceptance by the Telephone Company of an order for electronic data transfer, the Telephone Company will determine the period of time to implement the transmission of such material on an individual order basis.
- (D) Upon acceptance of an order by the Telephone Company for the on-line bill image format option, the Telephone Company will establish customer access to the Billing Account Number identified by the customer. The on-line bill image option captures and retains invoices on a go-forward basis from the time of initial set-up. Previous bill history will not be available in the on-line bill image format prior to the establishment of the on-line bill image format option by the customer.

The rates and charges for the provision of Access Service Billing Information for other additional or secondary formats are as specified in 17.6.3(Q) following.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.4 Reserved For Future Use

13.5 Reserved For Future Use

13.6 Reserved For Future Use

13.7 Reserved For Future Use

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.8 Billing Name and Address Service13.8.1 General Description

- (A) Billing Name and Address (BNA) Service is the provision by the Company to an interstate service provider who is a customer of the Company of the complete billing name, street address, city or town, state and zip code for a telephone number or calling card account number assigned by the Company. An interstate service provider is defined as an interexchange carrier, an operator service provider, an enhanced service provider or any other provider of interstate telecommunications services.
- (B) BNA Service is provided only for the purposes of allowing customers to bill their end users for telephone services provided by the customer, order entry and customer service information, fraud prevention identification of end users who have moved to a new address, any purpose associated with equal access requirement, and information associated with Local Exchange Carrier (LEC) calling card calls, collect and third party calls.

BNA information may not be resold or used for any other purpose including, but not limited to, marketing or merchandising activities.

- (C) BNA information associated with listed/published telephone numbers will be provided. Requests for BNA information associated with nonpublished and unlisted telephone numbers will be provided, unless (1) the subscriber to a nonpublished or unlisted telephone number has affirmatively that requested its BNA not be disclosed, or (2) in the case of the Company's Puerto Rico subscribers to nonpublished or unlisted numbers, BNA will be provided only if affirmative authorization has been obtained from such subscribers.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services13.8 Billing Name and Address Service (Cont'd)13.8.2 Undertaking of the Company

- (A) A standard format for the receipt of BNA requests and the provision of BNA information will be established by the Company.
- (B) Standard response to BNA requests will be by First Class Mail. Standard format will be on paper.
- (C) Where facilities are available, the customer may request an optional specialized output format required to meet a specific customer need.
- (D) The Company will make every effort to provide accurate and complete BNA data. The Company makes no warranties, expressed or implied, as to the accuracy or completeness of this information.
- (E) The Company will not disclose BNA information to parties other than interstate service providers and their authorized billing agents as defined in 13.8.1(A) preceding. BNA disclosure is limited to those purposes as defined in 13.8.1(B) preceding.
- (F) The Company reserves the right to request from an interstate service provider who has placed an order for BNA service, the source data upon which the interexchange carrier has based the order. This request is made to ensure that the BNA information is to be used only for purposes as described in 13.8.1(B) preceding. The Company will not process the order until such time as the interstate service provider supplies the requested data.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services13.8 Billing Name and Address Service (Cont'd)13.8.3 Obligations of the Customer

- (A) The customer shall order BNA Service on a separate BNA Order. The order must identify both the customer's authorized representative and the address to which the information is to be sent.
- (B) The customer shall treat all BNA information as confidential. The customer shall insure that BNA information is used only for the purposes as described in 13.8.1(B) preceding.
- (C) The customer shall not publicize or represent to others that the Company jointly participates with the customer in the development of the customer's end user records it assembles through the use of BNA Service.
- (D) Upon request, the customer will provide to the Company the source data upon which the customer has based an order for BNA service. The Company will not process the order until such time as the customer provides the requested data.

13.8.4 Rate Regulations

- (A) For each order for BNA information received by the Company, a BNA Order Charge applies. In addition, a charge applies for each customer specific record provided. The BNA Order Charge and the Per Record Charge are specified in Section 17 following.
- (B) Reserved For Future Use
- (C) Where available, the customer may order an output format other than a standard paper format in order to meet a customer's specific requirement. This option is subject to an hourly programming charge as specified in Section 17 following and is in addition to the BNA Order Charge and the BNA Record Charge.

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14. Reserved For Future Use

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service

This section explains and lists the codes that the customer must specify when ordering Special Access Service. Switched Access, Entrance Facilities, and Voice Grade and High Capacity Direct Trunked Transport. These codes provide a standardized means to relate the services being ordered to Special Access Service offerings contained in Section 7 preceding.

When ordering, the type of Special Access Service or Switched Access Entrance Facility or Direct Trunked Transport is described by two code sets, the Network Channel (NC) code and the Network Channel Interface (NCI) codes.

The Network Channel (NC) code consists of two elements. Element one is a Channel Service Code (character positions 1 and 2) that describes the channel service type in an abbreviated form. Element two is an Optional Feature Code (character positions 3 and 4) that identifies option codes available for each channel service code, such as C-conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Company and the customer.

On the following 3 pages are examples which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types. The SD and NC codes are displayed as components of the matrices designated as Technical Specifications packages in (A) through (G) following. Through the use of these matrices, SD codes may be converted to NC codes for service ordering purposes.

A chart is also provided in 15.1.2(A) following which contains information necessary to develop NCI codes.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service (Cont'd)

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Special Report (x) SR-ST5-000307. However, not all services contained in this Special (x) Report may be offered by the Company at this time.

Lastly, 15.1.2(C) following provides a list of compatible Network Channel Interfaces inasmuch as the Network Channel Interfaces associated with a given service need not always be the same, but all must be compatible.

Example No. 1: If the customer wishes to order a 4-wire voice grade circuit with 600 Ohms impedance, capable of data transmission, and with improved return loss, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LG-R	04DB2	04DA2-S

NC Code:

LG = Voice Grade Channel Service, VG6

-R = Improved Return Loss

NCI Code:

04 = Number of physical wires at CDP

DB = Data stream in VF frequency band at the customer designated main terminal location

2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

04 = Number of physical wires at CDP

DA = Data stream in VG frequency at the customer designated secondary terminal location

2 = 600 Ohms impedance

S = Sealing current option for 4-wire transmission

In the above example the NCI (Network Channel Interface) code is the interface requested at the customer's POT (Point of Termination) and the SECNCI (Secondary Network Channel Interface) code represents the interface at the end office serving the End User.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)15.1 Special Access Service (Cont'd)

Example No. 2: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LC--	04LO2	02LS2

NC Code:

LC = Voice Grade Channel Service, VG2
-- = No Optional Features

NCI Code:

04 = Number of physical wires at CDP
LO = Loop start, loop signaling - open end
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

02 = Number of physical wires at CDP
LS = Loop start signaling - closed end
2 = 600 Ohms impedance

Example No. 3: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
HC--	04DS9-15	04DS9-15

NC Code:

HC = High Capacity Channel Service, HC1
-- = No Optional Features

NCI, SECNCI Code:

04 = Number of physical wires at CDP
DS = Digital hierarchy interface
9 = 100 Ohms impedance
15 = 1.544 Mbps (DS1) format

The preceding three examples use information contained in Special Report SR-ST5-000307.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1.1 Network Channel (NC) Codes

In order to determine the NC code appropriate for the service to be ordered, the type of Special Access Service the customer wishes must be identified. This identification is accomplished by a Service Designator (SD) code. The broad categories of Service Designator codes (e.g., VG) are set forth in Section 7 preceding. Variations within service type (e.g., VG1) are described in the various Technical Publications cited in (A) through (G) following.

Having determined the specific service type to be ordered and its SD code, and having used the appropriate Technical Publication, the customer should match the SD code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth in 15.1.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.1 Network Channel (NC) Codes (Cont'd)

(A) Technical Specifications Packages Voice Grade Service

SD Code NC Code	Package VG-													
	<u>C*</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>W</u>
	<u>LQ</u>	<u>LB</u>	<u>LC</u>	<u>LD</u>	<u>LE</u>	<u>LF</u>	<u>LG</u>	<u>LH</u>	<u>LJ</u>	<u>LK</u>	<u>LN</u>	<u>LP</u>	<u>LR</u>	<u>SE</u>
<u>Parameter</u>														
Attenuation														
Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Echo Control	X	X	X	X		X		X	X			X	X	X
Envelope Delay														
Distortion	X						X	X	X	X	X	X	X	X
Frequency Shift	X						X	X	X	X	X	X	X	X
Impulse Noise	X					X	X	X	X	X	X	X	X	X
Intermodulation														
Distortion	X						X	X	X	X	X	X		X
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain Hits, and Dropouts	X													
Phase Jitter	X						X	X	X	X	X			X
Signal-to-C Message Noise					X									
Signal-to-C														
Notch Noise	X					X	X	X	X	X	X	X	X	X

The technical specifications for these parameters (except for dropouts, phase hits, and gain hits) are described in Technical References TR-NPL-000334 and TR-TSY-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004, Table 4.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.1 Network Channel (NC) Codes (Cont'd)

(A) Technical Specifications Packages Voice Grade Service (Cont'd)

SD Code	<u>C*</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>W</u>
NC Code	<u>LQ</u>	<u>LB</u>	<u>LC</u>	<u>LD</u>	<u>LE</u>	<u>LF</u>	<u>LG</u>	<u>LH</u>	<u>LJ</u>	<u>LK</u>	<u>LN</u>	<u>LP</u>	<u>LR</u>	<u>SE</u>
<u>Optional Features and Functions</u>														
Central Office Bridging Capability	X		X			X	X				X	X	X	
Central Office Multiplexing	X						X							
Conditioning: C-Type Improved	X					X	X	X	X	X	X			
Attenuation Distortion Improved Envelope		X					X	X	X	X	X	X		
Delay Distortion		X					X	X	X	X	X	X		
Sealing Current	X						X							
Data Capability	X						X	X			X			
Telephoto Capability		X												X
Customer Specified Premises Receive Level	X		X	X				X	X	X				
Improved Return Loss for Effective Four-Wire Transmission	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Improved Two-Wire Transmission	X		X	X				X						
Improved Two-Wire Voice Transmission													X	
PPSN Interface Arrangement		X									X			
Selective Signaling Arrangement	X		X			X	X				X	X	X	
Signaling Capability	X	X	X	X				X	X	X				
Transfer Arrangement	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.1 Network Channel (NC) Codes (Cont'd)

(B) Technical Specifications Packages Program Audio Service

<u>Parameter</u>	SD Code NC Code	<u>Package</u>				
		<u>APC*</u> <u>PQ</u>	<u>AP1</u> <u>PE</u>	<u>AP2</u> <u>PF</u>	<u>AP3</u> <u>PJ</u>	<u>AP4</u> <u>PK</u>
Actual Measured Loss		X	X	X	X	X
Amplitude Tracking		X				
Crosstalk		X	X	X	X	X
Distortion Tracking		X				
Gain/Frequency Distortion		X	X	X	X	X
Group Delay		X				
Noise		X	X	X	X	X
Phrase Tracking		X				
Short-Term Gain Stability		X				
Short-Term Loss		X				
Total Distortion		X	X	X	X	X
<u>Optional Features and Functions</u>						
Central Office Bridging Capability		X	X	X	X	X
Gain Conditioning		X	X	X	X	X
Stereo		X				X

The technical specifications are described in Technical Reference TR-NPL-000337 and associated Addendum.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.1 Network Channel (NC) Codes (Cont'd)

(C) Technical Specifications Packages Digital Data Service

SD Code NC Code	<u>Package</u>					
	D1 XA	D2 XB	D3 XG	D4 XH	D5 XE	D6 YN
<u>Parameter/Hubbed</u>						
Error-Free Seconds	X	X	X	X	X	X
<u>Optional Features and Functions/Hubbed</u>						
Central Office Bridging Capability	X	X	X	X	X	X
PPSN Interface Transfer Arrangement	X	X	X	X	X	X
Transfer Arrangement	X	X	X	X	X	X

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Optional Features
and Functions/Non-Hubbed

Public Packet Data Arrangement	X	X
--------------------------------	---	---

Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-000341.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.1 Network Channel (NC) Codes (Cont'd)

(D) Technical Specifications Packages High Capacity Service

SD Code NC Code	Package					
	HC0	HC1	HC1C	HC2	HC3	HC4
	HS	HC	HD	HE	HF	HG
<u>Parameters</u>						
Error-Free Seconds		X				
<u>Optional Features and Functions</u>						
Automatic Loop Transfer			X			
Central Office Multiplexing:						
DS3 to DS1					X	
DS1 to Voice		X				
DS1 to DS0		X				
DS0 to Subrate*	X					
Transfer Arrangement		X				
Clear Channel Capability		X				

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

* Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications

15.1 Special Access Service

15.1.1 Network Channel (NC) Codes (Cont'd)

(E) Technical Specifications Packages Synchronous Optical Channel Service

	<u>Package</u>		
	SD Code ⁽¹⁾ NC Code ⁽²⁾	OC3 <u>OB</u>	OC12 <u>OD</u>
<u>Parameters</u>			
Error-Free Seconds		X	X
<u>Optional Features and Functions</u>			
Customer Premises			
Multiplexing:			
OC12 to OC3			X
OC12 to OC3c			X
OC12 to DS3			X
OC12 to DS1			X
OC3 to STS-1		X	
OC3 to DS3		X	
OC3 to DS1		X	
Central Office			
Multiplexing:			
OC12 to OC3			X
OC12 to OC3c			X
OC3 to DS3		X	
OC3 to DS1		X	

Technical specifications are delineated in Technical Reference GR-253-CORE, GR-1374-CORE, ANSI T1.102-1993 and ANSI T1, 105-2001

15.1.2 Network Channel Interface (NCI) Codes

The electrical interface with the Company for Special Access Services, is defined by an interface code. There are interface codes for both the customer designated premises and the point of termination.

(1) SD = Service Designation Code

(2) NC – Network Channel Code

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes (Cont'd)(A) Parameter Codes and OptionsParameter

<u>Code</u>	<u>Option</u>	<u>Definition</u>
AB	-	accepts 20 Hz ringing signal at customer's point of termination
AC	-	accepts 20 Hz ringing signal at customer's end user's point of termination
AH	-	analog high capacity interface
	- B	60 kHz to 108 kHz (12 channels)
	- C	312 kHz to 552 kHz (60 channels)
	- D	564 kHz to 3084 kHz (600 channels)
CM	-	SONET ADM Termination
CT	-	Centrex Tie Trunk Termination
CS	-	digital hierarchy interface at Digital Cross Connect System (DCS)
	- 15	1.544 Mbps (DS1) ANSI Extended Superframe (ESF) Format and B8ZS Clear Channel Capability
	- 15A	1.544 Mbps (DS1) Superframe (SF) format
	- 15B	1.544 Mbps (DS1) Superframe (SF) format and B8ZS Clear Channel Capability
	- 15K	1.544 Mbps (DS1) Extended Superframe (ESF)
DA	-	data stream in VF frequency band at customer's end user's point of termination
DB	-	data stream in VF frequency band at customer's point of termination
	- 10	VF for TG1 and TG2
	- 43	VF for 43 Telegraph Carrier type signals, TG1 and TG2
DC	-	direct current or voltage
	- 1	monitoring interface with series RC combination (McCulloh format)
	- 2	Company energized alarm channel
	- 3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)
DD	-	DATAPHONE Select-A-Station (and TABS) interface at customer's point of termination
DE	-	DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes(A) Parameter Codes and OptionsParameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DS	-	digital hierarchy interface
	- 15	1.544 Mbps (DS1) format per PUB 62411 plus D4
	- 15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	- 15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	- 15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	- 15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	- 15J	1.544 Mbps format per PUB 62411
	- 15K	1.544 Mbps format per PUB 62411 plus extended framing format
	- 15L	1.544 Mbps (DS1) with SF signaling
	- 27	274.176 Mbps (DS4)
	- 27L	274.176 Mbps (DS4) with SF signaling
	- 31	3.152 Mbps (DS1C)
	- 31L	3.152 Mbps (DS1C) with SF signaling
	- 44	44.736 Mbps (DS3)
	- 44L	44.736 Mbps (DS3) with SF signaling
	- 63	6.312 Mbps (DS2)
	- 63L	6.312 Mbps (DS2) with SF signaling
DU	-	digital access interface
	- 24	2.4 kbps
	- 48	4.8 kbps
	- 19	19.2 kbps
	- 56	56.0 kbps
	- 96	9.6 kbps
	- 64	64.0 kbps
	- A	1.544 Mbps format per GR-342-CORE
	- B	1.544 Mbps format per GR-342-CORE plus D4
	- C	1.544 Mbps format per GR-342-CORE plus extended framing format
	- 1KN	1.544 Mbps ANSI Extended Superframe (ESF) Format without line power
	- 1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line power
	- AN	1.544 Mbps free-framing format without line power (only avail. to U.S. Govt. agencies)
	- BN	1.544 Mbps Superframe (SF) Format without line power
	- DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power
DX	-	duplex signaling interface at customer's point of termination
DY	-	duplex signaling interface at customer's end user's point of termination

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes(A) Parameter Codes and OptionsParameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
EA	- E	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EA	- M	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB	- E	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EB	- M	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EC	-	Type III E&M signaling at customer POT
EX	- A	tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions.
EX	- B	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
FC	-	Fiber Optic Interface
	- B	OC3, OC3c
	- D	OC12
GO	-	ground start loop signaling - open end function by customer or customer's end user
GS	-	ground start loop signaling - closed end function by customer or customer's end user
KD	- A	Ethernet at 10 Mbps, full duplex LAN
	- B	Ethernet at 10 Mbps, half duplex LAN
KE	- A	Ethernet at 100 Mbps, full duplex LAN
	- B	Ethernet at 100 Mbps, half duplex LAN
KF	- L	Ethernet at 1000 Mbps, LAN
KR	- A1	Ethernet Rate-Adjustable 1 Gbps, 100 Mbps, full duplex
	- A3	Ethernet Rate-Adjustable 1 Gbps, 300 Mbps, full duplex
	- A6	Ethernet Rate-Adjustable 1 Gbps, 600 Mbps, full duplex
	- AB	Ethernet Rate-Adjustable 1 Gbps, 150 Mbps, full duplex
	- AK	Ethernet Rate-Adjustable 1 Gbps, 450 Mbps, full duplex
KQ	- A2	Ethernet Rate-Adjustable 1 Gbps, 20 Mbps, full duplex
	- B2	Ethernet Rate-Adjustable 1 Gbps, 20 Mbps, half duplex
	- A5	Ethernet Rate-Adjustable 1 Gbps, 50 Mbps, full duplex
	- B5	Ethernet Rate-Adjustable 1 Gbps, 50 Mbps, half duplex

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes(A) Parameter Codes and OptionsParameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
IA	-	E.I.A. (25 pin RS-232)
LA	-	end user loop start loop signaling - Type A OPS registered port open end
LB	-	end user loop start loop signaling - Type B OPS registered port open end
LC	-	end user loop start loop signaling - Type C OPS registered port open end
LO	-	loop start loop signaling - open end function by customer or customer's end user
LR	-	20 Hz automatic ringdown interface at customer with Company provided PLAR
LS	-	loop start loop signaling - closed end function by customer or customer's end user
NO	-	no signaling interface, transmission only
PG	-	program transmission - no dc signaling
	- 1	nominal frequency from 50 to 15000 Hz
	- 3	nominal frequency from 200 to 3500 Hz
	- 5	nominal frequency from 100 to 5000 Hz
	- 8	nominal frequency from 50 to 8000 Hz
PR	-	protective relaying*
QB	-	central office manual cross connect termination with no subrating capability
RV	- 0	reverse battery signaling, one way operation, originate by customer
	- T	reverse battery signaling, one way operation, terminate function by customer or customer's end user

* Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes(A) Parameter Codes and OptionsParameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
SF	-	single frequency signaling with VF band at either customer POT or customer's end user POT
ST	-	Synchronous Transmission Signal (STS)
	- A	STS1

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications15.1 Special Access Service15.1.2 Network Channel Interface (NCI) Codes (Cont'd)(B) Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

<u>Value (ohms)</u>	<u>Code(s)</u>
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9
Fiber	F
Radio	R

(C) Compatible Network Channel Interfaces

The following table shows the Network Channel Interface codes (NCIs) which are compatible with:

- + For those interface codes with a 4-wire transmission path at the customer designated POT, rather than standard 900 ohm impedance, the code (3) denotes a customer-provided transmission equipment termination. Such terminations were provided to customers in accordance with the F.C.C. Docket No. 20099 Settlement Agreement.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(1) Voice Grade

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2	2DX3	2LA2	2LS	2GS
	4DS8		2LB2		2LS
	4DX2		2LC2		4GS
	4DX3		2LO3		4LS
	4DY2		2LS2		
	4EA2-E		2LS3	2LS2	2LA2
	4EA2-M				2LB2
	4SF2	2GO2	2GS2		2LC2
	4SF3		2GS3		
	6DX2			2LS3	2LA2
	6DY2	2GO3	2GS2		2LB2
	6DY3		2GS3		2LC2
	6EA2-E				
	6EA2-M	2GS	2GS	2NO2	2DA2
	6EB2-E		2LS		2NO2
	6EB2-M		4GS		
	6EB3-E		4LS	2NO3	2NO2
	8EB2-E				2PR2
	8EB2-M	2L02	2LS2		
	8EC2		2LS3	2TF3	2TF2
	9DY2				
	9DY3	2L03	2LS2		
	9EA2	2LS3			
	9EA3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4AB2	2AC2 4AB2 4AC2 4SF2				
4AB3	2AC2 4AC2 4SF2				
4AC2	2AC2 4AC2				
		4DS8-	2AC2 2DA2 2DY2 2GO2 2GO3 2GS2 2GS3 2LA2 2LB2 2LC2 2LO2 2LO3 2LR2 2LS2 2LS3	4DS8-	4DG2 4LR2 4LS2 4NO2 4PR2 4RV2-T 4SF2 4SF3 4TF2 6DA2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 6GS2 6LS2 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3
4DA2	4DA2				
4DB2	2DA2 2NO2 2PR2 4DA2 4DB2 4NO2 4PR2 6DA2				
4DD3	2DE2 4DE2		2NO2 2PR2 2RV2-T 2TF2 4AC2 4DA2 4DE2 4DX2 4DX3 4DY2 4EA2-E 4EA2-M		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DX2	2DY2	4DX2	8EB2-E	4DX3	6DY2
	2LA2		8EB2-M		6DY3
	2LB2		9DY2		6EA2-E
	2LC2		9DY3		6EA2-M
	2LO3		9EA2		6EB2-E
	2LS2		9EA3		6EB2-M
	2LS3				6LS2
	2RV2-T	4DX3	2DY2		8EB2-E
	4DX2		2LA2		8EB2-M
	4DY2		2LB2		9DY2
	4EA2-E		2LC2		9DY3
	4EA2-M		2LO3		9EA2
	4LS2		2LS2		9EA3
	4RV2-T		2LS3		
	4SF2		2RV2-T	4DY2	2DY2
	4SF3		4DX2		4DY2
	6DY2		4DX3		
	6DY3		4DY2		
	6EA2-E		4EA2-E		
	6EA2-M		4EA2-M		
	6EB2-E		4LS2		
	6EB2-M		4RV2-T		
	6LS2		4SF2		
			4SF3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4EA2-E	2DY2	4EA3-E	2DY2	4GO2	2GO2
	4DY2		4DY2		2GO3
	4EA2-E		4EA2-E		2GS2
	4EA2-M		4EA2-M		2GS3
	4SF2		4SF2		4GS2
	6DY2		6DY2		4SF2
	6DY3		6DY3		6GS2
	6EB2-E		6EA2-E		
	6EB2-M		6EA2-M	4GO3	2GO2
	8EB2-E		6EB2-E		2GS2
	8EB2-M		6EB2-M		2GS3
	9DY2		8EB2-E		4GS2
	9DY3		8EB2-M		4SF2
			9DY2		6GS2
4EA2-M	2DY2		9DY3		
	4DY2		9EA2		
	4EA2-M		9EA3	4GS	2GS
	4SF2				2LS
	6DY2				4GS
	6DY3				4LS
	6EB2-E				
	6EB2-M				
	8EB2-E				
	8EB2-M				
	9DY2				
	9DY3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4LO2	2LS2 2LS3 4LS2 4SF2 6LS2	4LS3	2LA2 2LB2 2LC2 2LO2 2LO3 4SF2	4SF2	2LO3 2LR2 2LS2 2LS3 2RV2-T 4AC2 4DY2
4LO3	2LS2 2LS3 4LS2 4SF2 6LS2	4NO2	2DA2 2DE2 2NO2 4DA2 4DE2 4NO2 6DA2		4LS2 4RV2-T 4SF2 6DY2 6DY3 6GS2 9DY2 9DY3
4LR2	2LR2 4LR2 4SF2				
4LR3	2LR2 4LR2 4SF2	4RV2-0	2RV2-T 4RV2-T 4SF2	4SF3	2DY2 2GO3 2GS2 2GS3
4LS	2GS 2LS 4GS 4LS	4SF2	2AC2 2DY2 2GS2 2GS3 2LA2 2LB2 2LC2		2LA2 2LB2 2LC2 2LO3 2LR2
4LS2	2LA2 2LB2 2LC2 2LO2 2LO3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4SF3	2LS2	6DA	4DA2	6DY3	2DY2
	2LS3		6DA2		4DY2
	2RV2-T				6DY2
	4DY2	6DX2	2DY2		6DY3
	4EA2-E		4DY2		
	4EA2-M		4EA2-E	6EA2-E	2AC2
	4GS2		4EA2-M		2DY2
	4LR2		4SF2		2LA2
	4LS2		6DY2		2LB2
	4RV2-T		6DY3		2LC2
	4SF2		6EA2-E		2LO3
	4SF3		6EA2-M		2LS2
	6DY2		6EB2-E		2LS3
	6DY3		6EB2-M		2RV2-T
	6EB2-E		8EB2-E		4AC2
	6EB2-M		8EB2-M		4DY2
	6GS2		9DY2		EA2-E
	6LS2		9DY3		4EA2-M
	9DY2		9EA2		4LS2
	9DY3		9EA3		4RV2-T
	9EA2				4SF2
	9EA3	6DY2	2DY2		4SF3
			4DY2		6DY2
			6DY2		6DY3
4TF2	2TF2				6EA2-E
	4TF2				6EA2-M

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EA2-E	6EB2-E	6EA2-M	6DY2	6EB3-E	2DY2
	6EB2-M		6DY3		4DY2
	6LS2		6EA2-M		4EA2-E
	8EB2-E		6EB2-E		4EA2-M
	8EB2-M		6EB2-M		4SF2
	9DY2		6LS2		6DY2
	9DY3		8EB2-E		6DY3
			8EB2-M		6EA2-E
6EA2-M	2AC2		9DY2		6EA2-M
	2DY2		9DY3		8EB2-E
	2LA2				8EB2-M
	2LB2	6EB2-E	2DY2		9DY2
	2LC2		4DY2		9DY3
	2LO3		4SF2		9EA2
	2LS2		6DY2		9EA3
	2LS3		6DY3		
	2RV2-T		6EB2-E	6EX2-A	2GS2
	4AC2		6EB2-M		2GS3
	4DY2		9DY2		2LS2
	4EA2-E		9DY3		2LS3
	4EA2-M				4GS2
	4LS2	6EB2-M	2DY2		4LS2
	4RV2-T		4DY2		4SF2
	4SF2		4SF2		6GS2
	4SF3		6DY2		6LS2
			6DY3		
			6EB2-M		
			9DY2		
			9DY3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EX2-B	2GO3	8EB2-E	2AC2	8EB2-M	2AC2
	2LA2		2DY2		2DY2
	2LB2		2LA2		2LA2
	2LC2		2LB2		2LB2
	2LO2		2LC2		2LC2
	2LO3		2LO3		2LO3
	2LR2		2LS2		2LS2
	4LR2		2LS3		2LS3
	4SF2		2RV2-T		2RV2-T
			4AC2		4AC2
			4DY2		4DY2
			4LS2		4LS2
			4RV2-T		4RV2-T
6GO2	2GO2	4SF2	4SF2	4SF2	4SF2
	2GS2	4SF3	4SF3	4SF3	4SF3
	2GS3	6DY2	6DY2	6DY2	6DY2
	4GS2	6DY3	6DY3	6DY3	6DY3
	4SF2	6EB2-E	6EB2-E	6EB2-E	6EB2-E
	6GS2	6EB2-M	6EB2-M	6EB2-M	6EB2-M
6LO2	2LS2	6LS2	6LS2	6LS2	6LS2
	2LS3	8EB2-E	8EB2-E	8EB2-E	8EB2-E
	4LS2	8EB2-M	8EB2-M	8EB2-M	8EB2-M
	4SF2	9DY2	9DY2	9DY2	9DY2
	6LS2	9DY3	9DY3	9DY3	9DY3
6LS2	2LA2				
	2LB2				
	2LC2				
	2LO2				
	2LO3				
	4SF2				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
8EC2	2DY2	9DY2	2DY2	9EA3	2DY2
	4DY2		4DY2		4DY2
	4EA2-E		6DY2		4EA2-E
	4EA2-M		6DY3		4EA2-M
	4SF2		9DY2		6DY2
	6DY2				6DY3
	6DY3	9DY3	2DY2		6EA2-E
	6EA2-E		4DY2		6EA2-M
	6EA2-M		6DY2		6EB2-E
	6EB2-E		6DY3		6EB2-M
	6EB2-M		9DY2		8EB2-E
	8EB2-E		9DY3		8EB2-M
	8EB2-M				9DY2
	9DY2	9EA2	2DY2		9DY3
	9DY3		4DY2		9EA3
	9EA2		4EA2-E		
	9EA3		4EA2-M		
			6DY2		
			6DY3		
			6EA2-E		
			6EA2-M		
			6EB2-E		
			6EB2-M		
			8EB2-E		
			8EB2-M		
			9DY2		
			9DY3		
			9EA2		
			9EA3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(4) Program Audio

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2PG2-1	2PG1-1 2PG2-1	4DS8-15E	2PG1-3 2PG2-3
2PG2-3	2PG1-3 2PG2-3	4DS8-15F	2PG1-5 2PG2-5
2PG2-5	2PG1-5 2PG2-5	4DS8-15G	2PG1-8 2PG2-8
2PG2-8	2PG1-8 2PG2-8	4DA8-15H	2PG1-1 2PG2-1

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(6) Digital Data

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS8-15	4DS8-15+	4DU5-24	4DU5-24	6DU5-24	6DU5-24
	4DU5-24				
	4DU5-48	4DU5-48	4DU5-48	6DU5-48	6DU5-48
	4DU5-56				
	4DU5-96	4DU5-96	4DU5-96	6DU5-56	6DU5-56
	6DU5-24				
	6DU5-48	4DU8-56	4DU5-56	6DU5-96	6DU5-96
	6DU5-96				

+ Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company hub.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Special Access Service (Cont'd)

15.1.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(7) High Capacity

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS0-63	4DS0-63 4DU8-A,B or C 6DU8-A,B or C	4DS8-15J	4DU8-A 6DU8-A
4DS6-27	4DS6-27 4DU8-A,B or C 6DU8-A,B or C	4DS8-15K	4DU8-B 4DU8-C 6DU8-B 6DU8-C
4DS6-44	4DS6-44 4DU8-A,B or C 6DU8-A,B or C	4DS8-31	4DS8-31 4DU8-A,B or C 6DU8-A,B or C
4DS8-15	4DS8-15+ 4DU8-B	4DU8-A,B or C	4DU8-A,B or C

(8) Synchronous Optical Channel Service

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS9-1S	4DU9-1S	02SOF-A	02SOF-A
4DS9-1K	4DU9-1K	02SOF-B	02SOF-B
		02SOF-C	02SOF-C
		02SOF-D	02SOF-D
		02SOF-E	02SOF-E
		02SOF-F	02SOF-F

ACCESS SERVICE

16. Public Packet Data Network

Public Packet Data Networks utilize separate data networks, comprised of switching and transmission facilities. The networks provide for the transfer of data provided by a customer in a frame or cell format. The data is separated into discrete segments for transmission through the public packet data network.

16.1 Frame Relay Access Service

Effective June 1, 2015, Frame Relay Access Service will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their Frame Relay Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their Frame Relay Service covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

16.1.1 General

Frame Relay Access Service (FRAS) is a medium-speed, connection-oriented packet-switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible end user customer premises equipment for the purpose of connecting to an interstate frame relay network. FRAS also allows for the interconnection of a customer designated premises to a DSL Access Service Connection Point. The terminal equipment accumulates the customer data and puts it into a frame relay format suitable for transmission over the FRAS network. This terminal equipment must conform to American National Standards Institute and Telecommunication Standardization Bureau of the International Telecommunication Union (ITU-T), Committee Consultat de International Telegraphique et Telephonique (CCITT) standards.

FRAS permits customers to share network bandwidth for data transmissions.

Rates and charges for FRAS are set forth in Section 17 following. The application of rates for FRAS is described in 16.1.2 following.

In addition to the regulations and charges specified in this section, the general regulations and charges specified in other sections of this service guide apply as appropriate.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.1 General (Cont'd)(A) Service Description

FRAS is a transport service that facilitates the exchange of variable length information units (frames) between customer connections. Frames travel a fixed path through the network with an address that specifies the permanent virtual connection. Addresses are read by the network processor and the frames are relayed to the pre-assigned destination.

FRAS service includes: the Frame Relay Access Connection, the Frame Relay Inter-network Connection, and Permanent Virtual Connections (PVC) which have associated Committed Information Rates (CIRs).

The Frame Relay Access Connection and the Frame Relay Inter-network Connection elements provide access to a Company wire center equipped with a frame relay switch. A generic view of FRAS access is shown in 16.1.2(A) following. Frame Relay Access Service connections are available from the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

The Frame Relay Access Connection combines a frame relay compatible 1.544 Mbps or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Access Connection includes the Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port. The end user port is a user-to-network interface which provides the lineside physical entry point into the Company frame relay network and permits FRAS compatible end user customer premises equipment (CPE) to originate or terminate an interstate access service. Connections between end user customer premises equipment and the Company frame relay switch are available at speeds of 1.544 Mbps or 44.736 Mbps. Each end user port requires the identification of a corresponding terminating port. All end user ports must be in conformance with American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.1 General(A) Service Description (Cont'd)

The Frame Relay Inter-network Connection combines a frame relay compatible 1.544 Mbps or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Inter-network Connection includes the Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port. The inter-network customer port is a network-to-network interface which provides the trunk side physical entry point into the Company frame relay network. The inter-network customer port connects the Company frame relay switch and the access customer's network. The inter-network customer port is offered at speeds of 1.544 Mbps or 44.736 Mbps. All inter-network customer ports must be in conformance with Telcordia Technologies, Inc. Technical Reference TR-TSV-001370, Issued: May 1993.

The Company will provide the logical circuits required within its frame relay network to connect the ports or to connect a port with a DSL Access Service Connection Point. These logical circuits, or Permanent Virtual Connections (PVC), are software defined, end-to end, bi-directional communications paths that are established and disestablished via the access service order process. While no physical circuits are dedicated, the two network addresses (one from each port) are connected electronically to form a PVC.

There are two types of PVCs available. The standard PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Company frame relay networks. A generic view of interconnected FRAS is shown in 16.1.2(A) following.

At the time service is ordered the number of PVCs will be identified along with their Committed Information Rates. CIR is the bit rate at which the FRAS network commits to transfer data. Committed Information Rates provide for frame relay switch throughput at designated speeds (See 17.6.7.1(F) following). This information is required for network routing purposes.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.1 General (Cont'd)(B) Service Provided by More than One Company

When the transport facility between the customer designated premises and a wire center equipped with a frame relay switch is provided by more than one Company, the Companies involved will provide a Special Access Service facility as set forth in Section 7 preceding, and in accordance with Sections 2.4.7 and 5.3 preceding.

Jointly-Provided FRAS service includes: the End User Port, the Inter-network Customer Port, and Permanent Virtual Connections (PVC) which have associated Committed Information Rates (CIRs). A Special Access Service facility is used to connect to the frame relay switch.

Connections are provided via Channel Termination(s) and Channel Mileage (See Section 7, preceding). All regulations, rates and charges as specified in Section 7 will apply in addition to the rates and charges associated with FRAS. A generic view of jointly-provided FRAS is shown in 16.1.2(A) following.

The Company that provides the frame relay switch will bill an End User Port charge for the end user port connection and/or an Inter-network Customer Port charge for the inter-network customer port connection.

The Special Access Service, End User Port and/or Inter-network Customer Port charge(s) will apply in lieu of the Frame Relay Access Connection or Frame Relay Inter-network Connection.

(D) Ordering Options and Conditions

Frame Relay Access Service is ordered under the Access Order provisions set forth in Section 5 preceding. Also included in that section are other charges which may be associated with ordering FRAS (e.g., Service Date Change Charges, Cancellation Charges, etc.)

A minimum of two FRAS connections are required for data to be transported between customer-designated premises.

(E) Acceptance Testing

At no additional charge, the Company will, at the customer's request, cooperatively test at the time of installation.

ACCESS SERVICE

16. Public Packet Data Network

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations

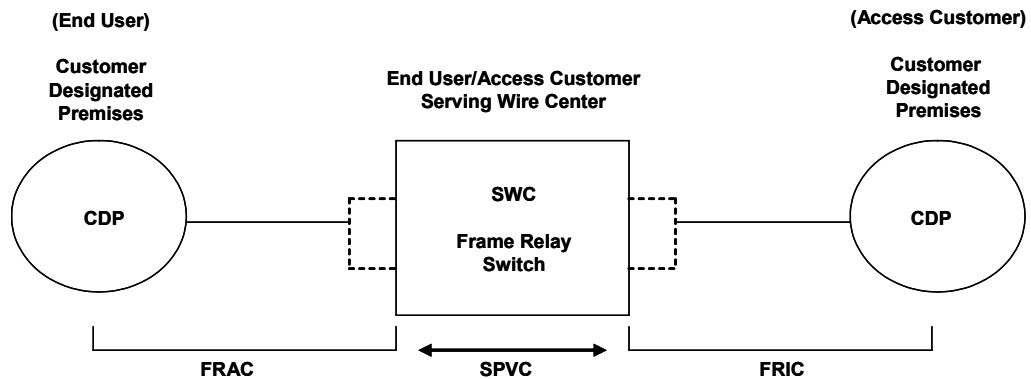
This section contains the specific regulations governing the rates and charges that apply for Frame Relay Access Service.

Frame Relay Access Service is available at the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. In the case of Interconnected Frame Relay Access Service, National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 also identifies the intermediate and super intermediate wire centers.

(A) Rate Categories

The following diagrams depict a generic view of the components of Frame Relay Access Service and the manner in which the components are combined to provide FRAS and Interconnected FRAS and Jointly-Provided FRAS.

Customer's Serving Wire Center is equipped with a Frame Relay Switch



RATE ELEMENTS:

- FRAC = Frame Relay Connection
- SPVC = Standard Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

ACCESS SERVICE

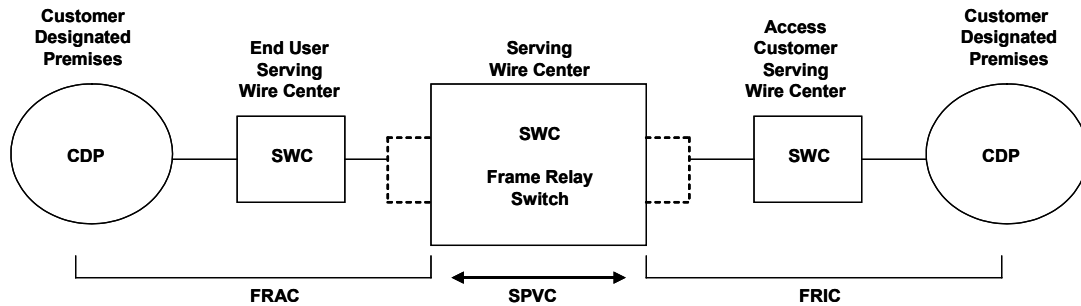
16. Public Packet Data Network

16.1 Frame Relay Access Service

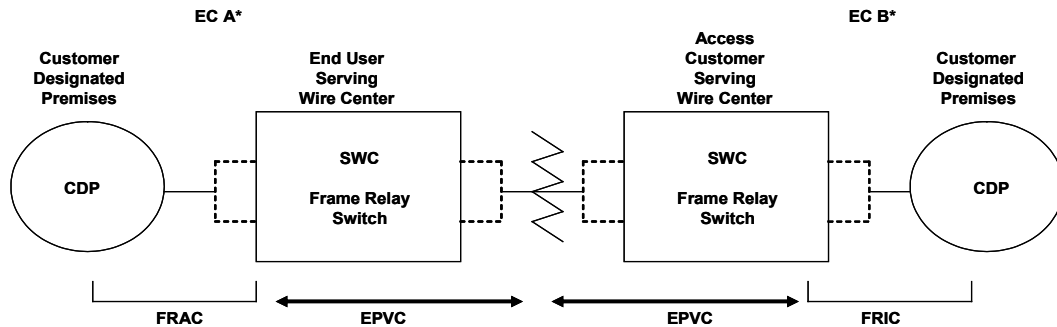
16.1.2 Rate Regulations

(A) Rate Categories (Cont'd)

Frame Relay Access Service
 Customer's Serving Wire Center is not equipped with a frame relay switch.



Interconnected Frame Relay Access Service



RATE ELEMENTS

- FRAC = Frame Relay Access Connection
- EPVC = Extended Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

* If EC A or EC B is a non-TUECA company, the application of their charges will depend upon EC A or EC B's access tariff.

ACCESS SERVICE

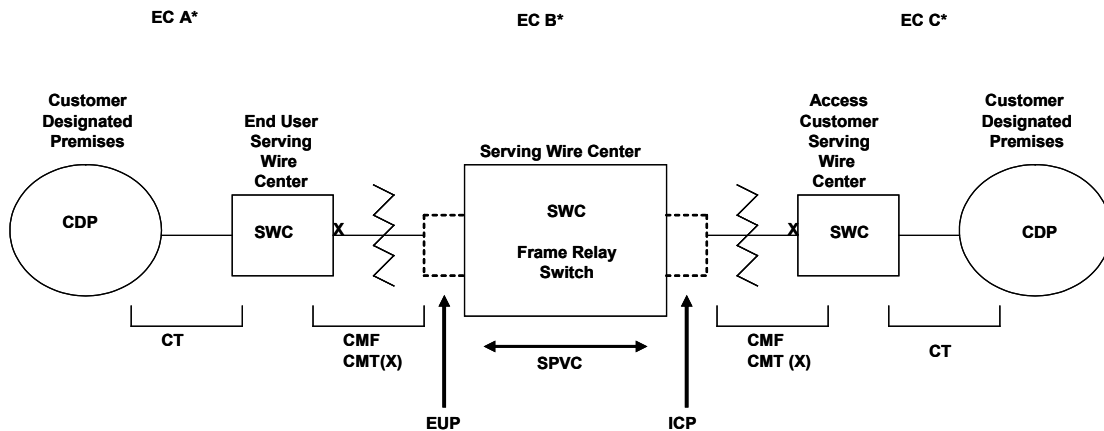
16. Public Packet Data Network

16.1 Frame Relay Access Service

16.1.2 Rate Regulations

(A) Rate Categories (Cont'd)

Jointly-Provided Frame Relay Access Service



Rate Elements

(Special Access Service)

(Frame Relay Access Service)

EC "A" CT = Channel Termination
 CMT = Channel Mileage Termination
 CMF = Channel Mileage Facility

EC "B" CMF = Channel Mileage Facility
 CMF = Channel Mileage Facility

EC "C" CT = Channel Termination
 CMT = Channel Mileage Termination
 CMF = Channel Mileage Facility

EUP = End User Port
 SPVC = Standard Permanent Virtual Connection
 ICP = Inter-network Customer Port

* If EC A or EC B is a non-TUECA company, the application of their charges will depend upon EC A and EC B's access tariff.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations(A) Rate Categories (Cont'd)(1) Frame Relay Access Connection

The Frame Relay Access Connection (FRAC) rate element recovers the costs associated with the communication path between the end user's premises and the Company wire center equipped with a frame relay switch. The FRAC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port on the Company's frame relay switch.

One FRAC charge applies per customer designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Company building.

(2) Frame Relay Inter-network Connection

The Frame Relay Inter-network Connection (FRIC) rate element recovers the costs associated with the communication path between the access customer's premises and the Company wire center equipped with a frame relay switch. The FRIC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port on the Company's frame relay switch.

One FRIC charge applies per customer designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Company building.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations(A) Rate Categories (Cont'd)(3) End User Port

An End User Port charge is applied as a discrete rate element in conjunction with jointly-provided Special Access Service. Refer to Section 7 preceding for additional applicable rates and charges.

The End User Port is the physical location in the Company switching office where the transport facility of the customer connects to the FRAS Network. It specifies how a frame relay switch sends and receives data from a frame relay end user customer's LAN or other compatible CPE devices.

The End User Port consists of either a 1.544 Mbps or 44.736 Mbps interface. The port connecting the transport facility to the Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

(4) Inter-network Customer Port

An Inter-network Customer Port Charge is applied as a discrete rate element in conjunction with jointly-provided Special Access Service. Refer to Section 7 preceding for additional applicable rates and charges.

The Inter-network Customer Port is the physical location in the Company switching office where the access customer's transport facility connects to the Company's FRAS network. It specifies how a frame relay switch sends and receives data from a frame relay access customer's network.

The Inter-network Customer Port is offered at speeds of 1.544 Mbps or 44.736 Mbps. The port connecting the transport facility to the Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations(A) Rate Categories (Cont'd)(5) Permanent Virtual Connection (PVC)

A PVC is a software defined communications path between two port connections or between a port connection and a DSL Access Service Connection Point.

Each PVC is provisioned with a customer selected Committed Information Rate. The CIR is a transmission speed specified by the customer. CIRs range from 1.544 Mbps to 44.736 Mbps. The Company will provide switch capacity to permit the customer to transmit information with guaranteed delivery at the specified CIR. The Company will permit customers to attempt to transmit at speeds up to two times the CIR with no guarantee of completion. Attempted transmissions at above two times the CIR will not be permitted.

Customers will be permitted to order multiple PVCs on a given port subject to switch limitations. Customers anticipating non-simultaneous transmission may order CIRs assigned to these multiple PVCs, the sum of which may theoretically exceed the actual throughput of the port. However, when simultaneous transmission of multiple PVCs occurs, the total of the transmission rate (CIRs) may not exceed the actual throughput of the port.

There are two types of PVCs available. The standard PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Company frame relay networks.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations (Cont'd)(B) Types of Rates and Charges

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described as follows:

(1) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a FRAS is provided. For billing purposes, each month is considered to have 30 days.

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for FRAS are: installation of service and service rearrangements. These charges are in addition to the Access Order Charge as specified in 17.1.5 following:

(a) Installation of Service

Nonrecurring charges apply for the installation of Frame Relay Access Connections (FRAC), Frame Relay Inter-network Connections (FRIC), and Permanent Virtual Connections (PVC).

A nonrecurring charge applies per FRAC or FRIC installed and is based on the speed of the connection.

A nonrecurring charge applies per PVC installed.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations(B) Types of Rates and Charges(2) Nonrecurring Charges (Cont'd)(b) Service Rearrangements

Service Rearrangements are changes to existing (installed) services.

A PVC Rearrangement Charge will be applied whenever a change is made to the CIR of existing PVC after initial port installation and/or a change is made to the terminating port destination of the PVC.

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

(c) Moves

A move involves a change in the physical location of one of the following:

- The Point of Termination at the customer's premises
- The customer's premises

The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.2 Rate Regulations(B) Types of Rates and Charges(2) Nonrecurring Charges(c) Moves (Cont'd)(i) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in 17.1 following.

(ii) Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

(C) Minimum Period

The minimum period for FRAS is one month and the full monthly rate will apply to the first month. Adjustments for quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in 2.4.1(F) preceding.

The minimum period for discounted FRAS is twelve months as set forth in 2.4.2 and 5.5.1 preceding.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service (Cont'd)16.1.3 Optional Rate Plans

A Term Discount plan is available for Frame Relay Access Service (FRAS). The Term Discount applies to the Frame Relay Access Connection and Frame Relay Inter-network Connection charges. The Permanent Virtual Connections (PVC) are not eligible for a Term Discount. Under the Term Discount plan, the current monthly rates for eligible services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer. The Term Discount percentages for FRAS are as set forth in 17.6.7.1(E) following.

Discounts for the Term Discount plan are only applied to FRAS provided to a customer within the same state and LATA by the same Company.

The minimum service period on a month-to-month basis is one month. Under an Optional Rate Plan, the minimum service period is twelve months.

(A) Term Discounts

FRAS may be ordered at the customer's option on a month-to-month basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discount plans is twelve months. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentages as set forth in 17.6.7.1(E) following will be frozen from Company initiated decreases for the entire discount period at the percent in effect at the beginning of the Term Discount period.

If a Term Discount Percentage increase occurs during the term of an existing Term Discount plan, the increased percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-to-month service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates.

To be included in a Term Discount plan, all eligible FRAS rate elements must be ordered for the same commitment term (i.e., all 36 months or all 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.3. Optional Rate Plans(A) Term Discounts (Cont'd)

Eligible FRAS rate elements are those provided to a customer within the same state and LATA by the same Company. As long as the number of FRAS connections included in a Term Discount plan remains constant, customer requests to install and disconnect FRAS connections, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in (3) following will not apply.

(1) Upgrades in Term Discounts

Services provided under month-to-month rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring FRAS nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 month or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all FRAS that is upgraded.

(2) Upgrades in Capacity

If the customer chooses to upgrade a service under the Term Discount plan to a higher capacity (e.g., from 128 kbps to 1.544 Mbps), discontinuance charges will not apply, provided all the following conditions are met:

- the customer's order for the disconnect of the existing service and the installation of the new service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing service must reference the service installation order,
- the new service has a total capacity greater than the total capacity of the service being discontinued and,
- the new Term Discount period meets or exceeds the Term Discount period being discontinued.

A new minimum service period applies to all upgrades. A Frame Relay Access Connection nonrecurring charge for an equivalent capacity of the existing services being upgraded to the higher speed service will not be assessed. FRAC nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service if requested at the same time as the upgrade request. Nonrecurring charges will apply for capacity that exceeds the existing equivalent capacity.

ACCESS SERVICE

16. Public Packet Data Network16.1 Frame Relay Access Service16.1.3 Optional Rate Plans(A) Term Discounts(2) Upgrades in Capacity (Cont'd)

Discontinuance charges will not apply should the customer choose to upgrade either a portion of or the entire FRAS under the Term Discount plan and move the service to a new customer location(s) within the same state and LATA where service is provided by the same Company.

(3) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period but before the completion of the discount period, discontinuance charges will apply. Discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has a 1.544 Mbps Frame Relay Access Connection which it chooses to discontinue after 33 months into a 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)16.2 Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS)

Effective June 1, 2015, ATM-CRS will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their ATM-CRS Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their ATM-CRS covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

16.2.1 General

Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) is a connection-oriented transport service that is based on Asynchronous Transfer Mode (ATM) technology using fixed length, 53-byte cells. ATM cells generated by ATM-compatible customer premises equipment (CPE) are transmitted through the Company's ATM-CRS network to a pre-specified destination.

ATM-CRS provides customers requiring high-speed data transport for bandwidth intensive data, voice or video applications with the ability to interconnect multiple locations using the Company's ATM-CRS network. The customer may use ATM-CRS to interconnect its customer designated premises (CDPs) served by the Company's ATM-CRS network, to interconnect its local area network (LAN) to the Company's ATM-CRS network and/or interconnect its CDPs to an ATM network located outside of the Company's serving territory.

ATM-CRS is provided using a combination of Ports, Virtual Paths and Virtual Circuit Channels. An ATM-CRS Port is required to provide the interface into the Company's ATM-CRS network. A Virtual Path is required to establish a transmission path between any two ATM-CRS Ports. Virtual Circuit Channels (VCCs) may be ordered from the Company to establish a communication path between any two CDPs or established by the customer using its own equipment.

Service is provided, where available, between CDPs and designated Company Serving Wire Centers (SWCs). ATM-CRS will be furnished where suitable facilities exist as determined by the Company. The Company will identify its ATM-CRS equipped Serving Wire Centers in the National Exchange Carriers Association, Inc. Tariff F.C.C. No. 4.

Rates and Charges for ATM-CRS are specified in Section 17.6.7.2, following. The application of rates and charges for ATM-CRS is described later in this section.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service (Cont'd)16.2.3 Obligation of the Customer

In addition to the regulations described in other sections of this service guide, the following provisions apply to ATM-CRS:

- (A) The customer is responsible for providing the Company with the necessary information to provision ATM-CRS as specified in Section 5.2 Ordering Requirements, preceding.
- (B) The customer is responsible for providing and maintaining all required customer premises equipment (CPE), which is compatible with ATM-CRS and complies with the standards specified in the following publications: The ATM Forum Technical Committee ATM User-Network Interface (UNI) Signaling Specification (Version 4.0), Private Network-Network Interface Specification (Version 1.0) and BISDN Inter Carrier Interface (B-ICI) Specification (Version 2.0). A customer ordering Ethernet-based ATM-CRS Ports is also responsible for ensuring that its CPE complies with the standards specified in Technical Reference IEEE Std. 802.3, Part 3, Clause 15 for 10Base-F, Clause 26 for 100Base-F and Clause 34 through 38 for 1000Base-X connections.

ACCESS SERVICE

16. Public Packet Data Network

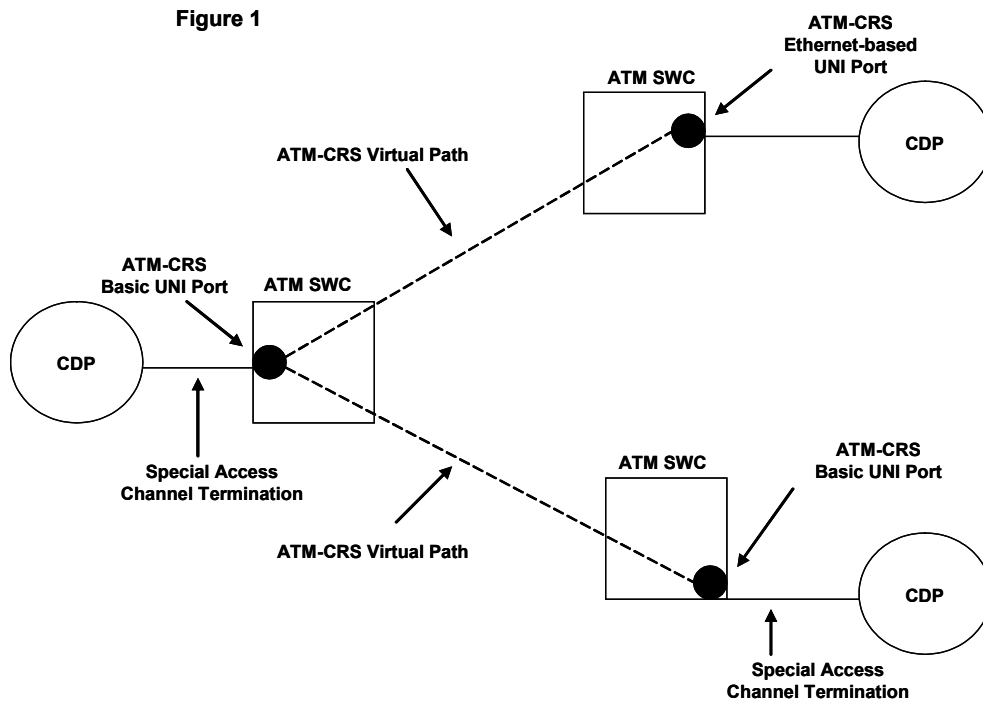
16.2 Asynchronous Transfer Mode Cell Relay Access Service (Cont'd)

16.2.4 Rate Regulations

This section contains the regulations governing the rates and charges that apply for ATM-CRS. Regulations governing the rates and charges for Special Access Services provided under this service guide used in conjunction with ATM-CRS are as specified in Section 7, preceding.

The following diagrams depict generic views of the components of ATM-CRS. In the first figure, all of the customer's CDPs are served by the ATM-CRS equipped SWCs.

The ATM-CRS customer orders the applicable ATM-CRS components pursuant to the provisions specified in this section and the applicable Special Access Service Components pursuant to the provisions specified in Section 7, preceding.



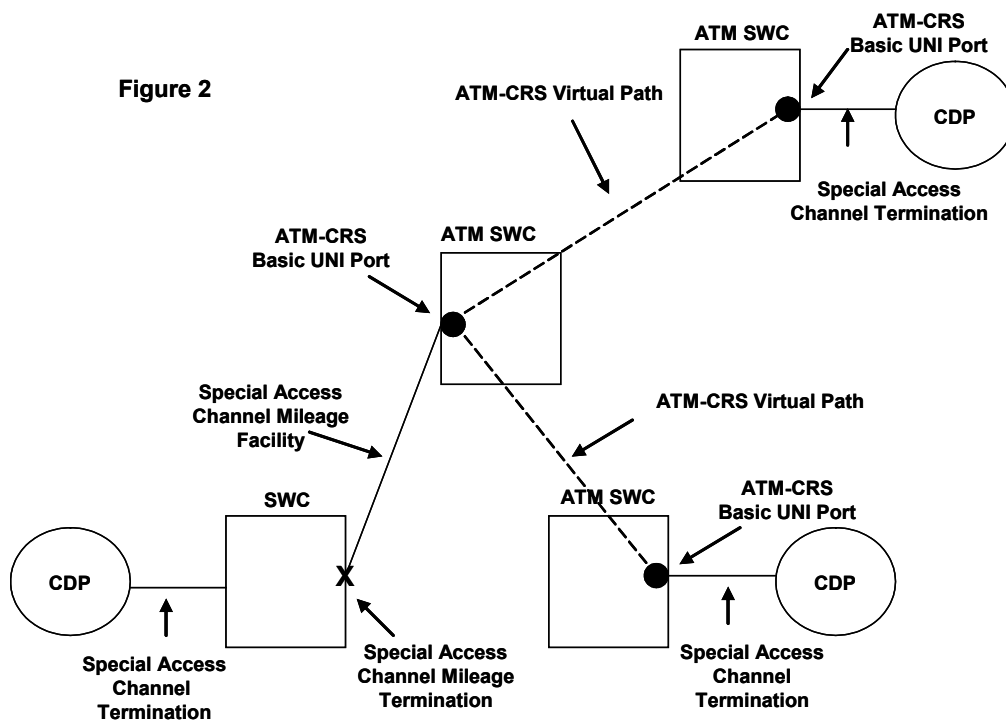
ACCESS SERVICE

16. Public Packet Data Network

16.2 Asynchronous Transfer Mode Cell Relay Access Service

16.2.4 Rate Regulations (Cont'd)

In the second figure, one of the customer's CDPs is not served by an ATM-CRS equipped SWC. The ATM-CRS customer orders the applicable ATM-CRS components pursuant to the provisions specified in this section and the applicable Special Access Service components pursuant to the provisions specified in Section 7, preceding.



ACCESS SERVICE

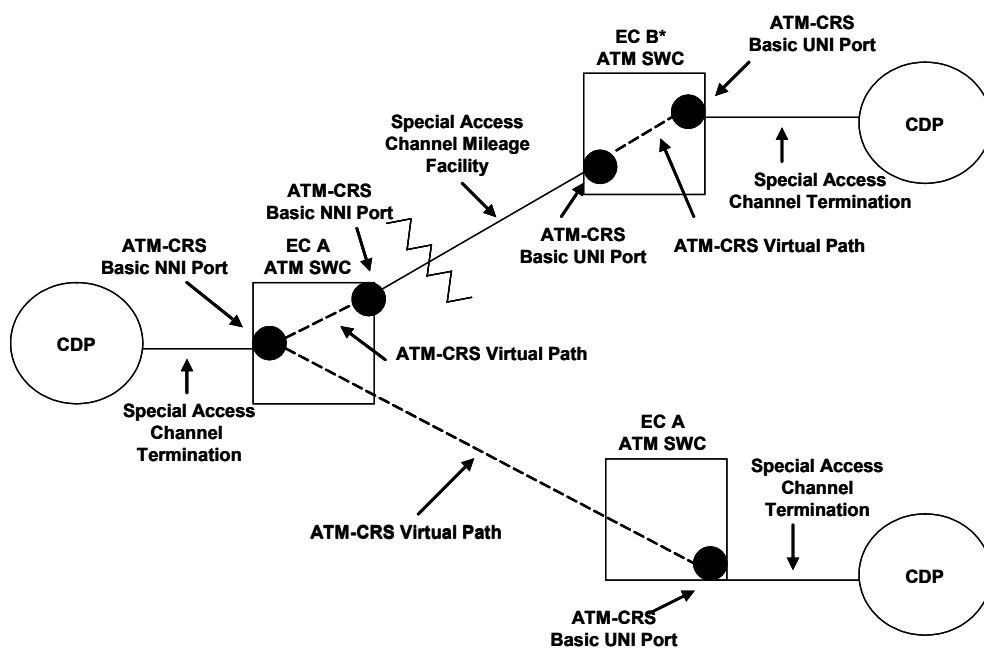
16. Public Packet Data Network

16.2 Asynchronous Transfer Mode Cell Relay Access Service

16.2.4 Rate Regulations (Cont'd)

In the third figure, one of the customer's CDPs is served by another company's ATM network. The ATM-CRS customer orders the applicable ATM-CRS components from the Company pursuant to the provisions specified in this section and the applicable Special Access Service Components pursuant to the provisions specified in Section 7, preceding. In addition, the customer will order the applicable ATM and Special Access Services components from the distant company.

Figure 3



* If EC B is a non-NECA company, the application of charges will depend on its access tariff.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations (Cont'd)(A) Rate Categories

The various ATM-CRS service components are described below.

(1) ATM-CRS Ports

An ATM-CRS Port receives ATM cells from the customer's ATM-compatible CPE, validates the addressing parameters contained in the cell headers, and transmits the cells into the ATM-CRS network. The ATM-CRS Port also receives ATM cells from the Company's ATM-CRS network or from an ATM network located outside of the Company's serving territory, validates the addressing parameters contained in the cell headers, and transmits the cells to the pre-designated CDP.

ATM-CRS Ports are available with a User Network Interface (UNI) or a Network to Network Interface (NNI) as described below. Each ATM-CRS Port must be associated with a minimum of one ATM-CRS Virtual Path or DSL Access Service Connection optional function.

Interconnection of the Company's ATM-CRS network to another ATM network located outside the Company's serving territory is provided using ATM-CRS Basic NNI ports and Company provided Special Access Services.

(a) Basic User Network Interface (UNI) Port

Basic UNI Ports provide a port only interface to the Company's ATM-CRS network and do not include the required transport facility between the CDP and the Company's SWC at which the basic UNI Port is located. Transport to connect the CDP with the basic UNI Port is provided using Company DS1 or DS3 High Capacity and/or Synchronous Optical Channel Special Access Services as described in Sections 7.10 and 7.11, preceding. Basic UNI Ports are available at bandwidth speeds of 1.544 Mbps, 44.736 Mbps, 155.52 Mbps and 622.08 Mbps.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(A) Rate Categories (Cont'd)

(b) Ethernet-based User Network Interface (UNI) Port

Ethernet-based UNI Ports are used to interconnect the customer's Ethernet-compatible CPE with the Company's ATM-CRS network and include the transport facility between the CDP and the Company's SWC, provided that the CDP is served by the SWC in which the Ethernet-based UNI Port is located. Ethernet-based UNI Ports are available at bandwidth speeds of up to 10 Mbps (i.e., 10Base-F), up to 100 Mbps (i.e., 100Base-F) and up to 1 Gbps (i.e., 1000Base-X).

(c) Basic Network to Network Interface (NNI) Port

Basic NNI Ports provide a port only interface to the Company's ATM-CRS network and do not include the required transport facility between the CDP and the Company's SWC at which the NNI is located. Transport to connect the CDP with the basic NNI Port is provided using Company provided DS1 or DS3 High Capacity and/or Synchronous Optical Channel Special Access Services described in Sections 7.10 and 7.11, preceding. Basic NNI Ports are available at bandwidth speeds of 1.544 Mbps, 44.736 Mbps, 155.52 Mbps, 622.08 Mbps, and 2.4 Gbps.

(d) Ethernet-based Network to Network Interface (NNI) Port

Ethernet-based NNI Ports are used to interconnect the customer's Ethernet-compatible CPE with the Company's ATM-CRS network and include a fiber only connection between the CDP and the Company's SWC, provided that the CDP is served by the SWC in which the Ethernet-based NNI Port is located. Ethernet-based NNI Ports are available at bandwidth speeds of up to 10 Mbps (i.e., 10Base-F), up to 100 Mbps (i.e., 100Base-F) and up to 1 Gbps (i.e., 1000Base-X).

Monthly and nonrecurring charges apply for each ATM-CRS Port ordered.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(A) Rate Categories (Cont'd)(2) ATM-CRS Virtual Paths

An ATM-CRS Virtual Path (VP) is a predefined, logical circuit established by the Company that is required to route ATM cells between any two ATM-CRS Ports located within the Company's ATM-CRS Network. VPs may be established between two ATM-CRS UNI Ports, between an ATM-CRS UNI Port and an ATM-CRS NNI Port, or between two ATM-CRS NNI Ports. VPs are available in increments of 1.5 Mbps.

The bandwidth capacity on a VP may not exceed the maximum bandwidth of the associated ATM-CRS Ports. In addition to specifying the bandwidth capacity required on its order, the customer must specify one of the following traffic routing prioritization parameters for each VP ordered.

(a) Constant Bit Rate (CBR)

CBR supports applications that require special network timing and minimal delay to ensure steady data flow of user information through the ATM-CRS network. Examples of applications requiring CBR include voice, some types of video and circuit emulation for higher speed special access services. CBR is the highest priority traffic on the network.

(b) Variable Bit Rate- real time (VBR-rt)

VBR-rt supports applications for which the data flow is bursty and requires low delay variance in ATM cell transmissions. Examples of applications requiring VBR-rt include voice and video.

(c) Variable Bit Rate- non real time (VBR-nrt)

VBR-nrt supports applications for which the data flow is bursty and variable delays in ATM cell transmissions can be tolerated. Examples of applications requiring VBR-nrt include file transfer, multimedia and computer aided design/computer aided manufacturing (CAD/CAM).

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(A) Rate Categories(2) ATM-CRS Virtual Paths (Cont'd)

(d) Unspecified Bit Rate (UBR)

UBR supports applications for which the data flow is bursty and delay tolerant using "best effort" engineering. The Company will attempt to deliver all ATM cells received on a UBR VP, however, network congestion may result in a loss of ATM cells. Examples of applications requiring UBR include interactive data sessions, file transfers, monitoring and signaling.

Monthly and nonrecurring charges apply for each VP ordered. The monthly recurring charge is comprised of a fixed path charge and a variable bandwidth capacity charge, which is calculated based on the total bandwidth of the VP. For example, the monthly charge for a single 145 Mbps VBR-rt path would equal \$2,542.50 (\$5.00 fixed plus \$17.50 per Megabit).

(3) ATM-CRS Virtual Circuit Channels (VCCs)

An ATM-CRS Virtual Circuit Channel (VCC) is a pre-defined logical circuit used to route ATM cells between any two CDPs served by the Company's ATM-CRS network. VCCs may be established by the customer using its CPE or by the Company in its ATM-CRS network via the service order process.

Monthly and nonrecurring charges apply for each VCC ordered by the customer. Rates and charges specified in Section 17.6.7.2, following, do not apply to VCCs established by the customer.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(A) Rate Categories (Cont'd)(4) Optional Features and Functions(a) DSL Access Service Connection

Where available, ATM-CRS UNI and/or NNI Ports may be equipped with the DSL Access Service Connection functions. This function provides for the interconnection of the ATM-CRS with Company provided ADSL Access Service as described in Technical Reference ANSI T1.413-1998. This optional function allows the ATM-CRS customer to receive ADSL data traffic from and transmit ADSL data traffic to its end user customers using UBR traffic routing prioritization parameter.

It is available only at Company designated DSL Access Service Connection Point SWCs located within the Company's serving territory. The speed of the DSL Access Service Connection function ordered by the customer may not exceed the speed of the associated ATM-CRS Port.

A nonrecurring charge applies per port to equip the ATM-CRS UNI or NNI Port with the DSL Access Service Connection function.

- (i) A customer that requires a VBR-nrt traffic routing prioritization parameter may also order a DSL VCC between its CDP and the premises of its end user customer. Each DSL VCC is available with a maximum bandwidth capacity of 1.5 Mbps, however, the maximum speed to or from the ADSL Access Service customer will not exceed the maximum peak speeds for the services. Monthly and nonrecurring charges apply to each DSL VCC established by the Company. The DSL VCC charges apply in addition to the nonrecurring charge for equipping the ATM-CRS UNI or NNI Port with the DSL Access Service Connection function.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(A) Rate Categories(4) Optional Features and Functions(a) DSL Access Service Connection (Cont'd)

- (ii) Where suitable facilities exist, a customer that requires the ability to send high speed multimedia transmission may also order a Multi-Media VCC (MM-VCC) between its CDP and the premises of its end user customer, provided such end user customer's premises is equipped with ADSL Access Service. The MM-VCC is available in increments of 1 Mbps, or 4 Mbps up to a maximum of 16 Mbps. The customer is responsible for specifying in its order the premises locations and the capacity of each MM-VCC. Transmission speed across the MM-VCC is not guaranteed and may be affected by factors that affect the actual speeds delivered, including the ADSL Access Service customer's distance from the Company Serving Wire Center, condition of the facilities, and any capacity limitations in the ATM-CRS customer's network design. Monthly and nonrecurring charges apply to each MM-VCC established by the Company. The MM-VCC charges apply in addition to the nonrecurring charge for equipping the ATM-CRS UNI or NNI Port with the DSL Access Service Connection function.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations (Cont'd)(B) Types of Rates and Charges

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described below:

(1) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that an ATM-CRS service component is provided. For billing purposes, each month is considered to have 30 days.

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for ATM-CRS are installation of service and service rearrangements. These charges are in addition to the Access Order Charge as specified in Section 17.3, following.

(a) Installation of Service

Nonrecurring charges apply for installation of Ports, VPs, VCCs and Optional Features and Functions ordered by the customer.

(b) Service Rearrangements

Service rearrangements are changes to existing (i.e., installed) services, which may be administrative only in nature as set forth below or, that involve actual physical change to the service.

The VP nonrecurring charge will apply per VP to change bandwidth capacity and/or to change the traffic route prioritization parameter on an existing VP.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(B) Types of Rates and Charges(2) Nonrecurring Charges(b) Service Rearrangements (Cont'd)

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name
- Change of customer or customer's end user premises address when the change of address is not a result of the physical relocation of equipment
- Change in billing data (name, address, or contact name or telephone number),
- Change in agency authorization,
- Change of customer circuit identification
- Change of billing account number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction

(c) Moves

A move involves a change in the physical location of one or more of the following:

- The Point of Termination at the customer's premises
- The customer's premises

The charges for moving ATM-CRS service components are dependent on whether the move is to a different location within the same building, to a different building within the same SWC, or to a different building in different SWC. The charges specified below apply in addition to any applicable charges for moving the associated Special Access Services as specified in Section 7, preceding.

ACCESS SERVICE

16. Public Packet Data Network16.2 Asynchronous Transfer Mode Cell Relay Access Service16.2.4 Rate Regulations(B) Types of Rates and Charges(2) Nonrecurring Charges(c) Moves (Cont'd)

(i) Moves Within the Same Building

Port only interfaces (i.e., Basic UNI/NNI Ports), VPs and VCCs are not impacted when a customer moves its Point of Termination to a different location within the same building. The charge for moving an Ethernet-based UNI or Ethernet-based NNI Port within the same building will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the port. There will be no change in the minimum period requirements.

(ii) Moves To a Different Building Within the Same SWC

Port only interfaces (i.e., Basic UNI/NNI Ports), VPs and VCCs are not impacted when a customer moves its Point of Termination to a different building within the same SWC. The move of an Ethernet-based UNI or Ethernet-based NNI Port will be treated as a discontinuance and start of service. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

(iii) Moves to a Different Building in a Different SWC

A move to a different building in a different SWC will be treated as a discontinuance and start of service of all associated ATM-CRS service components. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for discontinued service.

(C) Minimum Periods

The minimum period for ATM-CRS service components provided to a customer and for which charges are applicable are:

- Twelve months for ATM-CRS Ports
- One month for ATM-CRS Virtual Paths and Virtual Circuit Channels

ACCESS SERVICE

17. Rates and Charges17.1 Access Ordering17.1.1 Reserved For Future Use17.1.2 Federal Universal Service Charge

Regulations concerning the Federal Universal Service Charge are set forth in Section 3.9 preceding.

- (A) The FCC Contribution factor is subject to change quarterly. The current factor can be found at:

<http://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>

17.1.3 Reserved For Future Use17.1.4 DS1 Line Port

(A) DS1 Line Port	<u>Monthly Rate</u>
- per DS1 (1.544 Mbps) channel service	\$23.51

17.1.5 Access Ordering

Regulations concerning Access Ordering for Special Access are set forth in Section 5, preceding.

	<u>Charge</u>	<u>Section Reference</u>
(A) <u>Access Order Charge</u> - Per order	\$ 75.00	5.4.1
(B) <u>Miscellaneous Service Order Charge</u> - Per occurrence	\$ 50.00	5.4.2
(C) <u>Service Date Change Charge</u> - Per order, per occurrence	\$ 50.00	5.4.3
(D) <u>Design Change Charge</u> - Per order, per occurrence	\$ 50.00	5.4.3
(E) <u>Expedited Order Charge</u> - Per order, per business day	\$400.00	5.4.3

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.2 – 17.4 Reserved For Future Use

17.5 Special Access Service

17.5.1 Nonrecurring Charges

	<u>Nonrecurring Charge</u>	<u>Tariff Reference</u>
(A) <u>Reserved for Future Use</u>		
(B) <u>Reserved for Future Use</u>		
(C) <u>Voice Grade Service</u> ^[1]		7.6
(1) Installation		
Two-Wire	\$60.50	
Four-Wire	\$60.50	
(2) Conditioning	\$184.00	
(3) Improved Return Loss		
Two-Wire	\$37.00	
Four-Wire	\$74.00	
(D) <u>Program Audio Service</u> ^[1]		7.7
(1) Installation		
200 to 3500 Hz	\$112.00	
100 to 8000 Hz	\$112.00	
50 to 15000 Hz	\$112.00	
(2) Conditioning	\$73.00	
(3) Stereo	\$110.00	
(E) <u>Digital Data Service</u> ^[1]		7.8
(1) Installation		
2.4 kbps	\$150.00	
4.8 kbps	\$150.00	
9.6 kbps	\$150.00	
19.2 kbps	\$150.00	
56.0 kbps	\$150.00	
64.0 kbps	\$150.00	
(F) <u>High Capacity Service</u>		7.9
(1) Installation		
DS1	\$400.00	
DS3	\$815.00	

^[1] Effective February 1, 2020 Voice Grade, Program Audio and Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.2 – 17.4 Reserved For Future Use

17.5 Special Access Service

17.5.2 Surcharge for Special Access Service

	<u>Monthly Rate</u>	<u>Section Reference</u>
<u>Special Access Surcharge</u>		
Per Voice Grade Equivalent	\$25.00	7.3
17.5.3 <u>Reserved For Future Use</u>		
17.5.4 <u>Reserved For Future Use</u>		

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service^[1]

Regulations concerning Voice Grade Service are set forth in 7.6 preceding.

	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>	
Per Termination	
Two-Wire	\$93.00
Four-Wire	\$135.00
(B) <u>Channel Mileage</u>	
(1) <u>Channel Mileage Facility</u>	
Per Mile	\$3.60
(2) <u>Channel Mileage Termination</u>	
Per Termination	\$72.00
(C) <u>Optional Features and Functions</u>	
(1) <u>Bridging</u>	
(a) Voice Bridging, Per Port	
Two-Wire	\$3.85
Four-Wire	\$3.85

^[1] Effective February 1, 2020 Program Audio Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service ^[1] (Cont'd)

(C) Optional Features and Functions (Cont'd)

	<u>Monthly Rate</u>
(1) <u>Bridging</u> (Cont'd)	
(b) Data Bridging per port	
Two-Wire	\$5.35
Four-Wire	\$5.35
(c) Telemetry and Alarm Bridging	
Active Bridging Channel Connections	
Per channel connected	
Split Band	\$6.29
Summation	\$6.29
Passive Bridging Channel Connections	
Per channel connected	\$6.29

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.5 Voice Grade Service ^[1] (Cont'd)(C) Optional Features and Functions (Cont'd)

	<u>Monthly Rate</u>
(2) <u>Conditioning</u> Per Termination	
<u>C-Type</u>	\$4.25
<u>Improved Attenuation</u> <u>Distortion</u>	\$23.90
<u>Improved Envelope Delay</u> <u>Distortion</u>	\$21.05
<u>Data Capability</u>	\$2.95
<u>Telephoto Capability</u>	\$29.23
<u>Sealing Current</u>	\$23.90
(3) <u>Improved Return Loss for Effective</u> <u>Two-Wire or Four-Wire Transmission</u> Per Termination	
Two-Wire	\$0.95
Four-Wire	\$8.25
(4) <u>Customer Specified Receive Level</u> Per Two-Wire Termination	None

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.5 Voice Grade Service ^[1] (Cont'd)(C) Optional Features and Functions (Cont'd)

	<u>Monthly Rate</u>
(5) <u>Reserved for Future Use</u>	
(6) <u>Signaling Capability</u> Per termination	\$7.65
(7) <u>Selective Signaling Arrangement</u> Per arrangement	N/A
(8) <u>Transfer Arrangement</u> (Dial-Up ^[2])	
Per four port arrangement including control channel termination ³	N/A
Per five port arrangement including control channel termination ^[3]	N/A
(9) <u>Public Packet Switching Network (PPSN) Interface Arrangement</u> Per arrangement	N/A

^[1] Effective February 1, 2020 Voice Grade Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

^[2] The Dial-Up option requires the customer to purchase the Controller Arrangement

^[3] An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer designated premises. Additional channel mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.

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ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.6 Program Audio Service ^[1]

Regulations concerning Program Audio Service are set forth in 7.7 preceding.

		<u>Monthly Rate</u>	<u>Daily Rate</u>
(A)	<u>Channel Termination</u> Per Termination		
	200 to 3500 Hz	\$14.75	\$2.50
	100 to 8000 Hz	\$17.65	\$3.00
	50 to 15000 Hz	\$20.60	\$3.50
(B)	<u>Channel Mileage</u>		
(1)	<u>Channel Mileage Facility</u> Per Mile		
	200 to 3500 Hz	\$0.50	\$0.075
	100 to 8000 Hz	\$0.90	\$0.150
	50 to 15000 Hz	\$1.50	\$0.250
(2)	<u>Channel Mileage Termination</u> Per Termination		
	200 to 3500 Hz	\$5.90	\$1.00
	100 to 8000 Hz	\$8.85	\$1.50
	50 to 15000 Hz	\$14.75	\$2.50

^[1] Effective February 1, 2020 Program Audio Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service Cont'd)

17.5.6 Program Audio Service ^[1] (Cont'd)

(C) Optional Features and Functions

		<u>Monthly Rate</u>	<u>Daily Rate</u>
(1)	<u>Bridging, Distribution Amplifier</u> Per Port	\$9.18	\$0.92
(2)	<u>Gain Conditioning</u> Per Service	\$9.18	\$0.92
(3)	<u>Stereo</u> Per Service	\$7.50	\$0.92

^[1] Effective February 1, 2020 Program Audio Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

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ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.7 Digital Data Service ^[1]

Regulations concerning Digital Data Service are set forth in 7.9 preceding.

	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>	
Per termination	
2.4 kbps	\$235.00
4.8 kbps	\$235.00
9.6 kbps	\$235.00
19.2 kbps	\$235.00
56.0 kbps	\$235.00
64.0 kbps	\$235.00
(B) <u>Channel Mileage</u>	
(1) <u>Channel Mileage Facility</u>	
Per Mile	
2.4 kbps	\$3.60
4.8 kbps	\$3.60
9.6 kbps	\$3.60
19.2 kbps	\$3.60
56.0 kbps	\$3.60
64.0 kbps	\$3.60
(2) <u>Channel Mileage Termination</u>	
Per Termination	
2.4 kbps	\$124.00
4.8 kbps	\$124.00
9.6 kbps	\$124.00
19.2 kbps	\$124.00
56.0 kbps	\$124.00
64.0 kbps	\$124.00

^[1] Effective February 1, 2020 Digital Data Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

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ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.7 Digital Data Service^[1] (Cont'd)

	<u>Monthly Rate</u>
(C) <u>Optional Features and Functions</u>	
(1) <u>Bridging</u> Per Port	\$4.65
(2) <u>Loop Transfer Arrangement</u> (Dial-Up ^[3]) Per four port arrangement ^[2]	N/A
(3) <u>Public Packet Switching Network (PPSN)</u> <u>Interface Arrangement</u> Per 9.6 kbps arrangement	N/A
Per 56.0 kbps arrangement	N/A

^[1] Effective February 1, 2020 Program Audio Services are grandfathered. Availability to current customers is limited to circuits in service at existing locations.

^[2] An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer designated premises. Additional Channel Mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.

^[3] The Dial-Up option requires the customer to purchase the Controller Arrangement.

ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.8 High Capacity Service

Regulations concerning High Capacity Service are set forth in 7.9 preceding.

(A) Channel Termination

(1) Per Termination, End User

	<u>Monthly Rate</u>
DS1 (1.544 Mbps)	
CenturyTel of the Midwest-Kendall, LLC	\$700.00
CenturyTel of the Midwest-Wisconsin, LLC	700.00
CenturyTel of Monroe County, LLC	700.00
CenturyTel of San Marcos, Inc.	662.00
DS3 (44.736 Mbps)	
CenturyTel of the Midwest-Kendall, LLC	\$6,568.00
CenturyTel of the Midwest-Wisconsin, LLC	6,568.00
CenturyTel of Monroe County, LLC	6,568.00
CenturyTel of San Marcos, Inc.	6,211.00

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ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.8 High Capacity Service (Cont'd)(A) Channel Termination (Cont'd)

(2) Per Termination, POP

DS1 (1.544 Mbps)

	<u>Monthly Rate</u>
CenturyTel of the Midwest-Kendall, LLC	\$700.00
CenturyTel of the Midwest-Wisconsin, LLC	700.00
CenturyTel of Monroe County, LLC	700.00
CenturyTel of San Marcos, Inc.	662.00

DS3 (44.736 Mbps)

CenturyTel of the Midwest-Kendall, LLC	\$6,568.00
CenturyTel of the Midwest-Wisconsin, LLC	6,568.00
CenturyTel of Monroe County, LLC	6,568.00
CenturyTel of San Marcos, Inc.	6,211.00

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

(A) Channel Termination (Cont'd)

Per Mile, Over 3 Miles

DS1

DS3

Monthly Rate

N/A

N/A

(B) Channel Mileage

(1) Channel Mileage Facility

Per Mile

64 kbps - All Companies

\$3.60

1.544 Mbps

CenturyTel of the Midwest-Kendall, LLC	\$50.00	
CenturyTel of the Midwest-Wisconsin, LLC	\$50.00	
CenturyTel of Monroe County, LLC	\$50.00	
CenturyTel of San Marcos, Inc.	\$47.00	

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

Monthly Rate

(B) Channel Mileage (Cont'd)

(1) Channel Mileage Facility (Cont'd)
Per Mile

44.736 Mbps

CenturyTel of the Midwest-Kendall, LLC	\$470.00	
CenturyTel of the Midwest-Wisconsin, LLC	470.00	
CenturyTel of Monroe County, LLC	470.00	
CenturyTel of San Marcos, Inc.	444.00	

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

(B) Channel Mileage (Cont'd)

Monthly Rate

(2) Channel Mileage Termination

Per Termination

64 kbps – All Companies

\$124.00

1.544 Mbps

CenturyTel of the Midwest-Kendall, LLC	\$287.00	
CenturyTel of the Midwest-Wisconsin, LLC	287.00	
CenturyTel of Monroe County, LLC	287.00	
CenturyTel of San Marcos, Inc.	271.00	

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

(B) Channel Mileage (Cont'd)

(2) Channel Mileage Termination (Cont'd)
Per Termination

44.736 Mbps

Monthly Rate

CenturyTel of the Midwest-Kendall, LLC	\$2,687.00	
CenturyTel of the Midwest-Wisconsin, LLC	2,687.00	
CenturyTel of Monroe County, LLC	2,687.00	
CenturyTel of San Marcos, Inc.	2,541.00	

(C) Term Discount [1]
DS1 and DS3 Service
36 Months
60 Months

Percentage

10%
20%

[1] Effective May 16, 2019 the High Capacity Optional Rate Plan will be grandfathered until the expiration date of the current term. Term renewals will not be offered on these plans going forward as of this effective date. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.8 High Capacity Service (Cont'd)

- (D) The Company will waive the early discontinuance charge specified in Section 7.2.8(B)(1)(c) provided the customer maintains, in service, at least 90 percent of the interstate and intrastate circuits of a particular service type. The early discontinuance charge will be determined as follows.
- (1) On July 1 of each year, the Company will count the total number of circuits (intrastate and interstate) for each service type (e.g., DS1, DS3) in service by a customer. This will be the base circuit count for the next annual period, i.e. July 1 through June 30.
 - (2) Each time a circuit subject to an interstate early discontinuance charge is terminated, the Company will do the following:
 - (a) Count the number of intrastate and interstate circuits of the circuit type remaining in service.
 - (b) If the number remaining in service is below 90 percent of the base circuit count an early discontinuance charge will apply to each interstate circuit below the 90 percent base that is being discontinued.
 - (3) As an example, if a customer has 100 DS-1 intrastate and interstate circuits on July 1 and discontinues 5 interstate circuits during the following twelve month period, all early discontinuance charges will be waived. If, on the other hand, the customer discontinues 12 interstate circuits during the same period, the discontinuance charge will be waived with respect to the first 10 circuits, but the charge will apply to the eleventh and twelfth discontinued circuit.
 - (4) This waiver provision will not apply to any customer that did not have any intrastate or interstate circuits on July 1 of the preceding annual period.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

(E) Optional Features and Functions

Monthly Rate

- (1) Multiplexing
Per Arrangement
DS3 to DS1

CenturyTel of the Midwest-Kendall, LLC	\$1,600.00	
CenturyTel of the Midwest-Wisconsin, LLC	\$1,600.00	
CenturyTel of Monroe County, LLC	\$1,600.00	
CenturyTel of San Marcos, Inc.	\$1,513.00	

- DS1 to Voice ¹
DS DS1 to Voice ¹
DS1 to DS0

CenturyTel of the Midwest-Kendall, LLC	\$171.00	
CenturyTel of the Midwest-Wisconsin, LLC	\$171.00	
CenturyTel of Monroe County, LLC	\$171.00	
CenturyTel of San Marcos, Inc.	\$161.00	

- (2)

DSL

- (2) DSL Access Service Connection

- (a) Per 10BASE-T
(b) Per 100BASE-T

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$ 215.95	\$170.00
\$1,655.45	\$555.00

¹ Applies to through connections of 2.4, 4.8, 9.6, 56.0 and 64 kbps.

ACCESS SERVICE

17. Rates and Charges (Cont'd)17.5 Special Access Service (Cont'd)17.5.8 High Capacity Service (Cont'd)

(E) <u>Optional Features and Functions</u> (Cont'd)	<u>Monthly Rate</u>	
(3) <u>Automatic Loop Transfer</u> Per arrangement ⁽¹⁾	N/A	
(4) <u>Transfer Arrangement</u> (Dial-Up ⁽³⁾) Per four port arrangement including control channel termination ⁽⁴⁾	N/A	
(F) <u>Reserved for Future Use</u>		
(G) <u>Clear Channel Capability</u> Per 1.544 Mbps transmission path	N/A	
	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(H) <u>ADSL Access Service Connection</u>		
Per 1.544 Mbps	\$ 90.00	\$170.00
Per 44.736 Mbps	\$539.85	\$555.00
Per OC3	See Section 17.6.9 following	
(I) <u>Shared SONET Ring Interoffice Transport</u> Per DS3 Channel Mileage Facility		None

⁽¹⁾ An additional Channel Termination charge will apply whenever the spare line is provided as a leg to the customer designated premises.

⁽³⁾ The Dial-Up option requires the customer to purchase the Controller arrangement.

⁽⁴⁾ An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer premises. Additional channel mileage charges will apply when the transfer arrangement is not located in the customer designated premises serving wire center.

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ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service (Cont'd)17.5.9 Ethernet Transport(A) Channel Termination(1) Month-to-Month Rates

- Per Point of Termination

	<u>Monthly Rates</u>			<u>Nonrecurring Installation Charges</u>
	<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
10 Mbps	\$260.00	\$1,340.00	\$2,200.00	\$800.00
20 Mbps	\$930.00	\$1,360.00	\$2,240.00	\$900.00
50 Mbps	\$960.00	\$1,420.00	\$2,360.00	\$900.00
100 Mbps	\$1,020.00	\$2,040.00	\$3,910.00	\$1,000.00
150 Mbps	\$1,050.00	\$3,980.00	\$4,890.00	\$1,500.00
300 Mbps	\$1,090.00	\$4,450.00	\$5,380.00	\$5,000.00
450 Mbps	\$1,120.00	\$4,650.00	\$5,600.00	\$5,000.00
600 Mbps	\$1,140.00	\$4,830.00	\$5,810.00	\$10,000.00
1 Gbps	\$1,190.00	\$5,850.00	\$6,860.00	\$10,000.00
2.5 Gbps	\$1,785.00	\$9,765.00	\$11,430.00	\$10,000.00
10 Gbps	\$4,462.50	\$24,412.50	\$28,575.00	\$10,000.00

(2) 1 Year Commitment Rates

- Per Point of Termination

	<u>Monthly Rates</u>			<u>Nonrecurring Installation Charges</u>
	<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
10 Mbps	\$240.00	\$1,250.00	\$2,040.00	\$800.00
20 Mbps	\$860.00	\$1,270.00	\$2,090.00	\$900.00
50 Mbps	\$890.00	\$1,330.00	\$2,180.00	\$900.00
100 Mbps	\$940.00	\$1,910.00	\$3,640.00	\$1,000.00
150 Mbps	\$990.00	\$3,690.00	\$4,540.00	\$1,500.00
300 Mbps	\$1,020.00	\$4,130.00	\$5,000.00	\$5,000.00
450 Mbps	\$1,040.00	\$4,310.00	\$5,190.00	\$5,000.00
600 Mbps	\$1,050.00	\$4,480.00	\$5,410.00	\$10,000.00
1 Gbps	\$1,110.00	\$5,440.00	\$6,370.00	\$10,000.00
2.5 Gbps	\$1,665.00	\$9,060.00	\$10,620.00	\$10,000.00
10 Gbps	\$4,162.50	\$22,650.00	\$26,550.00	\$10,000.00

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ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.9 Ethernet Transport(A) Channel Termination (Cont'd)(3) 3 Year Commitment Rates

- Per Point of Termination

	<u>Monthly Rates</u>			<u>Nonrecurring Installation Charges</u>
	<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
10 Mbps	\$220.00	\$1,110.00	\$1,820.00	\$800.00
20 Mbps	\$470.00	\$1,120.00	\$1,840.00	\$900.00
50 Mbps	\$800.00	\$1,180.00	\$1,940.00	\$900.00
100 Mbps	\$840.00	\$1,690.00	\$3,220.00	\$1,000.00
150 Mbps	\$880.00	\$2,390.00	\$4,020.00	\$1,500.00
300 Mbps	\$910.00	\$3,210.00	\$4,420.00	\$5,000.00
450 Mbps	\$920.00	\$3,810.00	\$4,590.00	\$5,000.00
600 Mbps	\$930.00	\$3,970.00	\$4,780.00	\$10,000.00
1 Gbps	\$990.00	\$4,820.00	\$5,640.00	\$10,000.00
2.5 Gbps	\$1,485.00	\$8,025.00	\$9,390.00	\$10,000.00
10 Gbps	\$3,712.50	\$20,062.50	\$23,475.00	\$10,000.00

(4) 5 Year Commitment Rates

- Per Point of Termination

	<u>Monthly Rates</u>			<u>Nonrecurring Installation Charges</u>
	<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
10 Mbps	\$215.00	\$960.00	\$1,550.00	\$800.00
20 Mbps	\$400.00	\$970.00	\$1,600.00	\$900.00
50 Mbps	\$680.00	\$1,010.00	\$1,680.00	\$900.00
100 Mbps	\$730.00	\$1,460.00	\$3,100.00	\$1,000.00
150 Mbps	\$750.00	\$2,070.00	\$3,490.00	\$1,500.00
300 Mbps	\$780.00	\$2,790.00	\$3,840.00	\$5,000.00
450 Mbps	\$800.00	\$3,310.00	\$3,990.00	\$5,000.00
600 Mbps	\$810.00	\$3,450.00	\$4,150.00	\$10,000.00
1 Gbps	\$850.00	\$4,180.00	\$4,900.00	\$10,000.00
2.5 Gbps	\$1,275.00	\$6,975.00	\$8,160.00	\$10,000.00
10 Gbps	\$3,187.50	\$17,437.50	\$20,400.00	\$10,000.00

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ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.9 Ethernet Transport (Cont'd)(B) Channel Mileage(1) Month-to-Month Rates

	<u>Monthly Rates</u>	
	<u>Termination (Fixed)</u>	<u>Facility (Per Mile)</u>
10 Mbps	\$280.00	\$40.00
20 Mbps	\$290.00	\$50.00
50 Mbps	\$370.00	\$60.00
100 Mbps	\$600.00	\$100.00
150 Mbps	\$1,270.00	\$120.00
300 Mbps	\$1,910.00	\$200.00
450 Mbps	\$2,840.00	\$320.00
600 Mbps	\$3,530.00	\$490.00
1 Gbps	\$6,290.00	\$600.00
2.5 Gbps	\$9,435.00	\$900.00
10 Gbps	\$23,587.50	\$2,250.00

(2) 1 Year Commitment Rates

	<u>Monthly Rates</u>	
	<u>Termination (Fixed)</u>	<u>Facility (Per Mile)</u>
10 Mbps	\$260.00	\$35.00
20 Mbps	\$280.00	\$45.00
50 Mbps	\$340.00	\$55.00
100 Mbps	\$570.00	\$85.00
150 Mbps	\$1,180.00	\$110.00
300 Mbps	\$1,770.00	\$190.00
450 Mbps	\$2,630.00	\$300.00
600 Mbps	\$3,290.00	\$470.00
1 Gbps	\$5,840.00	\$570.00
2.5 Gbps	\$8,760.00	\$855.00
10 Gbps	\$21,900.00	\$2,137.50

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17. Rates and Charges

17.5 Special Access Service

17.5.9 Ethernet Transport

(B) Channel Mileage (Cont'd)

(3) 3 Year Commitment Rates

	<u>Monthly Rates</u>	
	<u>Termination (Fixed)</u>	<u>Facility (Per Mile)</u>
10 Mbps	\$160.00	\$24.00
20 Mbps	\$170.00	\$30.00
50 Mbps	\$210.00	\$37.50
100 Mbps	\$315.00	\$55.00
150 Mbps	\$475.00	\$68.00
300 Mbps	\$800.00	\$115.00
450 Mbps	\$1,100.00	\$165.00
600 Mbps	\$1,375.00	\$215.00
1 Gbps	\$2,200.00	\$300.00
2.5 Gbps	\$3,300.00	\$450.00
10 Gbps	\$8,250.00	\$1,125.00

(4) 5 Year Commitment Rates

	<u>Monthly Rates</u>	
	<u>Termination (Fixed)</u>	<u>Facility (Per Mile)</u>
10 Mbps	\$110.00	\$8.00
20 Mbps	\$120.00	\$10.00
50 Mbps	\$150.00	\$12.50
100 Mbps	\$225.00	\$18.00
150 Mbps	\$340.00	\$22.00
300 Mbps	\$575.00	\$36.00
450 Mbps	\$780.00	\$51.00
600 Mbps	\$985.00	\$65.00
1 Gbps	\$1,600.00	\$90.00
2.5 Gbps	\$2,400.00	\$135.00
10 Gbps	\$6,000.00	\$338.00

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17. Rates and Charges

17.5 Special Access Service (Cont'd)

17.5.10 Ethernet Virtual Private Line

(A) User-to-Network (UNI) Port Connection

(1) 10 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$380.00	\$360.00	\$340.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$315.00	\$275.00	\$275.00	\$1,000.00

(2) 100 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$380.00	\$360.00	\$340.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$315.00	\$275.00	\$275.00	\$1,000.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(A) User-to-Network (UNI) Port Connection (Cont'd)

(3) 1000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$1,395.00	\$1,325.00	\$1,240.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$1,155.00	\$1,010.00	\$960.00	\$3,000.00

(4) 10000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$4,180.00	\$3,980.00	\$3,720.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$3,460.00	\$3,025.00	\$2,880.00	\$3,000.00

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line (Cont'd)

(B) Network-to-Network (NNI) Port Connection

(1) 10 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$380.00	\$360.00	\$340.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$315.00	\$275.00	\$275.00	\$1,000.00

(2) 100 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$380.00	\$360.00	\$340.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$315.00	\$275.00	\$275.00	\$1,000.00

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(B) Network-to-Network (NNI) Port Connection (Cont'd)

(3) 1000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$1,395.00	\$1,325.00	\$1,240.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$1,155.00	\$1,010.00	\$960.00	\$3,000.00

(4) 10000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$4,180.00	\$3,980.00	\$3,720.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$3,460.00	\$3,025.00	\$2,880.00	\$3,000.00

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line (Cont'd)

(B)(1) External Network-to-Network (E-NNI) Port Connection

(1) 1000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$1,395.00	\$1,325.00	\$1,240.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$1,155.00	\$1,010.00	\$960.00	\$3,000.00

(2) 10000 Mbps

- Per Connection

<u>Monthly Rates</u>		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$4,180.00	\$3,980.00	\$3,720.00

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge*</u>
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
\$3,460.00	\$3,025.00	\$2,880.00	\$3,000.00

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line (Cont'd)

(C) Channel Mileage/ICO NNI Additional Mileage

- Per Mile – Exceeding 65 Miles **
- ICO NNI Additional Mileage (Per Mile) – Applicable to All Mileage **

Monthly Rates		
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>
\$0.00	\$0.00	\$0.00

Monthly Rates		
<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>
\$0.00	\$0.00	\$25.00

** This charge is applicable to the Bandwidth-Based Discount Plan Only.

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line (Cont'd)(D) Ethernet Virtual Connection (EVC) /Operator Virtual Connection (OVC)(1) Month-to-Month

Monthly Rates	
3 Mbps	\$80.00
5 Mbps	\$175.00
7 Mbps	\$310.00
10 Mbps	\$465.00
20 Mbps	\$590.00
30 Mbps	\$630.00
40 Mbps	\$715.00
50 Mbps	\$740.00
60 Mbps	\$800.00
70 Mbps	\$925.00
80 Mbps	\$975.00
90 Mbps	\$1,050.00
100 Mbps	\$1,070.00
200 Mbps	\$1,140.00
300 Mbps	\$1,210.00
400 Mbps	\$1,280.00
500 Mbps	\$1,365.00
600 Mbps	\$1,505.00
700 Mbps	\$1,645.00
800 Mbps	\$1,755.00
900 Mbps	\$1,865.00
1000 Mbps	\$1,975.00

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(D) Ethernet Virtual Connection (EVC)/Operator Virtual Connection (OVC)
(Cont'd)

(2) 1 Year

Monthly Rates	
3 Mbps	\$78.00
5 Mbps	\$170.00
7 Mbps	\$295.00
10 Mbps	\$440.00
20 Mbps	\$560.00
30 Mbps	\$600.00
40 Mbps	\$680.00
50 Mbps	\$705.00
60 Mbps	\$775.00
70 Mbps	\$880.00
80 Mbps	\$950.00
90 Mbps	\$1,000.00
100 Mbps	\$1,020.00
200 Mbps	\$1,085.00
300 Mbps	\$1,150.00
400 Mbps	\$1,220.00
500 Mbps	\$1,300.00
600 Mbps	\$1,435.00
700 Mbps	\$1,565.00
800 Mbps	\$1,670.00
900 Mbps	\$1,775.00
1000 Mbps	\$1,880.00

ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(D) Ethernet Virtual Connection (EVC) /Operator Virtual Connection (OVC)
(Cont'd)(3) 2 Year

Monthly Rates	
3 Mbps	\$77.00
5 Mbps	\$160.00
7 Mbps	\$240.00
10 Mbps	\$325.00
20 Mbps	\$535.00
30 Mbps	\$570.00
40 Mbps	\$650.00
50 Mbps	\$670.00
60 Mbps	\$750.00
70 Mbps	\$840.00
80 Mbps	\$925.00
90 Mbps	\$950.00
100 Mbps	\$970.00
200 Mbps	\$1,030.00
300 Mbps	\$1,095.00
400 Mbps	\$1,160.00
500 Mbps	\$1,235.00
600 Mbps	\$1,365.00
700 Mbps	\$1,490.00
800 Mbps	\$1,590.00
900 Mbps	\$1,690.00
1000 Mbps	\$1,790.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(D) Ethernet Virtual Connection (EVC) /Operator Virtual Connection (OVC)
(Cont'd)

(4) 3 Year

Monthly Rates	
3 Mbps	\$75.00
5 Mbps	\$150.00
7 Mbps	\$185.00
10 Mbps	\$210.00
20 Mbps	\$505.00
30 Mbps	\$540.00
40 Mbps	\$615.00
50 Mbps	\$635.00
60 Mbps	\$725.00
70 Mbps	\$795.00
80 Mbps	\$875.00
90 Mbps	\$900.00
100 Mbps	\$915.00
200 Mbps	\$975.00
300 Mbps	\$1,035.00
400 Mbps	\$1,095.00
500 Mbps	\$1,170.00
600 Mbps	\$1,290.00
700 Mbps	\$1,410.00
800 Mbps	\$1,505.00
900 Mbps	\$1,600.00
1000 Mbps	\$1,695.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(D) Ethernet Virtual Connection (EVC) /Operator Virtual Connection (OVC)
(Cont'd)(5) 5 Year

Monthly Rates	
3 Mbps	\$70.00
5 Mbps	\$145.00
7 Mbps	\$175.00
10 Mbps	\$200.00
20 Mbps	\$445.00
30 Mbps	\$475.00
40 Mbps	\$540.00
50 Mbps	\$555.00
60 Mbps	\$675.00
70 Mbps	\$695.00
80 Mbps	\$750.00
90 Mbps	\$775.00
100 Mbps	\$805.00
200 Mbps	\$855.00
300 Mbps	\$910.00
400 Mbps	\$960.00
500 Mbps	\$1,025.00
600 Mbps	\$1,130.00
700 Mbps	\$1,235.00
800 Mbps	\$1,320.00
900 Mbps	\$1,405.00
1000 Mbps	\$1,485.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(D) Ethernet Virtual Connection (EVC) /Operator Virtual Connection (OVC)
(Cont'd)

(6) 7 Year

Monthly Rates	
3 Mbps	\$70.00
5 Mbps	\$145.00
7 Mbps	\$175.00
10 Mbps	\$200.00
20 Mbps	\$420.00
30 Mbps	\$450.00
40 Mbps	\$510.00
50 Mbps	\$528.00
60 Mbps	\$625.00
70 Mbps	\$660.00
80 Mbps	\$700.00
90 Mbps	\$735.00
100 Mbps	\$762.00
200 Mbps	\$812.00
300 Mbps	\$862.00
400 Mbps	\$912.00
500 Mbps	\$972.00
600 Mbps	\$1,072.00
700 Mbps	\$1,172.00
800 Mbps	\$1,252.00
900 Mbps	\$1,332.00
1000 Mbps	\$1,410.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line (Cont'd)(E) Quality of Service (QoS)(1) Month-to-Month

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$137.00	\$16.00	\$0.00
5 Mbps	\$228.00	\$27.00	\$0.00
7 Mbps	\$319.00	\$37.00	\$0.00
10 Mbps	\$455.00	\$53.00	\$0.00
20 Mbps	\$590.00	\$103.00	\$0.00
30 Mbps	\$615.00	\$135.00	\$0.00
40 Mbps	\$630.00	\$159.00	\$0.00
50 Mbps	\$660.00	\$187.00	\$0.00
60 Mbps	\$680.00	\$200.00	\$0.00
70 Mbps	\$700.00	\$229.00	\$0.00
80 Mbps	\$750.00	\$260.00	\$0.00
90 Mbps	\$775.00	\$285.00	\$0.00
100 Mbps	\$825.00	\$317.00	\$0.00
200 Mbps	\$940.00	\$381.00	\$0.00
300 Mbps	\$1,045.00	\$439.00	\$0.00
400 Mbps	\$1,140.00	\$493.00	\$0.00
500 Mbps	\$1,475.00	\$583.00	\$0.00
600 Mbps	\$1,655.00	\$657.00	\$0.00
700 Mbps	\$1,830.00	\$731.00	\$0.00
800 Mbps	\$1,965.00	\$793.00	\$0.00
900 Mbps	\$2,095.00	\$854.00	\$0.00
1000 Mbps	\$2,225.00	\$915.00	\$0.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(E) Quality of Service (QoS)(2) 1 Year

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$130.00	\$14.00	\$0.00
5 Mbps	\$217.00	\$23.00	\$0.00
7 Mbps	\$304.00	\$32.00	\$0.00
10 Mbps	\$434.00	\$46.00	\$0.00
20 Mbps	\$562.00	\$90.00	\$0.00
30 Mbps	\$585.00	\$118.00	\$0.00
40 Mbps	\$600.00	\$139.00	\$0.00
50 Mbps	\$629.00	\$163.00	\$0.00
60 Mbps	\$650.00	\$180.00	\$0.00
70 Mbps	\$677.00	\$200.00	\$0.00
80 Mbps	\$725.00	\$225.00	\$0.00
90 Mbps	\$750.00	\$250.00	\$0.00
100 Mbps	\$787.00	\$277.00	\$0.00
200 Mbps	\$895.00	\$333.00	\$0.00
300 Mbps	\$995.00	\$384.00	\$0.00
400 Mbps	\$1,087.00	\$431.00	\$0.00
500 Mbps	\$1,405.00	\$510.00	\$0.00
600 Mbps	\$1,575.00	\$575.00	\$0.00
700 Mbps	\$1,744.00	\$640.00	\$0.00
800 Mbps	\$1,870.00	\$694.00	\$0.00
900 Mbps	\$1,995.00	\$748.00	\$0.00
1000 Mbps	\$2,120.00	\$801.00	\$0.00

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ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(E) Quality of Service (QoS)(3) 2 Year

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$124.00	\$12.00	\$0.00
5 Mbps	\$207.00	\$20.00	\$0.00
7 Mbps	\$289.00	\$27.00	\$0.00
10 Mbps	\$413.00	\$39.00	\$0.00
20 Mbps	\$534.00	\$77.00	\$0.00
30 Mbps	\$555.00	\$101.00	\$0.00
40 Mbps	\$570.00	\$119.00	\$0.00
50 Mbps	\$598.00	\$139.00	\$0.00
60 Mbps	\$615.00	\$145.00	\$0.00
70 Mbps	\$634.00	\$171.00	\$0.00
80 Mbps	\$675.00	\$195.00	\$0.00
90 Mbps	\$685.00	\$215.00	\$0.00
100 Mbps	\$749.00	\$237.00	\$0.00
200 Mbps	\$850.00	\$285.00	\$0.00
300 Mbps	\$945.00	\$329.00	\$0.00
400 Mbps	\$1,034.00	\$369.00	\$0.00
500 Mbps	\$1,335.00	\$437.00	\$0.00
600 Mbps	\$1,497.00	\$493.00	\$0.00
700 Mbps	\$1,658.00	\$549.00	\$0.00
800 Mbps	\$1,777.00	\$595.00	\$0.00
900 Mbps	\$1,896.00	\$641.00	\$0.00
1000 Mbps	\$2,015.00	\$687.00	\$0.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(E) Quality of Service (QoS) (Cont'd)(4) 3 Year

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$117.00	\$9.00	\$0.00
5 Mbps	\$195.00	\$16.00	\$0.00
7 Mbps	\$273.00	\$22.00	\$0.00
10 Mbps	\$390.00	\$31.00	\$0.00
20 Mbps	\$505.00	\$63.00	\$0.00
30 Mbps	\$525.00	\$83.00	\$0.00
40 Mbps	\$540.00	\$99.00	\$0.00
50 Mbps	\$565.00	\$115.00	\$0.00
60 Mbps	\$580.00	\$125.00	\$0.00
70 Mbps	\$600.00	\$141.00	\$0.00
80 Mbps	\$635.00	\$160.00	\$0.00
90 Mbps	\$675.00	\$180.00	\$0.00
100 Mbps	\$710.00	\$197.00	\$0.00
200 Mbps	\$805.00	\$237.00	\$0.00
300 Mbps	\$895.00	\$273.00	\$0.00
400 Mbps	\$980.00	\$307.00	\$0.00
500 Mbps	\$1,265.00	\$363.00	\$0.00
600 Mbps	\$1,420.00	\$410.00	\$0.00
700 Mbps	\$1,570.00	\$457.00	\$0.00
800 Mbps	\$1,685.00	\$495.00	\$0.00
900 Mbps	\$1,800.00	\$533.00	\$0.00
1000 Mbps	\$1,910.00	\$571.00	\$0.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(E) Quality of Service (QoS)(5) 5 Year

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$104.00	\$8.00	\$0.00
5 Mbps	\$173.00	\$14.00	\$0.00
7 Mbps	\$242.00	\$19.00	\$0.00
10 Mbps	\$345.00	\$27.00	\$0.00
20 Mbps	\$440.00	\$57.00	\$0.00
30 Mbps	\$460.00	\$75.00	\$0.00
40 Mbps	\$475.00	\$89.00	\$0.00
50 Mbps	\$495.00	\$103.00	\$0.00
60 Mbps	\$505.00	\$119.00	\$0.00
70 Mbps	\$525.00	\$127.00	\$0.00
80 Mbps	\$550.00	\$140.00	\$0.00
90 Mbps	\$580.00	\$155.00	\$0.00
100 Mbps	\$620.00	\$179.00	\$0.00
200 Mbps	\$705.00	\$215.00	\$0.00
300 Mbps	\$785.00	\$247.00	\$0.00
400 Mbps	\$855.00	\$279.00	\$0.00
500 Mbps	\$1,110.00	\$329.00	\$0.00
600 Mbps	\$1,245.00	\$372.00	\$0.00
700 Mbps	\$1,375.00	\$415.00	\$0.00
800 Mbps	\$1,475.00	\$450.00	\$0.00
900 Mbps	\$1,575.00	\$485.00	\$0.00
1000 Mbps	\$1,670.00	\$519.00	\$0.00

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17. Rates and Charges17.5 Special Access Service17.5.10 Ethernet Virtual Private Line(E) Quality of Service (QoS)(6) 7 Year

	Monthly Rates		
	<u>Gold</u>	<u>Silver</u>	<u>Best Effort</u>
3 Mbps	\$97.00	\$8.00	\$0.00
5 Mbps	\$162.00	\$14.00	\$0.00
7 Mbps	\$227.00	\$19.00	\$0.00
10 Mbps	\$324.00	\$27.00	\$0.00
20 Mbps	\$419.00	\$57.00	\$0.00
30 Mbps	\$437.00	\$75.00	\$0.00
40 Mbps	\$450.00	\$89.00	\$0.00
50 Mbps	\$468.00	\$103.00	\$0.00
60 Mbps	\$475.00	\$110.00	\$0.00
70 Mbps	\$500.00	\$127.00	\$0.00
80 Mbps	\$515.00	\$130.00	\$0.00
90 Mbps	\$550.00	\$140.00	\$0.00
100 Mbps	\$589.00	\$179.00	\$0.00
200 Mbps	\$669.00	\$215.00	\$0.00
300 Mbps	\$744.00	\$247.00	\$0.00
400 Mbps	\$814.00	\$279.00	\$0.00
500 Mbps	\$1,053.00	\$329.00	\$0.00
600 Mbps	\$1,179.00	\$372.00	\$0.00
700 Mbps	\$1,305.00	\$415.00	\$0.00
800 Mbps	\$1,400.00	\$450.00	\$0.00
900 Mbps	\$1,495.00	\$485.00	\$0.00
1000 Mbps	\$1,589.00	\$519.00	\$0.00

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line (Cont'd)

(F) EVPL Reconfiguration

- Per EVC or QoS Established or Reconfigured

Nonrecurring
Charge*

\$400.00

* The EVPL Reconfiguration charge does not apply to EVPL arrangements ordered under a 7 year term commitment.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line (Cont'd)

(G) ICO NNI Trunk Connection (per EVC)

(1) 3 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$555.00	\$460.00	\$380.00	\$330.00	\$400.00

- Per Connection

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year*</u>
\$290.00	\$250.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(2) 5 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$625.00	\$520.00	\$430.00	\$365.00	\$460.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$315.00	\$280.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(3) 7 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$715.00	\$590.00	\$485.00	\$415.00	\$530.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$360.00	\$310.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(4) 10 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$820.00	\$680.00	\$565.00	\$485.00	\$605.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$415.00	\$360.00

(5) 20 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$970.00	\$805.00	\$670.00	\$580.00	\$690.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$495.00	\$430.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(6) 50 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$1,220.00	\$1,015.00	\$840.00	\$725.00	\$805.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$625.00	\$540.00

(7) 100 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$1,625.00	\$1,350.00	\$1,120.00	\$970.00	\$920.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$830.00	\$720.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(8) 200 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$2,760.00	\$2,300.00	\$1,910.00	\$1,660.00	\$1,380.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$1,415.00	\$1,220.00

(9) 300 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$3,925.00	\$3,270.00	\$2,715.00	\$2,360.00	\$1,380.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$2,010.00	\$1,730.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(10) 400 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$5,970.00	\$4,970.00	\$4,135.00	\$3,595.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$3,060.00	\$2,640.00		

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(11) 500 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$6,685.00	\$5,570.00	\$4,635.00	\$4,025.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$3,430.00	\$2,950.00		

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(12) 600 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$8,005.00	\$6,670.00	\$5,555.00	\$4,830.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$4,110.00	\$3,540.00		

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(13) 700 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$8,065.00	\$6,720.00	\$5,750.00	\$5,085.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$4,370.00	\$3,760.00		

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(14) 800 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$8,280.00	\$6,900.00	\$5,915.00	\$5,225.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$4,485.00	\$3,860.00		

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(15) 900 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$8,510.00	\$7,085.00	\$6,065.00	\$5,360.00	\$1,380.00
<u>Monthly Rates</u>				
	<u>5 Year</u>	<u>7 Year *</u>		
	\$4,600.00	\$3,960.00		

* Nonrecurring installation charges do not apply to the 7 year term.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.10 Ethernet Virtual Private Line

(G) ICO NNI Trunk Connection (per EVC) (Cont'd)

(16) 1000 Mbps

- Per Connection

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>2 Year</u>	<u>3 Year</u>	
\$9,110.00	\$7,590.00	\$6,325.00	\$5,555.00	\$1,380.00

<u>Monthly Rates</u>	
<u>5 Year</u>	<u>7 Year *</u>
\$4,715.00	\$4,060.00

* Nonrecurring installation charges do not apply to the 7 year term.

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17. Rates and Charges17.5 Special Access Service (Cont'd)17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans(A) Service Element Term Plan – See 7 year terms in Section 17.5.10.(B) Bandwidth Profile Plan(1) EVPL Port

		<u>Non-Recurring Charge</u>
a.	10/100 Mbps, Per EVPL Port	
	• Monthly	\$ 600.00
	• 12 Months	\$ 600.00
	• 24 Months	\$ 600.00
	• 36 Months	\$ 600.00
	• 60 Months	\$ 600.00
b.	1,000 Mbps, Per EVPL Port	
	• Monthly	\$ 1,200.00
	• 12 Months	\$ 1,200.00
	• 24 Months	\$ 1,200.00
	• 36 Months	\$ 1,200.00
	• 60 Months	\$ 1,200.00
c.	10,000 Mbps, Per EVPL Port	
	• Monthly	\$ 3,000.00
	• 12 Months	\$ 3,000.00
	• 24 Months	\$ 3,000.00
	• 36 Months	\$ 3,000.00
	• 60 Months	\$ 3,000.00

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17. Rates and Charges17.5 Special Access Service17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans(B) Bandwidth Profile Plan (Cont'd)(2) Customer Premises Bandwidtha. Per 10/100 Mbps Port

	Monthly Rates				
	Monthly	12 Month	24 Month	36 Month	60 Month
3 Bandwidth	\$374.00	\$352.00	\$330.00	\$307.00	\$285.00
5 Bandwidth	\$462.00	\$435.00	\$407.00	\$379.00	\$352.00
7 Bandwidth	\$589.00	\$554.00	\$519.00	\$483.00	\$448.00

b. Per 10/100/1,000 Mbps Port

10 Bandwidth	\$757.00	\$712.00	\$667.00	\$621.00	\$576.00
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c. Per 100/1,000 Mbps Port

20 Bandwidth	\$967.00	\$918.70	\$875.00	\$822.00	\$773.60
30 Bandwidth	\$1,034.00	\$982.30	\$935.00	\$878.90	\$827.20
40 Bandwidth	\$1,101.00	\$1,046.00	\$995.00	\$935.00	\$880.80
50 Bandwidth	\$1,168.00	\$1,109.60	\$1,055.00	\$992.80	\$934.40
60 Bandwidth	\$1,235.00	\$1,173.30	\$1,115.00	\$1,049.80	\$988.00
70 Bandwidth	\$1,302.00	\$1,236.90	\$1,175.00	\$1,106.70	\$1,041.60
80 Bandwidth	\$1,369.00	\$1,300.60	\$1,235.00	\$1,163.70	\$1,095.20
90 Bandwidth	\$1,436.00	\$1,364.20	\$1,295.00	\$1,220.60	\$1,148.80
100 Bandwidth	\$1,500.00	\$1,425.00	\$1,355.00	\$1,275.00	\$1,200.00

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17. Rates and Charges17.5 Special Access Service17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans(B) Bandwidth Profile Plan (Cont'd)(2) Customer Premises Bandwidth (Cont'd)d. Per 1,000 Mbps Port

	Monthly Rates				
	<u>Monthly</u>	<u>12 Month</u>	<u>24 Month</u>	<u>36 Month</u>	<u>60 Month</u>
100 Bandwidth	\$1,500.00	\$1,425.00	\$1,355.00	\$1,275.00	\$1,200.00
200 Bandwidth	\$2,089.00	\$1,984.60	\$1,885.00	\$1,775.70	\$1,671.20
300 Bandwidth	\$2,678.00	\$2,544.10	\$2,415.00	\$2,276.30	\$2,142.40
400 Bandwidth	\$3,267.00	\$3,103.70	\$2,945.00	\$2,777.00	\$2,613.60
500 Bandwidth	\$3,856.00	\$3,663.20	\$3,475.00	\$3,277.60	\$3,084.80
600 Bandwidth	\$4,445.00	\$4,222.80	\$4,005.00	\$3,778.30	\$3,556.00
700 Bandwidth	\$5,034.00	\$4,782.30	\$4,535.00	\$4,278.90	\$4,027.20
800 Bandwidth	\$5,623.00	\$5,341.90	\$5,065.00	\$4,779.60	\$4,498.40
900 Bandwidth	\$6,212.00	\$5,901.40	\$5,595.00	\$5,280.20	\$4,969.60
1,000 Bandwidth	\$6,800.00	\$6,460.00	\$6,125.00	\$5,780.20	\$5,440.00

e. Per 10,000 Mbps Port *

	<u>Monthly</u>
2 Gbps Bandwidth	\$7,191.00
3 Gbps Bandwidth	\$7,581.00
4 Gbps Bandwidth	\$7,972.00
5 Gbps Bandwidth	\$8,362.00
6 Gbps Bandwidth	\$8,753.00
7 Gbps Bandwidth	\$9,143.00
8 Gbps Bandwidth	\$9,534.00
9 Gbps Bandwidth	\$9,924.00
10 Gbps Bandwidth	\$10,316.00

* Available where facilities exist.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans

(B) Bandwidth Profile Plan (Cont'd)

(3) Ethernet Virtual Connection (EVC) / Operator Virtual Connection (OVC) [1]

	<u>Rate</u>
Monthly Per EVC/OVC Per Port	\$50.00

(4) Network to Network (NNI) Port Connection [1]

	<u>Monthly Rate</u>
a. 1,000 Mbps	
• Monthly	\$ 3,585.74
• 12 Months	\$ 3,414.99
• 24 Months	\$ 3,252.38
• 36 Months	\$ 3,097.50
• 60 Months	\$ 2,950.00
b. 10,000 Mbps	
• Monthly	\$ 10,757.23
• 12 Months	\$ 10,244.98
• 24 Months	\$ 9,757.13
• 36 Months	\$ 9,292.50
• 60 Months	\$ 8,850.00

(5) Quality of Service (QoS)

See QoS rates in Section 17.5.10

[1] Rates for the Ethernet Virtual Connection (EVC)/Operator Virtual Connection (OVC) and Network to Network (NNI) Port Connection displayed on this page are available for the Bandwidth Profile only.

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans

(C) High Volume Based Plan (Cont'd)

(1) 7 Year UNI

<u>Monthly Rates</u>				
<u>100 Mbps</u>	<u>200 Mbps</u>	<u>300 Mbps</u>	<u>400 Mbps</u>	<u>500 Mbps</u>
\$1,408.00	\$1,940.00	\$2,240.00	\$2,530.00	\$2,755.00

<u>Monthly Rates</u>				
<u>600 Mbps</u>	<u>700 Mbps</u>	<u>800 Mbps</u>	<u>900 Mbps</u>	<u>1000 Mbps</u>
\$2,945.00	\$3,145.00	\$3,311.00	\$3,536.00	\$3,726.00

<u>Monthly Rates</u>	
<u>1400 Mbps</u>	<u>2000 Mbps</u>
\$4,256.00	\$5,051.00

(2) 7 Year NNI

<u>Monthly Rates</u>	
<u>1000 Mbps</u>	<u>10 Gbps</u>
\$0.00	\$0.00

(3) 7 Year OAM EVC

<u>Monthly Rates</u>
<u>5 Mbps</u>
\$25.00

ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans(C) High Volume Based Plan (Cont'd)(4) 7 Year Additional EVC Connection ChargeMonthly Rates

\$25.00

(5) ICO NNI Trunk Connection (Per Connection)Monthly Rates1000 Mbps
(1 Gbps)

\$0.00

10000 Mbps
(10 Gbps)

\$0.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.11 Ethernet Virtual Private Line Fixed Rate Term Plans (Cont'd)

(D) Low Volume Based Plan

(1) 7 Year - UNI

Monthly Rates

<u>100 Mbps</u>	<u>200 Mbps</u>	<u>400 Mbps</u>	<u>600 Mbps</u>	<u>800 Mbps</u>	<u>1000 Mbps</u>
\$908.00	\$1,585.00	\$2,250.00	\$2,615.00	\$2,781.00	\$2,965.00

(2) 7 Year - NNI

Monthly Rates

<u>1000 Mbps (1 Gbps)</u>	<u>10000 Mbps (10 Gbps)</u>
\$960.00	\$2,880.00

(3) 7 Year - Additional EVC Connection Charge

Monthly Rates

\$250.00

(4) ICO NNI Trunk Connection (Per Connection)

Monthly Rates

<u>1000 Mbps (1 Gbps)</u>	<u>10000 Mbps (10 Gbps)</u>
\$960.00	\$2,880.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service (Cont'd)

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(1) Month-to Month

OC3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$240.00	\$2,200.00	\$2,530.00	\$7,500.00

OC12

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$420.00	\$2,565.00	\$2,950.00	\$7,500.00

OC48

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$900.00	\$4,740.00	\$5,455.00	\$7,500.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(1) Month-to Month (Cont'd)

OC192

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,800.00	\$5,940.00	\$6,835.00	\$7,500.00

Gigabit Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$600.00	\$3,660.00	\$4,215.00	\$7,500.00

10 G LAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,800.00	\$5,940.00	\$6,835.00	\$7,500.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(1) Month-to Month (Cont'd)

10 G WAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,800.00	\$5,940.00	\$6,835.00	\$7,500.00

OTU1

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$900.00	\$4,740.00	\$5,455.00	\$7,500.00

OTU2

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,800.00	\$5,940.00	\$6,835.00	\$7,500.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(1) Month-to Month (Cont'd)

OTU3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$4,500.00	\$19,650.00	\$22,605.00	\$7,500.00

100 GB Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$9,000.00	\$29,700.00	\$34,160.00	\$7,500.00

OTU4

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$9,000.00	\$29,700.00	\$34,160.00	\$7,500.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination (Cont'd)

(2) 1 Year

OC3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$200.00	\$1,830.00	\$2,105.00	\$3,750.00

OC12

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$350.00	\$2,135.00	\$2,455.00	\$3,750.00

OC48

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$750.00	\$3,950.00	\$4,545.00	\$3,750.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(2) 1 Year (Cont'd)

OC192

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,500.00	\$4,950.00	\$5,695.00	\$3,750.00

Gigabit Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$500.00	\$3,050.00	\$3,510.00	\$3,750.00

10 G LAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,500.00	\$4,950.00	\$5,695.00	\$3,750.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(2) 1 Year (Cont'd)

10 GB WAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,500.00	\$4,950.00	\$5,695.00	\$3,750.00

OTU1

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$750.00	\$3,950.00	\$4,545.00	\$3,750.00

OTU2

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,500.00	\$4,950.00	\$5,695.00	\$3,750.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(2) 1 Year (Cont'd)

OTU3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$3,750.00	\$16,375.00	\$18,835.00	\$3,750.00

100 GB Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$7,500.00	\$24,750.00	\$28,465.00	\$3,750.00

OTU4

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$7,500.00	\$24,750.00	\$28,465.00	\$3,750.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination (Cont'd)

(3) 3 Year

OC3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$145.00	\$1,335.00	\$1,535.00	\$1,875.00

OC12

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$255.00	\$1,555.00	\$1,790.00	\$1,875.00

OC48

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$545.00	\$2,880.00	\$3,315.00	\$1,875.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(3) 3 Year (Cont'd)

OC192

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,085.00	\$3,600.00	\$4,140.00	\$1,875.00

Gigabit Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$365.00	\$2,220.00	\$2,555.00	\$1,875.00

10 G LAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,085.00	\$3,600.00	\$4,140.00	\$1,875.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(3) 3 Year (Cont'd)

10 G WAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,085.00	\$3,600.00	\$4,140.00	\$1,875.00

OTU1

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$545.00	\$2,880.00	\$3,315.00	\$1,875.00

OTU2

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$1,085.00	\$3,600.00	\$4,140.00	\$1,875.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(3) 3 Year (Cont'd)

OTU3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$2,710.00	\$11,860.00	\$13,640.00	\$1,875.00

100 Gb Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$5,420.00	\$17,885.00	\$20,565.00	\$1,875.00

OTU4

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$5,420.00	\$17,885.00	\$20,565.00	\$1,875.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination (Cont'd)

(4) 5 Year

OC3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$125.00	\$1,185.00	\$1,280.00	\$0.00

OC12

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$215.00	\$1,300.00	\$1,495.00	\$0.00

OC48

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$465.00	\$2,400.00	\$2,760.00	\$0.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(4) 5 Year (Cont'd)

OC192

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$925.00	\$2,995.00	\$3,445.00	\$0.00

Gigabit Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$310.00	\$1,855.00	\$2,135.00	\$0.00

10 G LAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$925.00	\$2,995.00	\$3,445.00	\$0.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(4) 5 Year (Cont'd)

10 G WAN

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$925.00	\$2,995.00	\$3,445.00	\$0.00

OTU1

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$465.00	\$2,400.00	\$2,760.00	\$0.00

OTU2

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$925.00	\$2,995.00	\$3,445.00	\$0.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(A) Channel Termination

(4) 5 Year (Cont'd)

OTU3

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$2,305.00	\$9,870.00	\$11,355.00	\$0.00

100 Gb Ethernet

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$4,605.00	\$14,310.00	\$16,455.00	\$0.00

OTU4

- Per Connection

<u>Monthly Rates</u>			<u>Nonrecurring Installation Charge</u>
<u>Within CO</u>	<u>0-3 Miles</u>	<u>Over 3 Miles</u>	
\$4,605.00	\$14,310.00	\$16,455.00	\$0.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS) (Cont'd)

(B) Channel Mileage

(1) Month-to-Month

OC3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$240.00	\$5.00

OC12

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$420.00	\$10.00

OC48

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$900.00	\$25.00

OC192

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,200.00	\$60.00

Gigabit Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$600.00	\$15.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(1) Month-to-Month (Cont'd)

10 G LAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,200.00	\$60.00

10 G WAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,200.00	\$60.00

OTU1

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$900.00	\$25.00

OTU2

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,200.00	\$60.00

ACCESS SERVICE

17. Rates and Charges17.5 Special Access Service17.5.12 Optical Wavelength Service (OWS)(B) Channel Mileage(1) Month-to-Month (Cont'd)OTU3Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,800.00	\$145.00

100 Gb EthernetMonthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$3,000.00	\$340.00

OTU4Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$3,000.00	\$340.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage (Cont'd)

(2) 1 Year

OC3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$200.00	\$4.00

OC12

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$350.00	\$8.00

OC48

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$750.00	\$19.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(2) 1 Year (Cont'd)

OC192

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,000.00	\$50.00

Gigabit Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$500.00	\$10.00

10 G LAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,000.00	\$50.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(2) 1 Year (Cont'd)

10 GB WAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,000.00	\$50.00

OTU1

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$750.00	\$19.00

OTU2

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,000.00	\$50.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(2) 1 Year (Cont'd)

OTU3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,500.00	\$120.00

100 Gb Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$2,500.00	\$280.00

OTU4

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$2,500.00	\$280.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage (Cont'd)

(3) 3 Year

OC3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$130.00	\$3.00

OC12

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$225.00	\$6.00

OC48

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$480.00	\$14.00

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17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(3) 3 Year (Cont'd)

OC192

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$640.00	\$35.00

Gigabit Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$320.00	\$7.00

10 G LAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$640.00	\$35.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(3) 3 Year (Cont'd)

10 G WAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$640.00	\$35.00

OTU1

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$480.00	\$14.00

OTU2

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$640.00	\$35.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(3) 3 Year (Cont'd)

OTU3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$960.00	\$90.00

100 Gb Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,600.00	\$210.00

OTU4

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,600.00	\$210.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage (Cont'd)

(4) 5 Year

OC3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$105.00	\$2.25

OC12

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$180.00	\$5.00

OC48

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$385.00	\$12.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(4) 5 Year (Cont'd)

OC192

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$515.00	\$30.00

Gigabit Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$260.00	\$6.00

10 G LAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$515.00	\$30.00

10 G WAN

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$515.00	\$30.00

OTU1

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$385.00	\$12.00

ACCESS SERVICE

17. Rates and Charges

17.5 Special Access Service

17.5.12 Optical Wavelength Service (OWS)

(B) Channel Mileage

(4) 5 Year (Cont'd)

OTU2

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$515.00	\$30.00

OTU3

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$768.00	\$70.00

100 Gb Ethernet

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,280.00	\$170.00

OTU4

Monthly Rates

<u>Termination</u>	<u>Facility (Per Mile)</u>
\$1,280.00	\$170.00

17. Rates and Charges (Cont'd)

17.6 Other Services

17.6.1 Additional Engineering

Regulations concerning Additional Engineering are set forth in Section 13.1 preceding.

<u>Additional Engineering Periods</u>	<u>Each Half Hour or Fraction Thereof</u>	<u>Section Reference</u>
(A) <u>Basic Time</u> Regularly scheduled working hours, Per Engineer	\$42.69	13.1
(B) <u>Overtime</u> Outside of regularly scheduled working hours on a scheduled work day, Per Engineer	\$64.04	13.1
(C) <u>Premium Time</u> Outside of scheduled work day, Per Engineer	\$85.38	13.1

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services (Cont'd)

17.6.2 Additional Labor

Regulations concerning Additional Labor are set forth in Section 13.2 preceding.

<u>Additional Labor Periods</u>	<u>Each Half Hour or Fraction Thereof</u>	<u>Section Reference</u>
(A) <u>Installation or Repair</u>		
<u>Overtime</u>		
Outside of regularly scheduled working		
<u>Overtime</u>		
hours on a scheduled work day, Per Technician	\$48.71	13.2
<u>Premium Time</u>		
Outside of scheduled work day, Per Technician	\$64.95*	13.2
(B) <u>Standby</u>		
<u>Basic Time</u>		
Regularly scheduled working hours,		
Per Technician	\$32.47	13.2
<u>Overtime</u>		
Outside of regularly scheduled working hours		
on a scheduled work day, Per Technician	\$48.71*	13.2
<u>Premium Time</u>		
Outside of scheduled work day, Per Technician	\$64.95*	13.2
(C) <u>Testing and Maintenance with other Companies or Other Labor</u>		
<u>Basic Time</u>		
Regularly scheduled working hours,		
Per Technician	\$32.47	13.2
<u>Overtime</u>		
Outside of regularly scheduled working		
hours on a scheduled work day,		
Per Technician	\$48.71*	13.2
<u>Premium Time</u>		
Outside of scheduled work day,		
Per Technician	\$84.95*	13.2

* A call out of a Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services (Cont'd)

17.6.3 Miscellaneous Services

Regulations concerning Miscellaneous Services are set forth in Section 13.3 preceding.

(A)-(C) Reserved For Future Use

(D) Additional Cooperative Acceptance Testing - Special Access
See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(E) Additional Manual Testing - Special Access
See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(F) Maintenance of Service
See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(G)-(K) Reserved For Future Use

(L) <u>Billing Name and Address Service</u>	<u>Nonrecurring Charge</u>	<u>Section Reference</u>
Per BNA Order	\$23.60	13.8.4(A)
Per BNA Record	\$0.05	13.8.4(A)
Optional Format Programming Charge Per each half hour, or fraction thereof		
		13.8.4(C)

(M)-(P) Reserved For Future Use

(Q) Provision of Access Service Billing Information

- Additional copies of the customer's monthly bill
- per copy per Billing Account Number in paper format

<u>Monthly Rate</u>	<u>Non-Recurring Charge</u>	<u>Tariff Reference</u>
\$60.00	\$60.00	13.3.5

* A call out of a Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

** 1004 Hz Loss, C-Message Noise and Balance are non-chargeable routine tests, however, they may be requested on an as needed or more than routine scheduled basis, in which case the charges herein apply.

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17. Rates and Charges17.6 Other Services (Cont'd)17.6.4 - 17.6.6 Reserved for Future Use17.6.7 Public Packet Data Network17.6.7.1 Frame Relay Access Service

Effective June 1, 2015, Frame Relay Access Service will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their Frame Relay Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their Frame Relay Service covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

ACCESS SERVICE

17. Rates and Charges17.6 Other Services17.6.7 Public Packet Data Network17.6.7.1 Frame Relay Access Service (Cont'd)

Regulations concerning Frame Relay Access Service are set forth in 16.1 preceding.

<u>Connections</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(A) <u>Frame Relay Access Connection (FRAC)</u> (per FRAC)		
1.544 Mbps	\$199.80	\$251.00
44.736 Mbps	N/A	N/A
(B) <u>Frame Relay Inter-network Connection (FRIC)</u> (per FRIC)		
1.544 Mbps	\$199.80	\$251.00
44.736 Mbps	N/A	N/A
(C) <u>End User Port</u> (per port)		
1.544 Mbps	\$133.10	
44.736 Mbps	\$930.60	
(D) <u>Inter-network Customer Port</u> (per port)		
1.544 Mbps	\$133.10	
44.736 Mbps	\$930.60	
(E) <u>Term Discounts</u>	<u>Percentage</u>	
36 months	10%	
60 months	20%	

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.7 Public Packet Data Network

17.6.7.1 Frame Relay Access Service (Cont'd)

(F) Permanent Virtual Connections (PVCs)

(1) Standard

(2) Extended

<u>CIR</u>	<u>Monthly Rate</u>	<u>CIR</u>	<u>Monthly Rate</u>
769 - 1152 Kbps	\$ 31.02	769 - 1152 Kbps	\$ 75.25
1153 - 1536 Kbps	\$ 40.82	1153 - 1536 Kbps	\$ 94.05
1537 - 4000 Kbps	\$ 97.96	1537 - 4000 Kbps	\$ 235.05
4001 - 10000 Kbps	\$204.08	4001 - 10000 Kbps	\$ 564.05
10001 - 15000 Kbps	\$269.38	10001 - 15000 Kbps	\$ 802.00
15001 - 20000 Kbps	\$334.68	15001 - 20000 Kbps	\$1,007.65
20001 - 25000 Kbps	\$399.99	20001 - 25000 Kbps	\$1,183.90
25001 - 30000 Kbps	\$465.29	25001 - 30000 Kbps	\$1,327.85
30001 - 35000 Kbps	\$530.60	30001 - 35000 Kbps	\$1,442.45
35001 - 40000 Kbps	\$595.90	35001 - 40000 Kbps	\$1,527.60
40001 - 45000 Kbps	\$653.04	40001 - 45000 Kbps	\$1,577.55

Nonrecurring Charge

(G) PVC Installation Charge

\$50.00

(H) PVC Rearrangement Charge

\$25.00

ACCESS SERVICE

17. Rates and Charges17.6 Other Services17.6.7 Public Packet Data Network (Cont'd)17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service

Regulations concerning Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) are set forth in Section 16.2, preceding.

Effective June 1, 2015, ATM-CRS will no longer be available to new customers for new orders nor will new orders from existing customers be accepted (except to the extent permitted by term discount plan/contract).

Existing customers of this service will be grandfathered as follows:

- As of June 1, 2015, month-to-month customers will no longer be able to purchase this service.
- Existing term discount plans/contracts for this service will not be renewed.
- Customers with a term discount plan/contract that expires between February 24, 2015 and June 1, 2015 may retain their ATM-CRS Service on a month-to-month basis until June 1, 2015.
- Customers with a term discount plan/contract that expires after June 1, 2015 may retain their ATM-CRS covered by that term discount plan/contract until the expiration of that term discount plan/contract. If a customer is currently under a term discount plan/contract and wishes to move to another service, cancellation charges will not apply.

(1) Ports

(a) Per Basic UNI or NNI Port

<u>Port Speed</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
1.544 Mbps	\$ 211.55	\$ 500.00
44.736 Mbps	\$1,175.10	\$ 750.00
155.52 Mbps	\$1,821.40	\$1,200.00
622.08 Mbps	\$2,643.90	\$1,500.00

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17. Rates and Charges

17.6 Other Services

17.6.7 Public Packet Data Network (Cont'd)

17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service

(2) Virtual Paths

(a) Path charge, per Path

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$2.95	\$70.00

(b) Capacity charge, per Megabit of capacity, per path

Traffic Route Prioritization Parameter

<u>Path Size</u>	<u>CBR</u>	<u>VBR-rt</u>	<u>VBR-nrt</u>	<u>UBR</u>
1 to 50 Mbps	\$14.75	\$11.80	\$8.85	\$7.35
51 to 150 Mbps	\$22.50	\$17.50	\$12.50	\$10.00
Over 150 Mbps	\$17.50	\$12.50	\$10.00	\$7.50

(3) Virtual Circuit Channels

Per Virtual Circuit Channel

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$0.95	\$70.00

ACCESS SERVICE

17. Rates and Charges17.6 Other Services17.6.7 Public Packet Data Network17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service (Cont'd)(4) Optional Features and Functions(a) DSL Access Service Connection(i) Per Basic UNI or NNI Port Equipped

<u>Port Speed</u>	<u>Nonrecurring Charge</u>
1.544 Mbps	\$ 170.00
44.736 Mbps	\$ 555.00
155.52 Mbps	\$1,145.00
622.08 Mbps	\$1,300.00

(ii) Reserved for Future Use(iii) Per 1.544 Mbps DSL VCC

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$24.50	\$70.00

(iv) Per MM-VCC

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
Per 1 Megabit <u>Increment</u>	\$5.00
\$1.55	
Per 4 Megabit <u>increment</u>	
\$3.00	

17.6.8 Reserved For Future Use

ACCESS SERVICE

17. Rates and Charges17.6 Other Services (Cont'd)17.6.9 Synchronous Optical Channel Service ⁽¹⁾

Regulations concerning Synchronous Optical Channel Service are set forth in 7.2.1 preceding.

	<u>Monthly</u>	<u>3 Year (36 Month)</u> ⁽¹⁾	<u>5 Year (60 Month)</u> ⁽¹⁾
(A) <u>Channel Termination, Per Termination</u>			
OC3/OC3c	\$ 992.94	\$ 687.45	\$ 611.05
OC12/OC12c	\$1,909.51	\$1,321.95	\$1,175.10
OC48/OC48c	\$3,819.01	\$2,643.90	\$2,350.15
OC192	\$7,637.50	\$5,285.00	\$4,700.00

Channel Termination nonrecurring charge per termination is \$786.00.

	<u>Monthly</u>	<u>3 Year (36 Month)</u> ⁽¹⁾	<u>5 Year (60 Month)</u> ⁽¹⁾
(B) <u>Channel Mileage Facility Per Mile</u>			
OC3/OC3c	\$ 76.44	\$ 52.90	\$ 47.05
OC12/OC12c	\$152.82	\$105.80	\$ 94.05
OC48/OC48c	\$229.19	\$158.65	\$ 141.05
OC192	\$344.50	\$240.00	\$ 210.00

(C) <u>Channel Mileage Termination, per Termination</u>			
OC3/OC3c	\$ 152.82	\$ 105.80	\$ 94.05
OC12/OC12c	\$ 763.82	\$ 528.80	\$ 470.05
OC48/OC48c	\$1,527.63	\$1,057.60	\$ 940.05
OC192	\$6,116.50	\$4,235.00	\$3,765.00

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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17. Rates and Charges17.6 Other Services17.6.9 Synchronous Optical Channel Service ⁽¹⁾ (Cont'd)(D) Optional Features and Functions

	<u>Monthly</u>	<u>3 Year (36 Month)</u> ⁽¹⁾	<u>5 Year (60 Month)</u> ⁽¹⁾
(1) <u>Customer Node</u> <u>Per Node</u>			
OC3/OC3c	\$ 381.94	\$ 264.40	\$ 235.05
OC12/OC12c	\$ 1,374.88	\$ 951.85	\$ 846.05
OC48/OC48c	\$ 4,582.76	\$ 3,172.70	\$2,820.20
OC192	\$15,275.00	\$10,575.00	\$9,400.00

Customer Node nonrecurring charge per node is \$786.00.

	<u>Monthly</u>	<u>3 Year (36 Month)</u> ⁽¹⁾	<u>5 Year (60 Month)</u> ⁽¹⁾
(2) <u>Customer Premises</u> <u>Port Per Port</u>			
DS1	\$ 34.19	\$ 23.70	\$ 21.00
STS-1	\$ 57.33	\$ 39.70	\$ 35.30
DS3	\$ 57.33	\$ 39.70	\$ 35.30
OC3/OC3c	\$ 190.97	\$ 132.25	\$ 117.55
OC12/OC12c	\$ 611.07	\$ 423.05	\$ 376.05
OC48/OC48c	\$1,955.20	\$1,354.00	\$1,203.00
OC192	\$6,255.60	\$4,331.00	\$3,850.00
10 Mbps	\$ 44.10	\$ 39.70	\$ 35.30
20 Mbps	\$ 48.50	\$ 43.70	\$ 38.80
50 Mbps	\$ 88.20	\$ 79.40	\$ 70.60
100 Mbps	\$ 97.00	\$ 87.30	\$ 77.70
150 Mbps	\$ 146.90	\$ 132.25	\$ 117.55
300 Mbps	\$ 293.80	\$ 264.50	\$ 235.10
450 Mbps	\$ 470.05	\$ 423.05	\$ 376.05
600 Mbps	\$ 517.10	\$ 465.40	\$ 413.70
1 Gbps	\$ 940.10	\$ 846.10	\$ 752.10

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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17. Rates and Charges17.6 Other Services17.6.9 Synchronous Optical Channel Service ⁽¹⁾(D) Optional Features and Functions (Cont'd)

	<u>Monthly</u>	<u>3 Year ⁽¹⁾ (36 Month)</u>	<u>5 Year⁽¹⁾ (60 Month)</u>
(3) <u>Add/Drop Multiplexing Central Office Port, Per Port</u>			
DS1 (1.544 Mbps)	\$ 22.95	\$ 17.65	\$ 17.65
DS3 (44.73 Mbps)	\$ 38.22	\$ 29.40	\$ 29.40
OC3/OC3c (155.52 Mbps)	\$114.60	\$ 88.15	\$ 88.15
OC12/OC12c (622.08 Mbps)	\$534.69	\$ 411.30	\$ 411.30
OC48/OC48c (2.5 Gbps)	\$1,566.50	\$1,205.00	\$1,205.00
OC192 (10 Gbps)	\$4,589.00	\$3,530.00	\$3,530.00
10 Mbps	\$ 35.30	\$ 35.30	\$ 35.30
20 Mbps	\$ 38.85	\$ 38.85	\$ 38.85
50 Mbps	\$ 64.70	\$ 64.70	\$ 64.70
100 Mbps	\$ 71.20	\$ 71.20	\$ 71.20
150 Mbps	\$ 88.15	\$ 88.15	\$ 88.15
300 Mbps	\$ 176.30	\$ 176.30	\$ 176.30
450 Mbps	\$ 411.30	\$ 411.30	\$ 411.30
600 Mbps	\$ 452.45	\$ 452.45	\$ 452.45
1 Gbps	\$ 822.60	\$ 822.60	\$ 822.60

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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17. Rates and Charges17.6 Other Services17.6.9 Synchronous Optical Channel Service ⁽¹⁾(D) Optional Features and Functions (Cont'd)

	<u>Monthly</u>	<u>3 Year⁽¹⁾ (36 Month)</u>	<u>5 Year⁽¹⁾ (60 Month)</u>
(4) <u>Reserved For Future Use</u>			
(5) <u>DSL Access Service Connection</u> OC3/OC3c	\$1,731.02	\$1,331.55	\$1,331.55
(6) <u>SONET Regeneration</u>			
OC3	\$2,470.00	\$1,500.00	\$1,300.00
OC12	\$4,225.00	\$2,600.00	\$2,300.00
OC48	\$6,240.00	\$4,600.00	\$4,400.00
OC192	\$9,425.00	\$6,875.00	\$6,250.00
(7) <u>Service Reconfiguration</u>			
Per STS1/DS3 equivalent			Nonrecurring <u>Charge</u>
			\$625.00

[1] Effective March 1, 2022 the Synchronous Optical Channel Service Optional Rate Plan will be grandfathered until the expiration date of the current term. As of this effective date, term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month. SONET OC-192 Point-to-Point configurations are grandfathered as of February 11, 2019 and will no longer be available for new service requests. This does not impact SONET OC-192 Multipoint or Ring configurations.

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17. Rates and Charges

17.6 Other Services (Cont'd)

17.6.10 Reserved For Future Use

17.6.11 Reserved For Future Use

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17. Rates and Charges17.6 Other Services (Cont'd)17.6.12 SONET OC Ring ^[1](A) Customer Node(1) OC3 – with Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$2,535.00	\$2,437.50	\$1,755.00	\$1,560.00	\$3,400.00

(2) OC12 – with Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$3,542.50	\$3,406.0	\$2,452.50	\$2,180.00	\$5,100.00

* The nonrecurring installation charge applies to Month-to-Month and 1 Year monthly recurring rates only.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1] (Cont'd)(A) Customer Node(3) OC48 – with Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$8,352.50	\$8,021.00	\$5,782.50	\$5,140.00	\$10,700.00

(4) OC192 – with Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$16,445.00	\$15,788.50	\$11,385.00	\$10,120.00	\$20,050.00

* The nonrecurring installation charge applies to Month-to-Month and 1 Year monthly recurring rates only.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1](A) Customer Node (Cont'd)(5) OC3 – without Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$227.50	\$221.00	\$157.50	\$140.00

(6) OC12 – without Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$331.50	\$318.50	\$229.50	\$204.00

(7) OC48 – without Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$435.50	\$422.50	\$301.50	\$268.00

(8) OC192 – without Company Provided Terminal Equipment

- Per Node

<u>Monthly Rates</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$546.00	\$526.50	\$378.00	\$336.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(B) Customer Configuration Interface

(1) OC3

(a) Month-to-Month Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$39.00	\$110.50	\$123.50	\$340.00

<u>Monthly Rates</u>		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$900.00	\$1,025.00	\$1,060.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(1) OC3 (Cont'd)

(b) 1 Year Commitment Rates

Monthly Rates			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$39.00	\$110.50	\$123.50	\$330.00

Monthly Rates		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$865.00	\$985.00	\$1,020.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(1) OC3 (Cont'd)

(c) 3 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$27.00	\$76.50	\$85.50	\$306.00

<u>Monthly Rates</u>		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$810.00	\$922.50	\$954.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(1) OC3 (Cont'd)

(d) 5 Year Commitment Rates

Monthly Rates			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$24.00	\$68.00	\$76.00	\$272.00

Monthly Rates		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$720.00	\$820.00	\$848.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface (Cont'd)

(2) OC12

(a) Month-to-Month Commitment Rates

Monthly Rates			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$39.00	\$117.00	\$273.00	\$390.00
Monthly Rates			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$123.50	\$340.00	\$900.00	\$1,025.00
Monthly Rates			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$1,060.00	\$1,135.00	\$1,275.00	\$1,500.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(2) OC12 (Cont'd)

(b) 1 Year Commitment Rates

Monthly Rates			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$39.00	\$117.00	\$266.50	\$377.00
Monthly Rates			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$123.50	\$330.00	\$865.00	\$985.00
Monthly Rates			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$1,020.00	\$1,090.00	\$1,225.00	\$1,440.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(2) OC12 (Cont'd)

(c) 3 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$27.00	\$81.00	\$189.00	\$270.00

<u>Monthly Rates</u>			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$85.50	\$306.00	\$810.00	\$922.50

<u>Monthly Rates</u>			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$954.00	\$1,021.50	\$1,147.50	\$1,350.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(2) OC12 (Cont'd)

(d) 5 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$24.00	\$72.00	\$168.00	\$240.00

<u>Monthly Rates</u>			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$76.00	\$272.00	\$720.00	\$820.00

<u>Monthly Rates</u>			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$848.00	\$908.00	\$1,020.00	\$1,200.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface (Cont'd)

(3) OC48

(a) Month-to-Month Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$188.50	\$533.00	\$799.50	\$624.00
<u>Monthly Rates</u>			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$910.00	\$221.00	\$340.00	\$900.00
<u>Monthly Rates</u>			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$1,025.00	\$1,060.00	\$1,135.00	\$1,275.00
<u>Monthly Rates</u>			
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>	
\$1,500.00	\$1,525.00	\$2,160.00	

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring^[1]

(B) Customer Configuration Interface

(3) OC48 (Cont'd)

(b) 1 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$182.00	\$513.50	\$773.50	\$604.50
<u>Monthly Rates</u>			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$877.50	\$214.50	\$330.00	\$865.00
<u>Monthly Rates</u>			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$985.00	\$1,020.00	\$1,090.00	\$1,225.00
<u>Monthly Rates</u>			
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>	
\$1,440.00	\$1,465.00	\$2,075.00	

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(3) OC48 (Cont'd)

(c) 3 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$130.50	\$369.00	\$553.50	\$432.00
<u>Monthly Rates</u>			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$630.00	\$153.00	\$306.00	\$810.00
<u>Monthly Rates</u>			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$922.50	\$954.00	\$1,021.50	\$1,147.50
<u>Monthly Rates</u>			
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>	
\$1,350.00	\$1,372.50	\$1,944.00	

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(3) OC48 (Cont'd)

(d) 5 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$116.00	\$328.00	\$492.00	\$384.00
<u>Monthly Rates</u>			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$560.00	\$136.00	\$272.00	\$720.00
<u>Monthly Rates</u>			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$820.00	\$848.00	\$908.00	\$1,020.00
<u>Monthly Rates</u>			
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>	
\$1,200.00	\$1,220.00	\$1,728.00	

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1](B) Customer Configuration Interface (Cont'd)(4) OC192(a) Month-to-Month Commitment Rates

<u>Monthly Rates</u>				
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>	
\$247.00	\$559.00	\$968.50	\$2,899.00	
<u>Monthly Rates</u>				
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>	
\$624.00	\$1,072.50	\$3,198.00	\$273.00	
<u>Monthly Rates</u>				
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>	
\$340.00	\$900.00	\$1,025.00	\$1,060.00	
<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,135.00	\$1,275.00	\$1,500.00	\$1,525.00	\$2,160.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1](B) Customer Configuration Interface(4) OC192 (Cont'd)(b) 1 Year Commitment Rates

<u>Monthly Rates</u>				
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>	
\$240.50	\$539.50	\$936.00	\$2,788.50	
<u>Monthly Rates</u>				
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>	
\$604.50	\$1,033.50	\$3,061.50	\$266.50	
<u>Monthly Rates</u>				
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>	
\$330.00	\$865.00	\$985.00	\$1,020.00	
<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,090.00	\$1,225.00	\$1,440.00	\$1465.00	\$2,075.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1](B) Customer Configuration Interface(4) OC192 (Cont'd)(c) 3 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$171.00	\$387.00	\$670.50	\$2,007.00

<u>Monthly Rates</u>			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$432.00	\$742.50	\$2,205.00	\$189.00

<u>Monthly Rates</u>			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$306.00	\$810.00	\$922.50	\$954.00

<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,021.50	\$1,147.50	\$1,350.00	\$1,372.50	\$1,944.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(B) Customer Configuration Interface

(4) OC192 (Cont'd)

(d) 5 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$152.00	\$344.00	\$596.00	\$1,784.00

<u>Monthly Rates</u>			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$384.00	\$660.00	\$1,960.00	\$168.00

<u>Monthly Rates</u>			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$272.00	\$720.00	\$820.00	\$848.00

<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$908.00	\$1,020.00	\$1,200.00	\$1,220.00	\$1,728.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(C) Central Office Node

(1) OC3

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$2,405.00	\$2,314.00	\$1,665.00	\$1,480.00	\$3,400.00

(2) OC12

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$3,445.00	\$3,308.50	\$2,385.00	\$2,120.00	\$5,100.00

* The nonrecurring installation charge applies to Month-to-Month and 1 Year monthly recurring rates only.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(C) Central Office Node (Cont'd)

(3) OC48

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$8,157.50	\$7,832.50	\$5,647.50	\$5,020.00	\$10,700.00

(4) OC192

- Per Node

<u>Monthly Rates</u>				<u>Nonrecurring Installation Charge*</u>
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	
\$18,687.50	\$17,940.00	\$12,937.50	\$11,500.00	\$5,100.00

* The nonrecurring installation charge applies to Month-to-Month and 1 Year monthly recurring rates only.

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(D) Central Office Configuration Interface

(1) OC3

(a) Month-to-Month Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$39.00	\$110.50	\$123.50	\$340.00

<u>Monthly Rates</u>		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$900.00	\$1,025.00	\$1,060.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(1) OC3 (Cont'd)

(b) 1 Year Commitment Rates

Monthly Rates			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$39.00	\$110.50	\$123.50	\$330.00

Monthly Rates		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$865.00	\$985.00	\$1,020.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring^[1]

(D) Central Office Configuration Interface

(1) OC3 (Cont'd)

(c) 3 Year Commitment Rates^[1]

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$27.00	\$76.50	\$85.50	\$306.00

<u>Monthly Rates</u>		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$810.00	\$922.50	\$954.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

ACCESS SERVICE

17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(1) OC3 (Cont'd)

(d) 5 Year Commitment Rates ^[1]

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>STSI Level</u>	<u>10M Level</u>
\$24.00	\$68.00	\$76.00	\$272.00

<u>Monthly Rates</u>		
<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$720.00	\$820.00	\$848.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

Effective: October 30, 2022

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1](D) Central Office Configuration Interface (Cont'd)(2) OC12(a) Month-to-Month Commitment RatesMonthly Rates

<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$39.00	\$117.00	\$273.00	\$390.00

Monthly Rates

<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$123.50	\$340.00	\$900.00	\$1,025.00

Monthly Rates

<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$1,060.00	\$1,135.00	\$1,275.00	\$1,500.00

[1] Effective March 1, 2022 SONET OC Ring with terms of 36 or 60 months will be grandfathered until the expiration date of the current term. As of this effective date, 36 and 60 month term renewals will not be offered on this plan. Upon expiration of the current term, rates will revert to month-to-month.

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17. Rates and Charges

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17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(2) OC12 (Cont'd)

(b) 1 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$39.00	\$117.00	\$266.50	\$377.00

<u>Monthly Rates</u>			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$123.50	\$330.00	\$865.00	\$985.00

<u>Monthly Rates</u>			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$1,020.00	\$1,090.00	\$1,225.00	\$1,440.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(2) OC12 (Cont'd)

(c) 3 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$27.00	\$81.00	\$189.00	\$270.00

<u>Monthly Rates</u>			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$85.50	\$306.00	\$810.00	\$922.5

<u>Monthly Rates</u>			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$954.00	\$1,021.50	\$1,147.50	\$1,350.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(2) OC12 (Cont'd)

(d) 5 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS1 Level</u>	<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC3c Level</u>
\$24.00	\$72.00	\$168.00	\$240.00

<u>Monthly Rates</u>			
<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>
\$76.00	\$272.00	\$720.00	\$820.00

<u>Monthly Rates</u>			
<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>
\$848.00	\$908.00	\$1,020.00	\$1,200.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface (Cont'd)

(3) OC48

(a) Month-to-Month Commitment Rates

Monthly Rates			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$188.50	\$533.00	\$799.50	\$624.00

Monthly Rates			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$910.00	\$221.00	\$340.00	\$900.00

Monthly Rates			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$1,025.00	\$1,060.00	\$1,135.00	\$1,275.00

Monthly Rates		
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,500.00	\$1,525.00	\$2,160.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(3) OC48 (Cont'd)

(b) 1 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$182.00	\$513.50	\$773.50	\$604.50

<u>Monthly Rates</u>			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$877.50	\$214.50	\$330.00	\$865.00

<u>Monthly Rates</u>			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$985.00	\$1,020.00	\$1,090.00	\$1,225.00

<u>Monthly Rates</u>		
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,440.00	\$1,465.00	\$2,075.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(3) OC48 (Cont'd)

(c) 3 Year Commitment Rates

Monthly Rates			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$130.50	\$369.00	\$553.50	\$432.00

Monthly Rates			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$630.00	\$153.00	\$306.00	\$810.00

Monthly Rates			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$922.50	\$954.00	\$1,021.50	\$1,147.50

Monthly Rates		
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,350.00	\$1,372.50	\$1,944.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(3) OC48 (Cont'd)

(d) 5 Year Commitment Rates

Monthly Rates			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC3c Level</u>
\$116.00	\$328.00	\$492.00	\$384.00

Monthly Rates			
<u>OC12c Level</u>	<u>STS1 Level</u>	<u>10M Level</u>	<u>20M Level</u>
\$560.00	\$136.00	\$272.00	\$720.00

Monthly Rates			
<u>50M Level</u>	<u>100M Level</u>	<u>150M Level</u>	<u>300M Level</u>
\$820.00	\$848.00	\$908.00	\$1,020.00

Monthly Rates		
<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,200.00	\$1,220.00	\$1,728.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface (Cont'd)

(4) OC192

(a) Month-to-Month Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$247.00	\$559.00	\$968.50	\$2,899.00

<u>Monthly Rates</u>			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$624.00	\$1,072.50	\$3,198.00	\$273.00

<u>Monthly Rates</u>			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$340.00	\$900.00	\$1,025.00	\$1,060.00

<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,135.00	\$1,275.00	\$1,500.00	\$1,525.00	\$2,160.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(4) OC192 (Cont'd)

(b) 1 Year Commitment Rates

<u>Monthly Rates</u>			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$240.50	\$539.50	\$936.00	\$2,788.50

<u>Monthly Rates</u>			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$604.50	\$1,033.50	\$3,061.50	\$266.50

<u>Monthly Rates</u>			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$330.00	\$865.00	\$985.00	\$1,020.00

<u>Monthly Rates</u>				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,090.00	\$1,225.00	\$1,440.00	\$1,465.00	\$2,075.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(4) OC192 (Cont'd)

(c) 3 Year Commitment Rates

Monthly Rates			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$171.00	\$387.00	\$670.50	\$2,007.00

Monthly Rates			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$432.00	\$742.50	\$2,205.00	\$189.00

Monthly Rates			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$306.00	\$810.00	\$922.50	\$954.00

Monthly Rates				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$1,021.50	\$1,147.50	\$1,350.00	\$1,372.50	\$1,944.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1]

(D) Central Office Configuration Interface

(4) OC192 (Cont'd)

(d) 5 Year Commitment Rates

Monthly Rates			
<u>DS3 Level</u>	<u>OC3 Level</u>	<u>OC12 Level</u>	<u>OC48 Level</u>
\$152.00	\$344.00	\$596.00	\$1,784.00

Monthly Rates			
<u>OC3c Level</u>	<u>OC12c Level</u>	<u>OC48c Level</u>	<u>STS1 Level</u>
\$384.00	\$660.00	\$1,960.00	\$168.00

Monthly Rates			
<u>10M Level</u>	<u>20M Level</u>	<u>50M Level</u>	<u>100M Level</u>
\$272.00	\$720.00	\$820.00	\$848.00

Monthly Rates				
<u>150M Level</u>	<u>300M Level</u>	<u>450M Level</u>	<u>600M Level</u>	<u>1G Level</u>
\$908.00	\$1,020.00	\$1,200.00	\$1,220.00	\$1,728.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(E) Local Channel

- Per Mile

<u>Monthly Rates</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>
\$429.00	\$416.00	\$297.00	\$264.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(F) Alternate Central Office Channel

- Per Mile

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$442.00	\$429.00	\$306.00	\$272.00

(G) Interoffice Channel

- Per Mile

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$468.00	\$455.00	\$324.00	\$288.00

(H) Internodal Channel

- Per Mile

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$455.00	\$442.00	\$315.00	\$280.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(I) Intraoffice Channel

(1) OC3

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$234.00	\$227.50	\$162.00	\$144.00

(2) OC12

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$234.00	\$227.50	\$162.00	\$144.00

(3) OC48

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$234.00	\$227.50	\$162.00	\$144.00

(4) OC192

Monthly Rates			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$234.00	\$227.50	\$162.00	\$144.00

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17. Rates and Charges17.6 Other Services17.6.12 SONET OC Ring ^[1] (Cont'd)(J) Customer Node Configuration Interface Capacity Reallocation

- Per DS3 Equivalent

Nonrecurring
Charge

\$625.00

(K) Central Office Node Configuration Interface Capacity Reallocation

- Per DS3 Equivalent

Nonrecurring
Charge

\$625.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(L) Regeneration Charge

(1) OC3

<u>Monthly Rates – Per Regeneration</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$2,340.00	\$2,249.00	\$1,620.00	\$1,440.00

(2) OC12

<u>Monthly Rates – Per Regeneration</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$4,420.00	\$4,244.50	\$3,060.00	\$2,720.00

(3) OC48

<u>Monthly Rates – Per Regeneration</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$6,435.00	\$6,181.50	\$4,455.00	\$3,960.00

(4) OC192

<u>Monthly Rates – Per Regeneration</u>			
<u>Monthly</u>	<u>1 Year</u>	<u>3 Year</u> ^[1]	<u>5 Year</u> ^[1]
\$9,295.00	\$8,924.50	\$6,435.00	\$5,720.00

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17. Rates and Charges

17.6 Other Services

17.6.12 SONET OC Ring ^[1] (Cont'd)

(M) Optical Service Charge

- Per Node

Non-Recurring Charges			
<u>OC3</u>	<u>OC12</u>	<u>OC48</u>	<u>OC192</u>
\$7,500.00	\$8,500.00	\$12,500.00	\$17,500.00

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