Regulations, Rates and Charges
applying to the provision of Access Services
for connection to intrastate communications facilities
for customers within the operating territories of

Citizens Telecommunications Company of Minnesota, LLC T

DBA

Frontier Citizens Communications of Minnesota

In the State of

MINNESOTA

as provided herein.

Access Services are provided by means of wire, fiber optics, radio or any other suitable technology or a combination thereof.

This Tariff applies to the Facilities for Intrastate Access of Citizens Telecommunications Company, hereinafter referred to as the Company for the following Minnesota (Lakes) Exchanges:

Alborn	Clearwater	Hardwick	Malmo	Svea
Almelund	Comfrey	Hayfield	Maple Plain	Taylors Falls
Alvarado	Cosmos	Hazel Run	Mayer	Tower
Arco	Cottonwood	Hector	McGrath	Two Harbors
Argyle	Crane Lake	Herman	McGregor	Tyler
Askov	Cromwell	Hollandale	Meadowlands	Wahkon
Atwater	Delano	Hoyt Lakes	Milaca	Wanamingo
Aurora	Delft	International Fall	Mound	Warba
Babbitt	Denham	Isabella	Mountain Lake	Warren
Bear River	Dexter	Isle	New Germany	Watertown
Belgrade	Dodge Center	Jacobson	Nickerson	West Concord
Big Falls	Ellendale	Jasper	Odin	Wheaton
Blooming Prairie	Elrosa	Kabetogama	Onamia	Wright
Boyd	Ely	Kandiyohi	Oslo	Wyoming
Brimson	Embrassass	Kennedy	Palisade	Wyoming
Brookston	Ericksburg	Kabetogama	Palo	
Brownsdale	Finlayson	Kandiyohi	Pease	
Butterfield	Floodwood	Kennedy	Prinsburg	
Byron	Fountain	Kenyon	Panier	
Cannon Falls	Garrison	Kettle	Raymond	
Cherry Grove	Gateway	Kimberly	Scandia-Marine	
Claremont	Ghent	Lake Lillian	St. Bonifacius	
Clarkfield	Greaney	Lindstrom	Stephen	
Clarks Grove	Hallock	Littlefork	Stephen	
Clear Lake	Hanley falls	Lynd	Sturgeon Lake	

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ISSUING CARRIERS

1. All Regulations, Rates, and Charges presented in this tariff are applicable to the following Issuing Carriers. Wire Center locations for these Issuing Carriers are located in Exchange Carrier Association Tariff FCC No. 4

Citizens Telecommunications Company of Minnesota
For the State of: Minnesota

CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

REGISTERED SERVICE MARKS	REGISTERED TRADEMARKS
NONE	NONE

EXPLANATION OF SYMBOLS

(C) - To signify changed regulation
(D) - To signify discontinued rate or regulation
(I) - To signify increase
(M) - To signify matter relocated without change
(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
(Z) - To signify a correction

EXPLANATION OF ABBREVIATIONS

ac	-	Alternating current
AML	-	Actual Measured Loss
ANI	-	Automatic Number Identification
AP	-	Program Audio
ASR	-	Access Service Request
AT&T	-	American Telephone and Telegraph Company
BD	-	Business Day
BHMC	-	Busy Hour Minutes of Capacity
BSA	-	Basic Serving Arrangement
BSE	-	Basic Service Element
CAROT	-	Centralized Automatic Reporting on Trunks
CCS7	-	Common Channel Signaling System 7
CI	-	Changes Interface
CO	-	Central Office
COCTX	-	Central Office Centrex
Cont'd	-	Continued
CPE	-	Customer Provided Equipment
Ctx	-	Centrex
dB	-	decibel
dBrnC	-	Decibel Reference Noise C-Message Weighting
dBrnCO	-	Decibel Reference Noise C-Message Weighted O
dBv	-	Decibel(s) Relative to 1 Volt (Reference)
dBvl	-	Decibel(s) Relating to 1 Volt (Reference)
dc	-	direct current

EXPLANATION OF ABBREVIATIONS (Cont'd)

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	
f	-	frequency	
FIA	-	Facilities for Intrastate Access	(N)
FID	-	Field Identifier	
FCC	-	Federal Communications Commission	
FX	-	Foreign Exchange	
HC	-	High Capacity	
Hz	-	Hertz	
IC	-	Interexchange Carrier	
ICB	-	Individual Case Basis	
ICL	-	Inserted Connection Loss	
KBPS	-	Kilobits per second	
KHZ	-	Kilohertz	
LATA	-	Local Access and Transport Area	
Ma	-	Milliamperes	
Mbps	-	Megabits per second	
MF	-	Multifrequency	
MHz	-	Megahertz	
MMUC	-	Minimum Monthly Usage Charge	
MRC	-	Monthly Recurring Charge	
MT	-	Metallic	
MTS	-	Message Telecommunications Service(s)	
NPA	-	Numbering Plan Area	
NRC	-	Nonrecurring Charge	
NTS	-	Non-Traffic Sensitive	
NXX	-	Three-Digit Central Office Code	
OTPL	-	Zero Transmission Level Point	
PBX	-	Private Branch Exchange	
PCM	-	Pulse Code Modulation	
PLR	-	Private Line Ringdown	
POT	-	Point of Termination	
rms	-	root-mean-square	
RSM	-	Remote Switching Modules	

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EXPLANATION OF ABBREVIATIONS (Cont'd)

RSS	-	Remote Switching Systems
SRL	-	Singing Return Loss
SS7	-	Signaling System 7
SSN	-	Switched Service Network
SWC	-	Serving Wire Center
TES	-	Telephone Exchange Service(s)
TLP	-	Transmission Level Point
TSPS	-	Traffic Service Position System
TV	-	Television
US0C	-	Uniform Service Order Code
VG	-	Voice Grade
V & H	-	Vertical & Horizontal
WA	-	Wideband Analog
WATS	-	Wide Area Telecommunications Service(s)
WD	-	Wideband Data

REFERENCE TO OTHER TARIFFS

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

REFERENCE TO TECHNICAL PUBLICATIONS

The following technical publications are referenced in this tariff and may be obtained from Bell Communications Research, Inc., Distribution Storage Center, 60 New England Avenue, Piscataway, N.J. 08854.

Compatibility Bulletin 106, Issue 2
Issued: December, 1981 Available: March 11, 1982

Technical Reference:

PUB 41451 High Capacity Terrestrial Digital Service
Issued: January, 1983 Available: May 17, 1983

PUB 60101
Issued: December, 1982 Available: January 17, 1983

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

PUB 62310 Digital Data System Channel Interface Specification
Issued: September, 1983 Available: October, 1983

PUB 62411 High Capacity Digital Service Channel Interface Specifications
Issued: September, 1983 Available: October, 1983

TR-NPL-000334 Voice Grade Switched Access Service
Issued: June, 1986 Available: July, 1986

TR-NPL-000335 Voice Grade Special Access Service
Issued: June, 1986 Available: July, 1986

PUB 62501 Addendum Voice Grade Special Access Service
Issued: March, 1984 Available: April, 1984

REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

Technical Reference (Cont'd):

PUB 62502 Narrowband Special Access Service
Issued: December, 1983 Available: January, 1984

PUB 62503 Program Audio Special Access Service
Issued: December, 1983 Available: March 15, 1984

PUB 62503 Addendum Program Audio Special Access Service
Issued: March, 1984 Available: April, 1984

PUB 62504 Television Special Access Service
Issued: December, 1983 Available: March 15, 1984

PUB 62504 Addendum Television Special Access Service
Issued: March, 1984 Available: April, 1984

PUB 62505 Wideband Analog Special Access Service
Issued: December, 1983 Available: January, 1984

PUB 62505 Addendum Wideband Analog Special Access Service
Issued: March, 1984 Available: April, 1984

PUB 62506 Wideband Digital Special Access Service
Issued: December, 1983 Available: January, 1984

PUB 62507 Digital Data Special Access Service
Issued: December, 1983 Available: March 15, 1984

PUB 62508 High Capacity Digital Special Access Service
Issued: December, 1983 Available: January, 1984

Multiple Exchange Carrier Access Billing Guidelines (MECAB)
Issued: November, 1987 Available: November, 1987

Multiple Exchange Carrier Ordering and Design Guidelines (MECOD)
Issued: November, 1985 Available: November, 1985

REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publication is referenced in this tariff 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 (Chapter 6 and 7)
Second Edition, 1980
Issued: June, 1980 Available: June, 1980

The following Technical Publication is referenced in this tariff and may be obtained from the National Exchange Carrier Association, Inc., Director - Tariff and Regulatory Matters, 100 So. Jefferson Road, Whippany, NJ 07981 and the Federal Communications Commission's commercial contractor.

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

The following tariff is referenced in this tariff and may be obtained from the Federal Communications Commission's commercial contractor.

Exchange Carrier Association
Tariff FCC No. 4

1. Application of Tariff

1.1 This tariff contains regulations, rates and charges applicable to the provision of Carrier Common Line, End User Access, Switched Access and other miscellaneous services, hereinafter referred to collectively as service(s), provided by the Issuing Carriers of this tariff, hereinafter referred to as the Telephone Company, to customers.

1.2 The provision of such services by the Telephone Company as set forth in this tariff does not constitute a joint undertaking with the customer for the furnishing of any service.

2. General Regulations

2.1 Undertaking of the Telephone Company

2.1.1 Scope

(A) The Telephone Company does not undertake to transmit messages under this tariff.

(B) The Telephone Company shall be responsible only for the installation, operation and maintenance of the services it provides.

(C) The Telephone Company will, for maintenance purposes, test its services 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 tariff.

(E) The Telephone Company does not warrant that its facilities and services meet standards other than those set forth in this tariff.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.2 Limitations

(A) The customer may not assign or transfer the use of services provided under this tariff; however, 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 acknowledgment of the Telephone Company is required prior to such assignment or transfer which acknowledgment shall be made within 15 days from the receipt of notification. All rates, regulations and conditions contained in this tariff 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 obligation existing at the time of the assignment or transfer.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.2 Limitations (Cont'd)

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

(D) When an end office is scheduled to be converted to an equal access end office, and a shortage of facilities exists, the Telephone Company will allocate available resources to participating ICs as set forth in 5.1.5(A) following.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability

(A) The Telephone Company's liability, if any, for its willful misconduct is not limited by this tariff. 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 (H) following, the Telephone 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 tariff as a Credit Allowance for a Service Interruption.

(B) The Telephone 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 Telephone Company for its own act or omission hold liable any other carrier or customer providing a portion of a service.

(C) The Telephone 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 Telephone Company's negligence.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

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

(1) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from the IC or end user's own communications.

(2) Claims for patent infringement arising from the customer's acts combining or using the service furnished by the Telephone Company in connection with facilities or equipment furnished by the IC or end user or;

(3) All other claims arising out of any act or omission of the IC or end user in the course of using services provided pursuant to this tariff.

(E) The Telephone Company does not guarantee or make any warranty with respect to its services when used in an explosive atmosphere. The Telephone 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 under patents (other than the limited license to use) is granted by the Telephone Company or shall be implied or arise by estoppel, with respect to any service offered under this tariff.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

(G) The Telephone Company will defend the customer against claims of patent infringement arising solely from the use by the customer of services offered under this tariff and will indemnify such customer for any damages awarded based solely on such claims.

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

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.4 Provision of Services

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

2.1.5 Installation and Termination of Services

The services provided under this tariff (A) will include any entrance cable or drop wiring and wire or intrabuilding cable to that point where provision is made for termination of the Telephone Company's outside distribution network facilities at a location at the customer-designated premises and (B) will be installed by the Telephone Company to such Point of Termination. The Telephone Company will work cooperatively with the customer to determine the location of the Point of Termination in accordance with the Telephone Company's standard operating procedures.

Each Access Service has only one Point of Termination per customer premises. Any additional terminations beyond such Point of Termination are the sole responsibility of the customer. Moves of the Point of Termination are handled as set forth in 6.5.4(C) following and Section 7.2.1(D)(3).

2.1.6 Maintenance of Services

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

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.7 Changes, Substitutions and Rearrangements

Except as provided for equipment and systems subject to FCC Part 68 Regulations at 47 C.F.R Section 68.110(b), the Telephone Company may, where such action is reasonably required in the operation of its business;

(A) Substitute, change or rearrange any facilities used in providing service under this tariff, including but not limited to:

(1) substitution of different metallic facilities,
(2) substitution of carrier or derived facilities for metallic facilities used to provide other than metallic facilities, and
(3) substitution of metallic facilities for carrier or derived facilities used to provide other than metallic facilities; and
(4) change in the routing of access service traffic.

(B) Change minimum protection criteria;

(C) Change operating or maintenance characteristics of facilities or,

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.7 Changes, Substitutions and Rearrangements (Cont'd)

(D) Change operations or procedures of the Telephone Company.

In case of any such substitution, change or rearrangement, the transmission parameters will be within the range as set forth in Sections 6, 9 and 7 following. The Telephone 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 Telephone 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 Telephone Company will work cooperatively with the customer to determine reasonable notification procedures.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.8 Refusal and Discontinuance of Service

Unless the provisions of 2.2.1(B) or 2.5 following apply, if a customer fails to comply with the regulations set forth in: 2.1.6; Maintenance of Service, 2.2.2; Unlawful Use, 2.3.1; Damages, 2.3.4; Availability for Testing, 2.3.5; Balance, and 2.4; Payment Arrangements and Credit Allowances, or fails to make any payment to be made by it on the dates and times herein specified, the Telephone Company may, or thirty (30) days written notice by Certified U.S. Mail to the person designated by that customer to receive such notices or noncompliance:

(a) Refuse additional applications for service and/or refuse to complete any pending orders for service by the noncomplying customer; and/or

(b) Discontinue the provision of the services to the noncomplying customer. In the case of such discontinuance, all applicable charges including termination charges shall become due.

If the Telephone Company does not refuse additional applications for service on the date specified in the thirty (30) days notice given pursuant to (a) above, or does not discontinue its provision of services involved on the date specified in the thirty (30) day notice given pursuant to (b) above and the customer's noncompliance continues, nothing contained herein shall preclude the Telephone Company's right to refuse additional applications for service to the noncomplying customer without further notice.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.9 Limitation of Use of Metallic Facilities

Signals applied to a metallic facility shall conform to the limitations set forth in Technical Reference Publication AS No. 1. In the case of applications of dc telegraph signaling systems, the customer shall be responsible, at its expense, for the provision of current limiting devices to protect the Telephone Company facilities from excessive current due to abnormal conditions and for the provision of noise mitigation networks when required to reduce excessive noise.

2.1.10 Notification of Service-Affecting Activities

The Telephone Company will provide the customer reasonable notification of service-affecting activities that may occur in normal operation of its business. Such activities may include, but are not limited to, 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, they affect many customer services. No specific advance notification period is applicable to all service-affecting activities. The Telephone Company will work cooperatively with the customer to determine the notification requirements.

2.1.11 Coordination with Respect to Network Contingencies

The Telephone 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.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.12 Provision and Ownership of Telephone Numbers

The Telephone Company reserves the reasonable right to assign, designate or change telephone numbers, any other call number designations associated with Access Services, or the Telephone 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 Telephone Company will furnish to the customer 6 months notice, by Certified U.S. Mail, of the effective date and an explanation of the reason(s) for such change(s).

2. General Regulations (Cont'd)

2.2 Use

2.2.1 Interference or Impairment

(A) The characteristics and methods of operation of any circuits, facilities or equipment provided by other than the Telephone Company and associated with the facilities utilized to provide services under this tariff shall not interfere with or impair service over any facilities of the Telephone 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.

(B) Except as provided for equipment or systems subject to the FCC Part 68 Rules in 47 C.F.R Section 68.108, if such characteristics or methods of operation are not in accordance with (A) preceding, the Telephone 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, nothing contained herein shall be deemed to preclude the Telephone Company's right to temporarily discontinue forthwith the use of a service if such action is reasonable under the circumstances. In case of such temporary discontinuance, the customer will be promptly notified 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.

2.2.2 Unlawful Use

The service provided under this tariff shall not be used for an unlawful purpose.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer

2.3.1 Damages

The customer shall reimburse the Telephone Company for damages to Telephone Company facilities utilized to provide services under this tariff caused by the negligence or willful act of the customer, or resulting from the customer's improper use of the Telephone Company facilities, or due to malfunction of any facilities or equipment provided by other than the Telephone Company. Nothing in the foregoing provision shall be interpreted to hold one customer liable for another customer's actions. The Telephone 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 Telephone Company for the damages to the extent of such payment.

2.3.2 Ownership of Facilities and Theft

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

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.3 Equipment Space and Power

The customer shall furnish or arrange to have furnished to the Telephone Company, at no charge, equipment space and electrical power required by the Telephone Company to provide services under this tariff 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 Telephone Company. The customer shall also make necessary arrangements in order that the Telephone Company will have access to such spaces at reasonable times for installing, testing, repairing or removing Telephone Company services.

2.3.4 Availability for Testing

The services provided under this tariff shall be available to the Telephone Company at times mutually agreed upon in order to permit the Telephone 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. No credit will be allowed for any interruptions involved during such tests and adjustments.

2.3.5 Balance

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

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.6 Design of Customer Services

Subject to the provisions of 2.1.7 preceding, 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 Telephone Company, minimum protection criteria or operating or maintenance characteristics of the facilities.

2.3.7 References to the Telephone Company

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

2.3.8 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 Telephone Company from and against all claims arising out of the combining with, or use in connection with, the services provided under this tariff, any circuit, apparatus, system or method provided by the customer.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.8 Claims and Demands for Damages (Cont'd)

(B) The customer shall defend, indemnify and save harmless the Telephone Company from and against any suits, claims, losses or 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 Telephone Company's services provided under this tariff, including, without limitation, Workmen'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 this tariff; 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 tortuous conduct of the customer, its officers, agents or employees.

(C) The customer shall defend, indemnify and save harmless the Telephone 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 or omission of the customer in the course of using services provided under this tariff.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.9 Coordination with Respect to Network Contingencies

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

2.3.10 Sectionalization and Trouble Reporting

The customer will be responsible for reporting troubles sectionalized to Telephone Company facilities and/or equipment. When trouble cannot be clearly sectionalized to the Telephone Company facilities and/or equipment, the Telephone Company will test cooperatively or independently to assist in trouble sectionalization.

2.3.11 Identification and Rating of VoIP-PSTN Traffic* (N)

(A) Scope

(1) VoIP-PSTN Traffic is defined as traffic exchanged between the Telephone Company end user and the customer in time division multiplexing ("TDM") format that originates and/or terminates in Internet protocol ("IP") format. This section governs the identification of VoIP-PSTN Traffic that is required to be compensated at interstate access rates by the Federal Communications Commission in its Report and Order in WC Docket Nos. 10-90, etc., FCC Release No. 11-161 (Nov. 18, 2011) ("FCC Order").

*On April 25, 2012 the FCC released its Second Order on Reconsideration of the USF/ICC Transformation Order. Based on this Order, the tariff language in this section will also apply to originating access for VoIP-PSTN for the period of December 29, 2011 through the effective date of the FCC's April 25th Order, which will occur 45 days after publication of the Order in the Federal Register. (N)

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.11 Identification and Rating of VoIP-PSTN Traffic (Cont'd)

(A) Scope (Cont'd)

(1) (Cont'd)

Specifically, this section establishes the method of separating such traffic (referred to in this tariff as "Relevant VoIP-PSTN Traffic") from the customer's traditional intrastate access traffic, so that such Relevant VoIP-PSTN Traffic can be billed in accordance with the FCC Order.

(2) This section will be applied to the billing of switched access charges to a customer that is a local exchange carrier only to the extent that the customer has also implemented billing of interstate access charges for Relevant VoIP-PSTN Traffic in accordance with the FCC Order.

(B) Rating of VoIP-PSTN Traffic

The Relevant VoIP-PSTN Traffic identified in accordance with this tariff section will be billed at rates equal to the Telephone Company's applicable tariffed interstate switched access rates as switched access rates as specified on the company website http://tariffs.citizenscommunications.com/crtf/tariffs then FCC tariffs, then click on Frontier Telephone Companies FCC No. 1 Interstate Access (Rate Group 4). The rates will be found in Section 20.4 (Rates and Charges Group 4). This URL will be tested twice annually to ensure it functions properly (N) (N)

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.11 Identification and Rating of VoIP-PSTN Traffic (Cont'd)

(C) Calculation and Application of Percent-VoIP-Usage Factor

The Telephone Company will determine the number of Relevant VoIP-PSTN Traffic minutes of use ("MOU") to which interstate rates will be applied under subsection (B), above, by applying a Percent VoIP Usage ("PVU") factor to the total terminating intrastate access MOU received by a The Telephone Company from the customer. The PVU will be derived and applied as follows: (T) (T)

(1) The customer will calculate and furnish to the Telephone Company a factor (the "PVU") representing the percentage of the total intrastate and interstate access MOU that the customer terminates to the Telephone Company in the State, that is sent to the Telephone Company and that originated in IP format. This PVU shall be based on information such as traffic studies, actual call detail, or other relevant and verifiable information. (T) (T) (T) (T)

(2) The Telephone Company will apply the PVU factor to the total terminating intrastate access MOU received from the customer to determine the number of Relevant VoIP-PSTN Traffic MOUs. (T) (T)

(3) If the customer does not furnish the Telephone Company with a PVU pursuant to the preceding paragraph 1,the Telephone Company will utilize a PVU equal to zero.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.11 Identification and Rating of VoIP-PSTN Traffic (Cont'd)

(D) Initial PVU Factor

If the PVU factor is not available and/or cannot be implemented in the Telephone Company's billing systems by January 1, 2012, once the factor is available and can be implemented the Telephone Company will adjust the customer's bills to reflect the PVU retroactively to January 1, 2012. This retroactive adjustment will be made to January 1, 2012, provided that the customer provides the factor to the Telephone Company no later than April 15, 2012; otherwise, it will set the initial PVU equal to zero, as specified in subsection (C)(1), above.

(E) PVU Factor Updates

The customer may update the PVU factor quarterly using the method set forth in subsection (C)(1), above. If the customer chooses to submit such updates, it shall forward to the Telephone Company, no later than 15 days after the first day of January, April, July and/or October of each year, a revised PVU factor based on data for the prior three months, ending the last day of December, March, June and September, respectively. The revised PVU factor will apply prospectively and serve as the basis for billing until superseded by a new PVU.

(F) PVU Factor Verification

Not more than four times in any year, the Telephone Company may ask the customer to verify the PVU factor furnished to the Telephone Company. The party so requested shall comply, and shall reasonably provide the records and other information used to determine the PVU factors.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances

2.4.1 Payment of Rates, Charges and Deposits

(A) Deposits

The Telephone Company will, in order to safeguard its interests, only require a customer which has a proven history of late payments to the Telephone 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 to be held by the Telephone Company as a guarantee of the payment of rates and charges. 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 Telephone Company. Such deposit may 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 Telephone 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 Telephone Company, the customer will receive interest at the same percentage rate as set forth in (C)(1) or in (C)(2) following, whichever is lower. The rate will be compounded daily for the number of days from the date the

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)

(A) Deposits (Cont'd)

customer deposit is received by the Telephone Company to and including the date such deposit is credited to the customer's account or the date the deposit is refunded by the Telephone 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.

(B) Payment of Rates and Charges

The Telephone Company shall bill on a current basis all charges incurred by and credits due to the customer under this tariff attributable to services established or discontinued during the preceding billing period. In addition, the Telephone 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 this tariff), the period of service each bill covers and the payment date will be as follows:

(1) For End User Access Service and Presubscription Service, the Telephone Company will establish a bill day each month for each end user account. The bill will cover End User Access Service charges for the ensuing billing period except for End User Access Service for the Federal Government

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)

(B) Payment of Rates and Charges (Cont'd)

(1) (Cont'd)

which will be billed in arrears. Any applicable Presubscription Charges, any known unbilled charges for prior periods and any known unbilled adjustments for prior periods for End User Access Service and Presubscription Service will be applied to this bill. Such bills are due when rendered.

(2) For Switched Access Service, Special Access Service, and Miscellaneous Service charges, the Telephone Company will establish a bill day each month for each customer account. The bill will cover nonusage sensitive service charges for the ensuing billing period for which the bill is rendered, any known unbilled nonusage 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 known unbilled adjustments will be applied to this bill. Payment for such bills is due as set forth in (3) following. If payment is not received by the payment date, as set forth in (3) following in immediately available funds, a late payment penalty will apply as set forth in (C) following.

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)

(B) Payment of Rates and Charges (Cont'd)

(3) All bills dated as set forth in (2) preceding for service, provided to the customer by the Telephone Company are due 31 days (payment date) after the bill date 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 such payment date would cause payment to be due on a Saturday, Sunday or Holiday (i.e., New Year's Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, the first Tuesday in November and the day when Washington's Birthday, Memorial Day or Columbus Day is legally observed), payment for such bills will be due from the customer as follows:

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

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) Late Payment Penalty

If any portion of the payment is received by the Telephone Company after the payment date as set forth in (B)(3) preceding, or if any portion of the payment is received by the Telephone Company in funds which are not immediately available to the Telephone Company, then a late payment penalty shall be due to the Telephone Company in addition to the outstanding amount. The late payment penalty shall be the portion of the payment not received by the payment date times a late factor. The late factor shall be the lessor 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 payment date to and including the date that the customer actually makes the payment to the Telephone Company, or

(2) 0.000590 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 Telephone Company.

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)

(D) Billing Disputes

In the event that a billing dispute occurs concerning any charges billed to the customer by the Telephone Company the following regulations will apply.

(1) The date of the dispute shall be the date on which the customer furnishes the Telephone Company sufficient documentation to investigate the claim. documentation must include, at the minimum, the account number under which the bill has been rendered, the date of the bill, the specific items on the bill being disputed, and, when possible the applicable tariff section if the dispute is predicated on a tariff rate or regulation.

(2) The date of resolution shall be the date on which the Telephone Company completes its investigation of the dispute, notifies the customer of the disposition and applies a credit for the amount of the dispute resolved in the customer's favor or late payment penalty as appropriate. The Telephone Company will work cooperatively with any customer to resolve billing disputes.

(3) If a billing dispute is resolved in favor of the Telephone Company, any payments withheld pending resolution of the dispute shall be subject to the late payment penalty as set forth in (C) preceding.

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)

(D) Billing Disputes (Cont'd)

(4) If a billing dispute is resolved in favor of the customer and the customer pays the total billed amount on or before the payment date, the Telephone Company will refund any over-payment and will apply a credit for a disputed amount penalty as set forth in (a) and (b) following.

(a) If a customer disputes a bill within ninety (90) days of the bill date and pays the total billed amount on or before the payment date, and the billing dispute is resolved in favor of the customer, the customer will receive a credit for a disputed amount penalty from the Telephone Company for the period starting with the payment date and ending on the date of resolution. The credit for a disputed amount penalty shall be an amount equal to the disputed amount resolved in the customer's favor times a penalty factor as set forth in (5) following.

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)

(D) Billing Disputes (Cont'd)

(4) (Cont'd)

(b) If a customer disputes a bill after ninety (90) days from the bill date and pays the total billed amount on or before the payment date and the billing dispute is resolved in favor of the customer, the customer will receive a credit for a disputed amount penalty from the Telephone Company for the period starting with the date of claim and ending on the date of resolution. The credit for a disputed amount penalty shall be an amount equal to the disputed amount resolved in the customer's favor times a penalty factor as set forth in (5) following.

(5) The disputed amount penalty shall be an amount equal to the disputed amount resolved in the customer's favor times a penalty factor. The penalty 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 amount of days from the first date to and including the last date of the period involved, or

(b) 0.000590 per day, compounded daily for the number of days from the first date to and including the last date of the period involved.

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)

(E) Billing Adjustments and Rounding

Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period set forth for services in other sections of this tariff will be prorated to the number of days or major fraction of days based on a 30 day month. When a rate as set forth in this tariff 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).

(F) Provision of Access Service Billing and Bill Verification

(1) The Telephone Company will, upon reasonable request and if available, furnish such detailed information as may be required for verification of any bill.

(2) The customer will receive its monthly bills in a standard paper format, or, at the customer's option, on magnetic tape in standard industry format for these access services for which the Telephone Company is technically capable of providing magnetic tape billing. Additional copies of the customer's bill may be provided in standard paper format at the rates and charges set forth in (3) following. When the customer requests a paper copy of the customer's bill in addition to the customer bill provided on magnetic tape, the rate set forth in (3) following shall apply per page.

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)

		Rate
(3)	Additional copies of the customer's monthly bill or service and features record in standard paper format, per page	$0.07

2. General Regulations (Cont'd)

2.4 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 as otherwise specified.

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 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, the applicable charge will be the lesser of (1) the Telephone Company's total nonrecoverable 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 Section 5.3.2 following.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruption

(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 tariff or in the event that the protective controls applied by the Telephone Company result in the complete loss of service by the customer as set forth in 6.4(A) following. An interruption period starts when an inoperative service is reported to, or discovered by, the Telephone Company designated trouble reporting office and ends when the service is operative. The customer is responsible for sectionalizing trouble to the Telephone Company facilities and/or equipment as set forth in 2.3.10 to preceding.

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 calculated as set forth in (B) and (C) following. Interruptions for which no credit allowance applies are set forth in (D) following.

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

For purposes of this section of the tariff, "major fraction" is defined as that time period representing one-half or more of the incremental time period used to apply the credit allowance for those specific services listed in (B) following.

Service interruptions for Specialized Service or Arrangements provided under the provisions of 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.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruption (Cont'd)

(B) Special Access Services

(1) For Special Access Services other than Program Audio and Video Services, 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) For two point services, the monthly charge subject to credit shall be the total of all the monthly rate element charges associated with the service (i.e., two circuit terminations, circuit mileage and optional features and functions).

(b) For multipoint services, the monthly charge subject to credit to 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 circuit termination per customer premises, circuit mileage and optional features and functions).

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruption (Cont'd)

(B) Special Access Services (Cont'd)

(1) (Cont'd)

(c) For multiplexed services, the monthly charge subject to credit 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 (i.e., the circuit termination, circuit mileage and optional features and functions, including the multiplexer on the facility to the hub, and the circuit terminations, circuit mileages and optional features and functions on the individual services from the hub). When the service which rides a circuit 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 to a customer premises (i.e., circuit termination, circuit mileage and optional features and functions).

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(B) Special Access Services (Cont'd)

(2) For Program Audio and Video 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 major 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 major 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 circuit termination, circuit mileage and optional features and functions that is inoperative for each period of 5 minutes or major fraction thereof that the interruption continues.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(B) Special Access Services (Cont'd)

(2) (Cont'd)

(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 each circuit termination, circuit mileage and optional features and functions that is inoperative for each period of 5 minutes or major 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) For certain Special Access services (Wideband Digital, WD1-3; Digital Data Access, DA1-4; and High Capacity, HC1), any period during which the error performance is below that specified for the service will be considered as an interruption.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(C) Switched Access Service

For Switched Access Service, no credit shall be allowed for an interruption of less than 24 hours. The customer shall be credited for an interruption of 24 hours or more at the rate of 1/30 of any applicable monthly rate, assumed usage, or minimum monthly usage charge for each period of 24 hours or major fraction thereof that the interruption continues.

(D) 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 service during any period in which the Telephone Company is not afforded access to the premises where the service is terminated.

(4) Interruptions of service when the customer has released that service to the Telephone Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer prior to the release of that service. Thereafter, a credit allowance as set forth in (B) preceding applies.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(D) When a Credit Allowance Does Not Apply (Cont'd)

(5) Interruptions of a service which continue because of the failure of the customer to authorize replacement of any element of special construction, as set forth in CONTEL TARIFF FCC NO. 2 for SPECIAL CONSTRUCTION. The period for which no credit allowance is made begins on the seventh day after the customer receives the Telephone Company's written notification of the need for such replacement and ends on the day after receipt by the Telephone Company of the customer's written authorization for such replacement.

(6) Periods when the customer elects not to release the service of 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, for amounts less than one dollar.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(E) Use of an Alternative Service Provided by the Telephone Company

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

(F) Temporary Surrender of a Service

In certain instances, the customer may be requested by the Telephone 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. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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 Telephone 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. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.6 Title or Ownership Rights

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

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided by More Than One Telephone Company

The Telephone Company will perform the rating and billing of Access Services under this tariff where more than one Telephone Company is involved in the provision of Access Service as in (A), (B) or (C) following. The Single Company Billing arrangement in (A) following will be used for FGA and BSA-A Switched Access Services except where interconnection arrangements between the telephone companies involved permit the use of the Multiple company Billing arrangement in (B) following. The Telephone Company will notify the customer of the billing arrangement when the customer orders FGA or BSA-A service. The Multiple Company Billing arrangement, as in (B) following will be used for all FGB, FGC, FGD, BSA-B, BSA-C, 800/888/877 Access and 900 Access Switched Access Services and Special Access Services.

(A) Single Company Billing

The Telephone Company receiving the order from the customer as specified in 5.2(A) following will arrange to provide the service, determine the applicable charges and bill the customer for the entire service in accordance with its Access Services tariff.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)

(B) Multiple Company Billing

(1) For access services subject to Multiple Company Billing, the customer will be billed according to one of the following methods:

Single Bill - The customer will receive a single bill for all access services provided by multiple Telephone Companies. The single bill will include all rate elements applicable to the access service(s) provided under one billing account.

Multiple Bill - The customer will receive a bill from each Telephone Company providing the access service(s). Multiple bills will include all charges applicable to the individual portion of the access service(s) provided by each Telephone Company.

The choice of billing method shall be determined by the Telephone Companies involved. The Telephone Company will notify the customer which method applies when the customer orders access service and will provide the customer thirty days' notice in the event that the billing method is changed.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)

(B) Multiple Company Billing(Cont'd)

(2) For Switched Access Services, the Telephone Company will determine the applicable charges as follows:

(a) Determine the distance in airline miles using the V&H method set forth in Exchange Carrier Association Tariff FCC No. 4, between the Telephone Company's end office switch and the customer's serving wire center.

(b) The airline distance in miles developed in (a) preceding will be multiplied by the Local Transport Mileage rate times the number of access minutes of use times the billing percentage to determine the appropriate Local Transport Mileage charges. The billing percentage is that portion of local transport to be billed by each company and is mutually agreed upon by the Telephone Companies involved in providing Access Services to the customer. Billing percentages are listed in Exchange Carrier Association Tariff FCC No. 4.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)

(B) Multiple Company Billing(Cont'd)

(2) (Cont'd)

(c) The total Local Transport charges shall be the Local Transport Mileage charge as determined in (b) preceding plus the Local Transport Circuit Connection rate times the number of access minutes of use. The Circuit Connection rate applies only at the Telephone Company end office.

(d) All other appropriate recurring and nonrecurring charges in each Telephone Company's access tariff are applicable.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)

(B) Multiple Company Billing (Cont'd)

(3) For Special Access Services, the Telephone Company will determine the applicable charges as follows:

(a) Determine the distance in airline miles using the V&H method set forth in Exchange Carrier Association Tariff No. 4 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 premise and a Telephone Company hub, or two Telephone Company hubs.

(b) The airline distance in miles developed in (a) preceding will be multiplied by the Circuit Mileage - Per Mile rate element times the billing percentage to determine the appropriate Circuit Mileage-Per Mile charges. The billing percentage is that portion of circuit mileage to be billed by each company and is mutually agreed upon by the Telephone Companies involved in providing Access Services to the customer. Billing percentages are listed in Exchange Carrier Association Tariff FCC No. 4.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)

(B) Multiple Company Billing (Cont'd)

(3) (Cont'd)

(c) The total Circuit Mileage charges shall be the Circuit Mileage Per-Mile charge determined in (b) preceding plus the Circuit Mileage-Fixed charge.

(d) All other appropriate recurring and nonrecurring charges in each Telephone Company's access tariff are applicable.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)

(C) EAS and Access Tandem Arrangements

Where a customer utilizes FGA and/or FGB Switched Access Services to originate or terminate calls within an Extended Area Service (EAS) calling area or access tandem network provided by more than one telephone company, the Telephone Company may apply additional Switched Access Service charges as set forth in (1) and (2) following, provided the following criteria are met:

- the telephone companies involved are not the same Telephone Company and do not provide service under the same Access Service tariff,

- the telephone companies do not have a revenue sharing arrangement where one telephone company bills the total cost of access which includes the other telephone company's cost of access,

- The telephone companies involved do not bill Switched Access charges in accordance with the Multiple Company Billing Arrangement for subtending end offices of an access tandem as set forth in (B) preceding.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)

(C) EAS and Access Tandem Arrangements (Cont'd)

(1) For FGA usage which originates or terminates at a Telephone Company end office within an EAS calling area where the first point of switching (dial tone office) is provided by a different telephone company, the Telephone Company will apply Local Transport Mileage and Circuit Connection rates to originating access minutes, and End Office rates to originating and terminating access minutes as set forth in 6.6 following. The mileage used to determine the Local Transport Mileage charges will be based on the airline distance between the end office where the call originates and the dial tone office where the FGA service is provided. Such Switched Access charges will be in addition to those charges assessed by the telephone company in whose exchange the first point of switching (dial tone office) is located. Such usage will be determined as set forth in (3) following.

(2) For FGB usage which originates or terminates at a Telephone Company end office which subtends an access tandem provided by a different telephone company where the FGB service is provided, the Telephone Company will apply End Office and Local Transport Circuit Connection Rates as set forth in 6.8 following for all originating and terminating access minutes routed via the access tandem. Such usage will be determined as set forth in (3) following.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)

(C) EAS and Access Tandem Arrangements (Cont'd)

(3) FGA or FGB usage originating or terminating at Telephone Company end offices in EAS or access tandem arrangements shall be determined as follows:

(a) Where end office specific usage data are available, such data will be used to determine the charges.

(b) Where end office specific usage data are not available, the total originating and/or terminating usage will be the measured usage or assumed usage at the first point of switching (i.e., dial tone office for FGA or access tandem for FGB). Originating and/or terminating usage will be determined based upon the ratios of the total number of subscriber lines in the Telephone Company exchange to the total number of subscriber lines in the EAS calling area or access tandem network. These ratios will be applied to the total number or originating and/or terminating access minutes to determine the access minutes for the Telephone Company exchange.

(4) The ratio used to calculate the access minutes as set forth in (3) preceding will be determined by the telephone company and provided to the customer upon request.

2. General Regulations (Cont'd)

2.5 Connections

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

2. General Regulations (Cont'd)

2.6 Definitions

Certain terms used herein are defined as follows:

Access Area
The term "Access Area" denotes a specific calling area serviced by one or more Central Offices associated with the various Switched Access Services offered under this tariff. The size and configuration of the Access Area a customer obtains is dependent upon the Feature Group type and the specific characteristics of the Central Office or Access Tandem Network in which the connection is made.

Access Code
The term "Access Code" applies to Switched Access Service. It denotes a uniform seven digit code dialed by an end user to access an Interexchange Carrier's facilities. The seven digit code has the form of 101XXXX or 950-XXXX.

Access Minutes
The term "Access Minutes" denotes that usage of exchange facilities in interstate or foreign service for the purpose of calculating chargeable usage. 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 Telephone 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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Access Tandem
The term "Access Tandem" denotes a Telephone Company switching system that provides a concentration and distribution function for originating and/or terminating traffic between end offices and a customer's premises.

Access Tandem Network
The term "Access Tandem Network" denotes the network of trunk groups that provide a concentration and distribution function for originating and/or terminating Switched Access traffic between a single access tandem and Telephone Company subtending end offices.

Answer Message
The term "Answer Message" denotes an SS7 message sent in the backward direction to indicate that the call has been answered.

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.

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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Basic Service Element
The term "Basic Service Element (BSE)" denotes an unbundled service option available only with Basic Serving Arrangements.

Basic Serving Arrangement
The term "Basic Serving Arrangement (BSA)" denotes a category of Switched Access Service differentiated by technical characteristics, e.g., line side versus trunk side connection at the Telephone Company's first point of switching.

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

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 Telephone Company may vary based on company policy, union contract and location. To determine such hours for an individual company, or company location, contact the issuing officer at the address shown on Title Page 1.

Busy Hour Minutes of Capacity (BHMC)
The term "Busy Hour Minutes of Capacity (BHMC)" denotes the customer specified maximum amount of Switched Access 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 Switched Access Arrangement ordered. This customer furnished BHMC quantity is the input data the Telephone Company uses to determine the number of transmission paths or facility requirements for the Switched Access Arrangement ordered.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Call
The term "Call" denotes a customer attempt for which the complete address code (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).

Central Office
The term "Central Office" denotes a local Telephone Company switching system where Telephone Exchange Service customer station loops are terminated for purposes of interconnection to each other and to trunks.

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.

Centralized Automatic Reporting on Trunks Testing
The term "Centralized Automatic Reporting on Trunks Testing" denotes a type of testing which includes the capacity for measuring operational and transmission parameters.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Circuit(s)
The term "Circuit(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 customer premises 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 narrow band-width 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 weighing, 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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Coin Station
The term "Coin Station" denotes a location where Telephone Company equipment is provided in a public or semipublic place where Telephone Company customers can originate telephone communications and pay the applicable charges by inserting coins into the equipment.

Common Channel Signaling System 7 Network (CCS7)
The term "Common Channel Signaling System 7 Network (CCS7)" denotes a dedicated out-of-band signaling network which utilizes Signaling System 7 (SS7) protocol to provide call handling and data base access services.

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

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 tariff, including both Interexchange Carriers (ICs) and End Users.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Customer Designated Premises

The term "Customer Designated Premises" (CDP) denotes a location specified by the customer for the purpose of terminating services. The Telephone Company must have access to the location to perform installation, testing, and maintenances functions. The customer may or may not have access to the location. CDPs include locations such as customer premises, end user premises, customer repeater stations, customer microwave towers, a Telephone Company's first point of switching, some other point where Telephone Company testing can occur, etc. A CDP may be designated by the customer for Switched Access, Special Access, or both in combination. When a customer orders Special Access to connect to a Telephone Company Switch, that switch is a CDP Where the Special Access Service Terminates. Customer transmission facilities and equipment terminated in Telephone Company central offices under EIS arrangements, are not considered a CDP. However, Telephone Company Special Access Services may be interconnected to such customer equipment using a Cross Connect arrangement.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Data Transmission (107 Type) Test Line
The term "Data Transmissions (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 differences in power, usually between acoustic or electric signals, equal to ten (10) times the common logarithm of the ratio of two signal powers.

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.

Dual Tone Multifrequency Address Signaling

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

2. General Regulations (Cont'd)

2.6 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 Telephone 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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

End Office Switch
The term "End Office Switch" denotes a local Telephone Company switching system where Telephone Exchange Service customer station loops are terminated for purposes of interconnection to each other and to trunks. Included may be Remote Switching Modules and Remote Switching Systems served by a host office in a different wire center.

End User
The term "End User" denotes any customer of interstate or foreign telecommunications service that is not a carrier, except that a carrier shall be deemed to be an "end user" to the extent that such carrier uses a telecommunications service for administrative purposes, without making such service available to others, directly or indirectly.

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 = TLP (send) + TLP (receive)]

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Exchange
The term "Exchange" denotes a unit generally smaller than a local access and transport area, established by the Telephone 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 the area. One or more designated exchanges comprise a given local access and transport area.

Exit Message
The term "Exit Message" denotes an SS7 message sent to an end office by the Telephone Company tandem switch to mark the Connect Time when the Telephone Company's tandem switch sends an Initial Address Message to a 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
The term "Extended Area Service" denotes a telephone exchange service in which a customer in one exchange can call a local number in another exchange that is part of the extended area without paying a toll charge.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Field Identifier
The term "Field Identifier" denotes two to four characters that are used on service orders to convey specific instructions. Field Identifiers may or may not have associated data. Selected Field Identifiers are used in Telephone Company billing systems to generate nonrecurring charges.

First Come - First Served
The term "First Come - First Served" denotes a procedure followed by the Telephone Company to process fully completed Access Orders according to the sequence in which they are received.

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

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 tariff, and which are considered grandfathered under Part 68 of the F.C.C.'s Rules and Regulations.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Host Office
The term "Host Office" denotes an electronic switching system which provides call processing capabilities for one or more Remote Switching Modules or Remote Switching Systems.

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.

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 tariff are developed based on the circumstances in each case.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Initial Address Message (IAM)
The term "Initial Address Message (IAM)" denotes an SS7 message sent in the forward direction to initiate trunk set up with the busying of an outgoing trunk which carries the information about that trunk along with other information relating to the routing and handling of the call to the next switch.

Inserted Connection Loss
The term "Inserted Connection Loss" denotes the 1004 H2 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.

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 communications by wire or radio, between two or more exchanges.

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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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
The term "Local Access and Transport Area" (LATA) denotes a geographic area established by the Telephone Company for the provision and administration of its communications service. It encompasses one or more Telephone Company designated exchanges which are configured in relative proximity to one another and may be reconfigured by the Telephone Company in the normal operation of its business. As used herein, the term LATA refers only to these Telephone Company designated exchanges and does not necessarily have any predetermined association with the term LATA used by other exchange carriers.

Loop Around Test Line
The term "Loop Around Test Line" denotes an arrangement utilizing a Telephone Company central office to provide a means to make certain two-way transmission tests on a manual basis. This arrangement has two central office terminations, each reached by means of separate telephone numbers and does not require any specific customer premises equipment. Equipment subject to this test arrangement is at the discretion of the customer.

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

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 Telephone Company end office.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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.

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 (Numbering Plan Area) code and a seven-digit telephone number made up of a three-digit Central office code plus a four-digit station number.

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 circuit termination of a trunk or line by means of an inductor of several Henries.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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.

Pay Telephone
The term "Pay Telephone" denotes Telephone Company provided instruments and related facilities that are available to the general public for public convenience and necessity, including public and semipublic telephones, and coinless telephones.

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 at a customer-designated premises at which the Telephone 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 and/or Remote Switching Systems
The term "Remote Switching Modules and/or Remote Switching Systems" denotes remotely controlled electronic end office switches which obtain their call processing capability from an ESS-type Host Office. The Remote Switching Modules and/or Remote Switching Systems cannot accommodate direct trunks to an IC.

2. General Regulations (Cont'd)

2.6 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 FCC's Rules and Regulations.

Serving Wire Center
That Telephone Company designated wire center serving the customer's designated premises and used for mileage measurement to determine local transport or circuit mileage charges for Access Service.

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 Telephone Company does not have appropriate cable, switching capacity, bridging or, multiplexing equipment, etc., necessary to provide the Access service requested by the customer.

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.

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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.

Singing Return Loss
The term "Singing 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 singing (instability) problems are most likely to occur.

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.

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.

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.

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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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.

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 to a two-wire entity (e.g., a central office switch).

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Uniform Service Order Code
The term "Uniform Service Order Code" denotes a three or five character alphabetic, numeric, or an alphanumeric code that identifies a specific item of service or equipment. Uniform Service Order Codes are used in the Telephone Company billing system to generate recurring rates and nonrecurring charges.

V&H Coordinates
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 Telephone Company switching office capable of performing the optional screening functions used in Combined Access Service Arrangements.

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

3. Carrier Common Line Access Service

3.1 General

Carrier Common Line Access Service provides for the use of Telephone Company common lines by customers for access to End Users to furnish customer Intrastate telecommunications service.

3.2 Regulations, Rates and Charges

The regulations, rates and charges for Carrier Common Line Access service are the same as those set forth in Section 3 and (C)
Section 20 of the Frontier Telephone Companies Tariff FCC No.1, (C)
with exceptions listed herein.

3.3 Exceptions

The rate for Carrier Common Line Access is:

Premium Access, per minute

-	Terminating	$0.0	
-	Originating – Non 800/888	$.0079774	(C)

Non Premium Access, per minute

-	Terminating	$0.0	
-	Originating – Non 800/888	$.0035898	(C)

4. (Reserved for future use.)

5. Ordering Switched and Special Access Service

This section sets forth the regulations and order related charges for Access Orders for Switched and Special Access Services. These Charges are in addition to other applicable charges as set forth in other sections of this tariff.

5.1 Access Service Request Requirements

An Access Service Request (ASR) is used by the Telephone Company to provide the customer with Switched Access Service as set forth in 6 following, and Special Access Service as set forth in Section 7 following.

When placing an order for Access Services, the customer must complete a Telephone Company Access Service Request and shall provide the information as required in 5.1.1, 5.1.2, and 5.1.3 following.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.1 General

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

A customer may order access service on behalf of the customer's end user. The customer must provide the Telephone Company all the necessary information as set forth in this section.

The customer shall provide all information necessary for the Telephone Company to provide and bill for the requested service. In addition to the order information required in 5.1.2 and 5.1.3 following, 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. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements

Switched Access Service may be ordered by the customer on the basis of line-side or trunk - side access connections at Telephone Company locations. Trunk side ordering regulations are in 5.1.2(A). Line side ordering regulations are in 5.1.2(B).

(A) Trunk Side Access Services

FGB, FGC, FGD, BSA-B, BSA-C, BSA-D, 800, 888, 877 and 900 Access services are provided by the Telephone Company via trunk side connections. Trunk side services may be ordered at the option of the customer, in BHMCs or in trunk quantities. 900 Access Service Trunks are provided only at Telephone Company designated switches capable of performing the customer identification function for 900 service. All 900 NXX code assignments and administration shall be in accordance with the North American Numbering Plan (NANP). 800/888/877 Access Service Trunks are offered only in conjunction with the 800/888/877 customer identification function as described in 6.2.10(A)(1) and in conjunction with 800/888/877 Data Base Query Service as described in 6.2.10(D). Customers may request 800/888/877 access connections to suitably equipped end offices and access tandem offices. A list of those offices will be provided upon request. All 800/888/877 number assignments shall be administered by the Number Administration Service Center (NASC) through the Service Management System (SMS). When direct routing of 800, 888, 877 and 900 Access Service traffic via 800, 888, 877 or 900 Access Service trunks is desired, or when the customer's 800, 888, 877 or 900 Access Service traffic is combined in the same trunk group arrangement with the customer's FGC, FGD, BSA-C or BSA-D traffic, the customer must complete an Access Service Request as in (1) or (2) following.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(A) Trunk Side Access Services (Cont'd)

(1) Trunk Ordering

Customers may order FGB, FGC, FGD, BSA-B, BSA-C, BSA-D, 800, 888, 877 or 900 Access Services by specifying the number of trunks desired between their premises and the end office when direct routing to the end office is desired or the access tandem switch when routing is desired via an access tandem switch and the Local Transport and Local Switching Options desired. When ordering by trunk quantities rather than BHMC quantities to an access tandem, the customer must also provide to the Telephone Company a Traffic Distribution Request specifying an estimate of the amount of traffic it will generate to and/or from each end office subtending the access tandem to assist the Telephone Company in its own efforts to project further facility requirements. The major traffic types and directionality must also be specified to enable efficient provisioning and billing functions.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(A) Trunk Side Access Services (Cont'd)

(1) Trunk Ordering (Cont'd)

There are two major traffic types identified as Originating and Terminating traffic. Because some customers will wish to further segregate their originating traffic into separate trunk groups, originating traffic may be further categorized into Domestic, 800, 888, 877, 900, Operator and IDDD.

When a customer orders FGB, FGC, FGD, BSA-B, BSA-C, BSA-D, 800, 888, 877 or 900 Access Service in trunks, the customer is responsible to assure that sufficient access facilities have been ordered to handle this traffic.

(2) BHMC Ordering

Customers may order FGB, FGC, FGD, BSA-B, BSA-C, BSA-D, 800, 888, 877 or 900 Access Switched Access Service by specifying the number of busy hour minutes of capacity (BHMC) from the customer's premises to the end office by Switched Access arrangement and by type of BHMC. This information is used to determine the number of transmission paths as in 6.5.5. The customer then specifies the Local Transport and Local Switching options desired, and for FGB and BSA-B the manner in which intrastate communications shall be completed.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(A) Trunk Side Access Services (Cont'd)

(2) BHMC Ordering (Cont'd)

The BHMC may be determined by the customer in the following manner. For each day (8 am to 11 pm, Monday through Friday, excluding national holidays), the customer shall determine the highest number of minutes of use for a single hour (e.g., 55 minutes in the 10-11 am hour). The customer shall, for the same hour period (i.e., busy hour) for each of twenty consecutive business days, pick the twenty consecutive business days in a calendar year which add up to the largest number of minutes of use. Both originating and terminating minutes shall be included. The customer shall then determine the average busy hour minutes of capacity (i.e., BHMC) by dividing the largest number of minutes of use figure for the same hour period for the consecutive twenty business day period by 20. This computation shall be performed for each end office the customer wishes to serve. These determinations thus establish the forecasted BHMC for each end office.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(A) Trunk Side Access Services (Cont'd)

(2) BHMC Ordering (Cont'd)

BHMCs are differentiated by type and directionality of traffic carried over a Switched Access Service arrangement. Differentiation of traffic among BHMC types is necessary for the Telephone Company to properly design Switched Access Service to meet the traffic carrying capacity requirement of the customer. There are two major BHMC categories identified as Originating and Terminating. Because some customers will wish to further segregate their originating traffic into separate trunk groups, originating BHMCs are further categorized into Domestic, 800, 888, 877, 900, Operator and IDDD.

(3) 900 NXX Code Activation/Deactivation

900 Access Service NXX Code Activation or Deactivation shall be ordered by the customer for an entire Telephone Company serving area, state within a service area, or LATA associated with a Telephone Company serving area. The customer must specify in its Access Service Request, the 900 NXX codes to be activated or deactivated and the service area desired. The Telephone Company will activate or deactivate the requested NXX codes in all Telephone Company switches which perform the customer identification function for 900 Access Service within the Service area ordered by the customer. Telephone Company serving areas are set forth on Title Page 2 and 2.1.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(A) Trunk Side Access Services (Cont'd)

(3) 900 NXX Code Activation/Deactivation (Cont'd)

When a customer's 900 Access Service traffic originates from a Telephone Company end office which is not capable of performing the customer identification function the customer may be required, upon reasonable notice, to provide the Telephone Company an estimate of the amount of traffic it will generate from the end office to assist the Telephone Company in its own efforts to project future facility requirements.

For additions and/or deletions of 900 Access Service NXX(s) subsequent to the initial order for service, the customer shall place an Access Service Request for such additions and/or deletions at least 30 days prior to the effective date of the change in order to allow the Telephone Company sufficient time to implement the change. Calls originating in Telephone Company jurisdictions to NXXs which the customer has not ordered activated will be blocked in those end offices or access tandems which possess the technical capabilities to block such calls.

(4) When ordering FGD or BSA-D Switched Access with 950-XXXX Access as described in 6.3.2(AB), the customer shall provide an ASR specifying which 950-XXXX access code(s) are to be routed and the FGD or BSA-D Switched Access Service over which the resulting originating 950-XXXX access code calls are to be routed.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.2 Switched Access Ordering Requirements (Cont'd)

(B) Line Side Access Services

FGA and BSA-A Access service is provided by the Telephone Company via line-side connections. All customers shall provide the ordering requirements as follows:

For FGA and BSA-A Switched Access Service, the customer shall specify the number of lines and the first point of switching (i.e., dial tone office), the Local Transport options and Local Switching options desired, and the manner is which intrastate communications shall be completed. In addition, the customer shall also specify which lines are to be arranged in multiline hunt group arrangements and which lines are to be provided as single lines.

When FGA or BSA-A is ordered the customer shall specify whether or not the terminating traffic is to be restricted to the FGA or BSA-A Access Area (local exchange calling area) as in 6.2.1(A)(7) or allowed to extend beyond the FGA or BSA-A Access area but within the LATA. When FGA or BSA-A traffic is terminated beyond the Access Area but remains within the LATA, the rates for Switched Access in 6.5.8, will apply.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.3 Special Access Services

When placing an order for Special Access Services, the customer must provide the requirements as follows:

For all Special Access Services, the customer must specify the customer designated premises or Hubs involved, the type of service, (e.g., Voice Grade, High Capacity, etc.) the channel interface, technical specification package and options desired. For multipoint services, the channel interface at each premises may, at the request of the customer, be different but all such interfaces shall be compatible.

Where the Special Access Service is exempt from the Special Access Surcharge, the customer shall furnish with the Access Service Request the certification as in Section 7.2.1(E) following. Exemption certifications may be provided in writing or by use of an Access Service Request.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.4 Combined Access Service Arrangements

The Combined Access Service Arrangement optional feature, in 6.3.2(T), is ordered by a customer in the provision of that customer's intrastate communications service (e.g., WATS, 800, 888, 877 or WATS-type services) to end users. Orders for the Combined Access Service Arrangement must specify the required information as set forth preceding for the appropriate Switched Access Service Feature Group or BSA and Voice Grade Special Access Service. The customer must also specify the Combined Access Service Arrangement optional features, if any, the directionality of the service to be provided (i.e., originating, terminating, or two-way) and the type of Supervisory Signaling.

If the wire center that serves the customer's end user premises is not capable of providing the necessary functions to combine Switched and Special Access Services as requested by the customer or is not a WATS Serving Office (WSO) the Telephone Company will configure the Special Access portion of the service to the nearest wire center where the necessary functions exist.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.5 Equal Access Conversions

When an office is scheduled to be converted to equal access, the IC must submit an Access Service Request for FGD or BSA-D service no later than 120 days prior to the end office equal access conversion date in order for the IC to participate in the presubscription process as described in 8.5. ICs wishing to participate in pay telephone balloting must specify if the carrier will handle 0+ traffic only, both 0+ and 1+ traffic, or 0+ with 1+ traffic being handled by a secondary service provider. When 1+ coin traffic is handled by a secondary service provider, the participating IC must identify the secondary service provider.

Customers may request existing FGA, FGB, BSA-A or BSA-B services be converted to FGD or BSA-D upon the conversion of an office to equal access. Changes in Feature Group or BSA types are provided in 6.5.4(E).

(A) Feature Group D and BSA-D Facilities Shortages

In the event a shortage of FGD or BSA-D resources exists, the Telephone Company will make every reasonable effort to meet all Access Service Requests as of the equal access conversion date. In the event these efforts are unsuccessful, the Telephone Company will notify all ICs requesting FGD or BSA-D service that a shortage of facilities exist and allocation of available facilities among participating ICs is necessary.

The available resources are determined by the Telephone Company and represent the equipment and facility quantities necessary to provide FGD or BSA-D service, excluding intraLATA FGC or BSA-C and interLATA FGC or BSA-C terminating resources currently in service. If the interLATA FGC or BSA-C trunks are arranged to carry two-way traffic, one half will be considered available resources.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.5 Equal Access Conversions (Cont'd)

(A) Feature Group D and BSA-D Facilities Shortages (Cont'd)

FGD and BSA-D resources are allocated to each IC based on the percent of end users that are presubscribed to that IC as counted 30 days prior to the conversion date. For example, if 10% of end users in an end office scheduled to be converted to equal access are presubscribed to a particular IC, 10% of the total available FGD or BSA-D services will be allocated to that IC.

The quantity of resources in service for each IC as determined by the allocation process will be adjusted on the basis of actual usage and blocking measurements. Actual usage adjustments will be made 90 days after conversion to equal access. If necessary, this reallocation process will continue at three month intervals until all initial service requests have been met.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.6 Provision of Other Services

(A) Testing Service, Additional Labor, Restoration Priority and Special Facilities Routing shall be ordered with an Access Service Request or as set forth in (B) following. The rates and charges for these services, as set forth in other sections of this tariff, will apply in addition to the ordering charges set forth in this section and the rates and charges for the Access Service with which they are associated.

(B) Where possible, the Telephone Company will allow the services listed preceding to be subsequently be added to an Access Service Request at any time, up to and including the service date for the Access Service. When added subsequently, charges for a design change as set forth in 5.3.1(C) following will apply when an engineering review is required.

(C) Additional Engineering is not an ordering option, but will be applied to an Access Service Request when the Telephone Company determines that Additional Engineering is necessary to accommodate a customer request. Additional Engineering conditions and charges are as set forth in 8.1 following and are in addition to the regulations, rates and charges specified in this section.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.7 Access Order Service Date Intervals

Access Service is provided with Service Date Intervals. The Service Date Interval is that period of time which the Telephone Company requires to properly provision the service and begins when the customer submits a completed Access Service Request for service, as set forth in 5.1 preceding. The Telephone Company shall publish and make available to all customers, upon reasonable request, a schedule of Service Date Intervals applicable for Switched and Special Access Services. The schedule shall specify the services and the quantities of services that can be provided in the Service Date Intervals. Service Date Interval schedules are provided during regular business days at Telephone Company offices at which the customer places an order for Access Service.

Access Services provided in a Service Date Interval will be installed during Telephone Company business days. If a customer requests that installation be done outside of scheduled work hours, and the Telephone Company agrees to this request, the customer will be subject to applicable Additional Labor Charges as set forth in 8.2. following.

5.1.8 Selection of Facilities For Access Order

When there are analog or digital high capacity 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 Switched or Special Access Service requested in an Access Service Request. The Telephone Company will make a reasonable effort to accommodate the customer request.

For all other Access Service Requests, the option to request a specific transmission path or channel is not provided except as provided for under Special Facilities Routing as set forth in 11. following.

5. Ordering Switched and Special Access Service (Cont'd)

5.1 Access Service Request Requirements (Cont'd)

5.1.9 Shared Use Facilities

Shared Use (i.e., Switched and Special Access Services provided over the same analog or digital high capacity facilities) is allowed. Shared use facilities to a Hub will be ordered and provided as Special Access Service. While shared use is allowed, individual services utilizing these facilities must be ordered either as Switched Access Service or Special Access Service. When placing the order for the individual service(s), the customer must specify a channel assignment for each service ordered.

5.2 Access Services Provided by More than One Telephone Company

The Telephone Company will provide Access Services under this tariff where more than one Telephone Company is involved in the provision of Access Service in (A), (B) or (C) following. The Single Company Billing arrangement in (A) following will be used for FGA and BSA-A switched access services except where interconnection arrangements between the telephone companies involved permit the use of the Multiple Company Billing arrangement in (B) following. The Telephone Company will notify the customer of the billing arrangement when the customer orders FGA or BSA-A service. The Multiple Company Billing arrangement, in (B) following, will be used for all FGB, FGC, FGD, BSA-B, BSA-C, BSA-D, 800, 888, 877 Access and 900 Access Services and Special Access Services.

5. Ordering Switched and Special Access Service (Cont'd)

5.2 Access Services Provided by More than One Telephone Company (Cont'd)

(A) Single Company Billing

For FGA and BSA-A Switched Access Service the customer shall submit an ASR to the Telephone Company in whose territory the dial tone office is located. The Telephone Company receiving the order from the customer will arrange to provide the service and bill the customer as in 2.4.7(A).

For services ordered as set forth preceding, the customer shall provide a copy of the ASR containing all information as required in 5.1 to any other Telephone Company involved in providing the service.

(B) Multiple Company Billing

For all Switched and Special Access Services, the customer shall submit an ASR to each Telephone Company involved in providing the service.

Each Telephone Company will provide the appropriate access service elements within its operating territory to a physical point of interconnection with the other involved Telephone Company(ies). The physical point of interconnection is the location where one Telephone Company's facilities connect with another Telephone Company's facilities.

Each Telephone Company that receives an order will bill the customer for the appropriate access service elements provided by each respective Telephone Company as in 2.4.7.

5. Ordering Switched and Special Access Service (Cont'd)

5.2 Access Services Provided by More than One Telephone Company (Cont'd)

(C) EAS Arrangements

Where a customer utilizes FGA or BSA-A to originate and/or terminate calls within an Extended Area Service (EAS) calling area provided by more than one telephone company, as set forth in 2.4.7(C) preceding, the customer shall submit an ASR for FGA or BSA-A service in the manner set forth in (A) preceding. The customer shall also provide a copy of the ASR to any other Telephone Company involved in providing the service within the EAS calling area.

5.3 Access Order Charges

5.3.1 Access Service Request Modifications

The customer may request a modification of its Access Service Request prior to the service date. The Telephone Company will make every effort to accommodate a requested modification when it is able to do so with the normal work force assigned to complete such an order within normal business hours. If the modification cannot be made with the normal work force during normal business hours, the Telephone Company will notify the customer. If the customer still desires the Access Service Request modification, the Telephone Company will schedule a new service date. All charges for Access Service Request modifications will apply on a per occurrence basis.

Any increase in the number of Special Access Service circuits or Switched Access Service lines, trunks or busy hour minutes of capacity will be treated as a new Access Service Request (for the increased amount only).

If order modifications are necessary to satisfy the transmission performance for a Special Access Service ordered by a customer, these changes will be made without order modification charges being incurred by the customer.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modifications (Cont'd)

(A) Service Date Change Charge

Access Order service dates may be changed, but the new service date may not exceed the original service date by more than 30 calendar days. If the customer is unable to accept the service on the established service date and/or the customer requested service date is more than 30 calendar days after the original service date, the customer will have the option of (a) or (b) following:

(a) The original order will be cancelled by the Telephone Company, and reissued with appropriate cancellation charges applied, or

(b) the billing will commence for the services ordered on the original ASR.

If the Telephone Company determines it can accommodate the customer's request without delaying service dates for orders of other customers, a new service date may be established that is prior to the original standard or negotiated interval service date.

If the service date is changed to an earlier date, and the Telephone Company determines additional labor or extraordinary costs are necessary to meet the earlier service date requested by the customer, the customer will be notified by the Telephone Company that Expedited Order Charges as set forth in (D) following apply. Such charges will apply in addition to the Service Date Change Charge.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modifications (Cont'd)

(A) Service Date Change Charge (Cont'd)

A Service Date Change Charge will apply, on a per order per occurrence basis, for each service date changed after the Plant Test Date of the ASR. The applicable charge is:

	USOC	CHARGE
Service Date Change Charge, per order	OMC	$26.21

(B) Partial Cancellation Charge

Any decrease in the number of ordered Special Access Service Circuits or Switched Access Service lines, trunks or busy hour minutes of capacity will be treated as a partial cancellation and the charges as set forth in 5.3.2(C) following will apply.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modifications (Cont'd)

(C) Design Change Charge

The customer may request a design change to the service ordered. A design change is any change to an Access Service Request which requires engineering review. An engineering review is a review by Telephone 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 or a change in the type of Transport Termination (Switched Access only), type of channel interface, type of Interface Group or technical specification package. Design changes do not include a change of customer premises, end user premises, end office switch, Feature Group or BSA type or Special Access Service circuit 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 Telephone Company will review the requested change, notify the customer whether the change is a design change, if it can be accommodated and if a new service date is required. If the customer authorizes the Telephone Company to proceed with the design change, a Design Change Charge will apply. The Design Change Charge will apply on a per order per occurrence basis, for each order requiring a design change. The applicable charge is:

	USOC	Rate
Design Change Charge, per order	H28	$26.21

If a change of service date is required, the Service Date Change Charge as in (A) preceding will also apply.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modification (Cont'd)

(D) Expedited Order Charge

1. When placing an Access Service Request a customer may request a service date that is prior to the Telephone Company's published service date interval. A customer may also request an earlier service date on a pending Access Service Request. If the Telephone Company determines that service can be provided on the requested date. A customer may also request an earlier service date on a pending Access Order. If the Telephone Company determines that service can be provided on the requested date, an Expedited Order Charge will apply. (N)

   A customer may request a change of end user premises within the same serving wire center. When this occurs, the service date is changed to reflect the standard service date interval. If the customer requests an earlier service date, an Expedited Order Change will apply.

   When an expedited service date is missed, the Expedited Order Charge will apply unless the missed service date is caused by the Telephone Company.

   The Expedited Order Charge will apply to all services found in the tariff unless otherwise specified. This charge will be applied when the customer requests a service date that is prior to the standard service date interval on an Access Order, or when a customer requests an earlier service date on a pending Access Order. - (N)

Service Date Change Charge as set forth in (A) preceding also applies.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modification (Cont'd)

(D) Expedited Order Charge (Cont'd)

1. (Cont'd)

The Expedited Order Charge, as set forth below, will apply on a per order basis for each day the service date is advanced

Expedited Order Charge
per order, per day advanced $300.00

2. When the request for expediting occurs subsequent to the issuance of the Access Service Request, a Service Date Change Charge as set forth in (A) preceding also applies and are in addition to the Expedited Order Charge calculated in (1) preceding and that additional labor cost or extraordinary costs are required to meet the requested service date, the customer will be notified and will be provided with an estimate of the additional charges involved. Actual charges assessed may not exceed the estimate by more than 10%. Such additional charges will be determined and billed to the customer as follows:

To calculate the additional labor charges, the Telephone Company will, upon authorization from the customer to incur the additional labor charges, keep track of the additional labor hours used to meet the request of the customer and will bill the customer at the applicable Additional Labor charges as set forth in 8.2. following and are in addition to the Expedited Order Charge calculated in (1) preceding.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.1 Access Service Request Modification (Cont'd)

(D) Expedited Order Charge (Cont'd)

2. (Cont'd)

To develop, determine and bill the customer the extraordinary costs which may be involved, the special construction terms and conditions as set forth in the Telephone Company's Interstate Access tariff will be used by the Telephone Company. Authorization to incur the costs and to bill the customer will be in accordance with the terms and conditions of the Telephone Company's Interstate Access tariff.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.2 Cancellation of an Access Service Request

A customer may cancel an Access Service Request on any date after receipt of the Access Service Request by the Telephone Company and prior to the installation of service. The cancellation date is the date the Telephone Company receives written or verbal notice from the customer that the Access Service Request order is to be cancelled. The verbal notice must be followed by written confirmation within 10 days. If written confirmation of the cancellation is not received by the Telephone Company, the verbal notice will not be considered a valid cancellation notice. When a customer cancels an Access Service Request for the discontinuance of service, no charges apply for the cancellation.

(A) Delay of Service Date by Customer

If a customer or a customer's end user is unable to accept Access Service within 30 calendar days after the original service date, the customer has the choice of the following options:

- The Access Service Request shall be cancelled and charges set forth in (C) following will apply, or

- Billing for the service will commence.

In such instances, the cancellation date or the billing date, depending on which option is selected by the customer, shall be the 31st day beyond the original service date of the Access Service Request.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.2 Cancellation of an Access Service Request (Cont'd)

(B) Delay of Service Date by Telephone Company

If the Telephone Company misses a service date by more than 30 days due to circumstances over which it has direct control (excluding, e.g., Acts of God, governmental requirements, work stoppages and civil commotions), the customer may cancel the Access Service Request without incurring cancellation charges.

(C) Cancellation Charge

When a customer cancels an Access Service Request and the Telephone Company incurs any costs associated with the processing of the Access Service Request or installation prior to the cancellation date, the Cancellation Charge specified in (1) or (2) following, whichever is lower, shall apply.

(1) The charge for the minimum period of Switched or Special Access Service as set forth in 5.3.3 following.

(2) A charge equal to the costs incurred in such installation, less estimated net salvage, and/or a charge equal to the costs incurred in such order processing. These charges include the nonrecoverable cost of installation and removal including the costs of engineering, labor, supervision, transportation, rights-of-way and other associated costs.

Installation and Order costs of Switched or Special Access Service facilities are considered to have started when the Telephone incurs any costs associated with such installation or order processing.

5. Ordering Switched and Special Access Service (Cont'd)

5.3 Access Order Charges (Cont'd)

5.3.3 Minimum Period Charges

(A) When Access Service is disconnected 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.

For purposes of applying minimum period charges, the disconnect date shall be two business days after the date the Telephone Company receives written notification from the customer or the date the customer requests service be disconnected, whichever is the later date.

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

For Switched Access Service, the charge for a month or fraction thereof is equal to the applicable minimum monthly charge for the capacity as set forth in 6.5.7 following.

For Special Access Service, the charge for a month or fraction thereof is the applicable monthly rates for the service as set forth in Section 7.2.3 following.

The Minimum Period Charge for part-time Television and Program Audio Services is the applicable daily rate for the service as set forth in Section 7.2.3 following.

6. SWITCHED ACCESS

6.1 General

The Telephone Company adopts, for intrastate services, Section 6 and the associated rates in Section 20 Frontier Telephone Companies Tariff FCC No. 1 (the Telephone Company's interstate access tariff) effective as of July 1, 2012, and any successive issues thereto. This tariff was filed with the FCC on behalf of the Telephone Company and affiliated companies.

This tariff includes all the rules, regulations, rates and charges under which interstate access services will be offered. Exceptions to this adoption of the tariff schedules, if any, are as follows:

6.2 Language Exceptions:

(None)

6.3 Rate Exceptions:

Local Switching Service	Originating	Terminating	
Local Switching (LS1) Prem – Non 800/888	$0.01956700	*	(C)
Local Switching (LS2) Prem – Non 800/888	$0.01956700	*	(C)
Transitional (LS) Nprem – Non 800/888	$0.01956700	*	(C)
Interconnection Service Category			
Transitional Interconnect Charge – Non 800/888	$0.00578580	*	(C)

(D)

*See Frontier Telephone Companies Tariff FCC No. 1 for Rates. (C)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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6. RESERVED FOR FUTURE USE (Cont'd)

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(D)

7. Special Access Service

All terms, conditions, and references in this Section pertain to InterLATA and IntraLATA Special Access Service.

The Special Access Service rates and changes in this Section are applicable to all Citizens Minnesota exchanges with the exception of:

Adams
Alden
Bigelow
Kiester
Leroy
Lyle

Rates and charges for the exchanges listed above are found in Section 12.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service

Special Access Service provides a dedicated transmission path to connect customer designated premises*, either directly or through a Telephone Company hub where bridging or multiplexing functions are performed. Special Access Service may also be combined with Switched Access Services in the provision of a customer's interstate communications service (WATS, 800 or WATS-type Services). Special Access Service includes all exchange access not utilizing Telephone Company central office switches.

Certain Special Access Services listed in this section of the tariff may not be currently offered in all Telephone Company locations but may be provided upon customer request, on an individual case basis, if facilities can be made available with reasonable effort. The Telephone Company will work cooperatively with the Customer to provide the service on a timely basis.

7.1.1 Circuit Types

There are nine types of circuits used to provide Special Access Services:

- Metallic (MT)
- Telegraph Grade (TG)
- Voice Grade (VG)
- Program Audio (AP)
- Video (TV)
- Wideband Analog (WA)
- Wideband Data (WD)
- Digital Data (DA)
- High Capacity (HC)

These circuits can be either analog or digital. Analog circuits are differentiated by frequency spectrum and bandwidth. Digital connections are differentiated by bit rate.

* Telephone Company Centrex CO-like switches are considered to be customer premises for purposes of this tariff.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.1 Circuit Types (Cont'd)

Each of the nine circuits has its own characteristics. All of the circuit types are subdivided by one or more of the following:

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

The circuit descriptions set forth in this section specify the characteristics of the basic circuit and indicates whether the circuit is provided between customer designated premises or between a customer designated premises and a Telephone Company hub where bridging or multiplexing functions are performed.

Customers can order a basic circuit and select from a list of available technical specifications packages (customized or predefined), channel interfaces, and optional features to design a circuit which meets the Customer's specific communications needs. For purposes of ordering circuits, each has been identified as a type of Special Access circuit. However, such identification is not intended to limit a customer's use of the circuit, nor to imply that a circuit is limited to a particular use.

The optional features and functions available with each type of basic circuit are included in the individual service description sections following. The optional features and functions information also indicates with which technical specifications packages they are available.

When a customized circuit is ordered, the Telephone Company may determine that Additional Engineering is required to meet the customer's request for service. The customer will be notified whether Additional Engineering charges apply and will be given an estimate of the hours to be billed before any further action is taken on the order. Additional engineering charges are determined as set forth in Section 8.1 following.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.2 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint 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. A Voice Grade Special Access Circuit may be provided as a two-point service connecting an end user premise and a Telephone Company switch when Special Access is used in conjunction with Switched Access as set forth in Section 6.3.2(R). All types of Special Access Service may be provided as two-point service.

The following diagram depicts an example of a two-point Voice Grade service connecting two customer designated premises located 15 miles apart. The service is provided with the optional feature of C-Type conditioning.

CT - Circuit Termination
CM - Circuit Mileage
SWC - Serving Wire Center

Applicable rate elements are:

- Circuit Termination (2 applicable)
- Circuit Mileage (fixed rate plus rate per airline mile between SWC)
- C-Type Conditioning Optional Feature

In addition, a Special Access Surcharge, Message Station Equipment Recovery Charge, and charges for additional Optional Features and Functions may apply.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.2 Service Configurations (Cont'd)

(B) Multipoint Service

Multipoint service connects three or more customer designated premises through a Telephone Company hub (i.e., bridging locations). Only certain types of Special Access Service are provided as multipoint service. These are so designated in the Service Descriptions for the appropriate circuit.

The circuit between hubs on a multipoint service is a mid-link. There is no limitation on the number of mid-links, but the use of more than three mid-links in tandem may degrade the quality of multi-point facilities.

Multipoint service utilizing a customized technical specifications package, as set forth in 7.1.3, will be provided when technically possible.

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

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.2 Service Configurations (Cont'd)

(B) Multipoint Service (Cont'd)

The following diagram depicts an example of a Voice Grade multipoint service connecting four customer premises via two customer specified bridging hubs.

CT - Circuit Termination
CM - Circuit Mileage
B - Bridging
SWC - Serving Wire Center

Applicable rate elements are:

- Circuit Termination (4 applicable)
- Circuit Mileage (5 sections-fixed rate plus rate per mile between SWC)
- Bridging Optional Features (6 applicable, i.e., each bridge port)

In addition, the Special Access Surcharge, Message Station Equipment Recovery Charge, and charges for other Optional Features and Functions may be applicable.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.3 Technical Specifications Packages

Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is included in each individual service description section in 7.3 through 7.10 following, in a matrix format with the transmission parameters listed down the left side and the packages listed across the top. Each package is identified by a code, e.g., VGC. The first two letters of the code indicate the category of Special Access Service to which the parameters are applicable. These two letter codes are shown above in parentheses following the category of Special Access Service.

The letter "C" following the two letter code indicates the technical specifications package for a customized service. A numeric or alpha-numeric designation following the two letter code indicates the specific predefined package. For a customized service, the customer may select any parameters available with that category of service as long as the parameters are compatible. When appropriate, the Technical Reference which contains detailed specifications for the parameters is shown following the matrix.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.3 Technical Specifications Packages (Cont'd)

All services installed after the effective date of this tariff will conform to the transmission specification standards contained in this tariff or in the following Technical References for each category of service:

Metallic	PUB	TR-NPL-000336
Telegraph Grade	PUB	TR-NPL-000336
Voice Grade	PUB	TR-NPL-000335
	PUB	41004, Table 4
Program Audio	PUB	62503 and associated Addendum Video
	PUB	TR-NPL-000338
Wideband Analog	PUB	62505 and associated Addendum
Wideband Data	PUB	62506
Digital Data	PUB	62507
	PUB	62310
High Capacity	PUB	62508
		62411

The Telephone Company will maintain existing transmission specifications on services installed prior to the effective date of this tariff, except that existing services with performance specifications exceeding the standards listed in this provision will be maintained at the performance levels specified in this tariff.

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

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.4 Channel Interfaces

Channel interfaces at each point of termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in Section 9 following.

Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth in 7.1.3 preceding. When a customized circuit is requested, all channel interface combinations available with the specified type of service are available with the customized circuit.

7.1.5 Alternate Use

Alternate Use occurs when a service is arranged by the Telephone 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 Telephone 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. The customer will pay the stated tariff rates for the Access Service rate elements for the service ordered (i.e., Circuit Terminations, Circuit Mileage [as applicable] and Optional Features and Functions [if any].

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.6 Special Facilities Routing

A customer may request that the Special Access used be specially routed. The regulations, rates and charges for Special Facilities Routing are as set forth in Section 11 following.

7.1.7 Design Layout Report

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

7.1.8 Acceptance Testing

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

(A) For Voice Grade analog services, acceptance testing will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise, and C-message noise as applicable according to the order for service. Voice Grade services acceptance testing will also include a balance (improved loss) test if the customer has ordered that optional feature.

7. Special Access Service (Cont'd)

7.1 Provision of Special Access Service (Cont'd)

7.1.8 Acceptance Testing (Cont'd)

(B) For services other than Voice Grade, acceptance tests will include tests for the parameters applicable to the service as specified by the customer in the order for service.

In addition to the above tests, Additional Cooperative Acceptance Testing and Nonscheduled Testing, as described in Section 8.4 following, are available at the customer's request. All test results will be made available to the customer upon request.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations

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

7.2.1 Rate Categories

The following rate categories apply to Special Access Service:

- Circuit Terminations
- Circuit Mileage
- Optional Features and Functions
- Non Recurring Charges
- Special Access Surcharge
- Message Station Equipment Recovery Charge

These rate categories are described in Sections 7.2.1.(A) through (F) following.

The following is the Telephone Company's Open Network Architecture (ONA) Special Access Basic Serving Arrangement which provides a cross-reference to the generic ONA product name.

Generic Name	Telephone Company Name
Dedicated Alert Transport	Alarm Signal Transport Service

The following is a list of the Telephone Company's Open Network Architecture (ONA) Special Access Basic Service Elements (BSEs) which provide a cross-reference to the generic ONA product names.

Generic Name	Telephone Company Name
Automatic Protection Switching	Automatic Loop Transfer
Bridging	Bridging
Conditioning	Conditioning
Multiplexing - Digital 2000	Multiplexing Arrangements

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(A) Circuit Termination

The Circuit Termination rate category provides for the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Circuit 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. The signaling capability itself is provided as an optional feature as set forth in (C) following. One Circuit Termination charge applies per customer designated premises at which the circuit is terminated. This charge will apply even if the customer designated premises and the serving wire center are co-located in a Telephone Company building.

For the avoidance of any doubt when a customer orders Special Access Service to a Telephone Company Switch, that switch is a customer designated premise (CDP) where the Special Access terminates. (N) (N)

(B) Circuit Mileage

The Circuit Mileage rate category provides for the end office equipment and transmission facilities between serving wire centers and/or Telephone Company hubs. In addition, when Special Access is used in conjunction with Switched Access Service as in Section 6.3.2(T), and the end office serving the customer's end user premises is not capable of combining Switched and Special Access or is not a WATS Serving Office, Circuit Mileage is used to extend the Special Access Circuit to a WATS Serving Office or office capable of combining Switched and Special Access Services. The Circuit Mileage charge is composed of a flat monthly charge plus a rate per mile.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Circuit Mileage (Cont'd)

(1) Fixed Rate

The fixed rate component of Circuit Mileage is applied only once per Circuit Mileage facility and is not applied when two or more customer designated premises are served by a common serving wire center (i.e., mileage is zero). When Special Access is used in conjunction with Switched Access where the customer's end user premises for the Special Access facility is served by a Telephone Company office capable of combining Switching and Special Access Service, or a WATS Serving Office, the fixed rate does not apply.

(2) Per Mile Rate

The mileage to be used to determine the monthly rate for the per mile portion of Circuit Mileage is calculated on the airline distance between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company hub, between two Telephone Company hubs, or between a Telephone Company end office and a WATS serving office, or Telephone Company office capable of combining Switched and Special Access Services. The serving wire center associated with a customer designated

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Circuit Mileage (Cont'd)

(2) Per Mile Rate (Cont'd)

premises is the serving wire center from which this customer designated premises would normally receive dial tone. The methodology for mileage calculation and serving wire center V&H coordinates are specified in National Exchange Carrier Association Tariff FCC. No. 4. Where the calculated miles include a fraction, the value is always rounded up the next full mile.

When hubs are involved, mileage is computed and rates applied separately for each section of the Circuit 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 Telephone 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.

When more than one Telephone Company is involved in the provision of Special Access Service, the mileage for the per mile component of Circuit Mileage for each Telephone Company is calculated as set forth in Section 2.4.7.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(C) Optional Features and Functions

Optional Features and Functions may be added to a basic circuit service to improve its quality or utility to meet the customer's specific communications requirements. These optional features and functions are identifiable with specific equipment, and 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 a single rate element.

Descriptions for each of the available Optional Features and Functions are set forth in Sections 7.3 through 7.11 following. Specific rate applications for multiplexing are set forth in 7.2.5 following.

(D) Nonrecurring Charge

Nonrecurring charges are one-time charges that apply for installation of Special Access Services, installation of optional features and functions, and moves and service rearrangements.

(1) Installation of Service

Nonrecurring charges apply to each service installed. The nonrecurring charges for the installation of service are applied per Circuit Termination.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(D) Nonrecurring Charge (Cont'd)

(2) Installation of Optional Features and Functions

Nonrecurring charges apply for the installation of some of the optional features and functions available with Special Access Service. The charge applies whether the feature or function is installed coincident with the initial installation of service or at any time subsequent to the installation of the service.

The optional features for which non-recurring charges apply are:

- Voice Grade Data Capability
- Voice Grade Telephoto Capability
- Program Audio Gain Conditioning
- Program Audio Stereo
- Wideband Data Transfer Arrangement

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(D) Nonrecurring Charge (Cont'd)

(3) Moves

A move involves a change in the physical location of either the customer's premises or a point of termination at 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.

(b) Moves to a Different Building

Moves to a different building will be treated as a discontinuance and a 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. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(D) Nonrecurring Charge (Cont'd)

(4) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, or that involve actual physical change to the service. Changes to pending orders are set forth in Section 5.3.1.

(a) A charge will not apply to administrative changes 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 a 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.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(D) Nonrecurring Charge (Cont'd

(4) Service Rearrangements (Cont'd)

(b) All other service rearrangements will be charged for as follows:

- If the change involves the addition of other customer designated premises to an existing multipoint service, the nonrecurring charge for the Circuit Termination rate element will apply. The charge(s) will apply only for the location(s) that is being added.

- If the change involves the addition of an optional feature or function which has a separate nonrecurring charge, that nonrecurring charge will apply.

- If the change involves changing the type of signaling on a Voice Grade service, a charge equal to the Voice Grade Circuit Termination rate element nonrecurring charge will apply. The charge will apply per service termination affected.

- For all other changes, including the addition of optional feature or function without a separate nonrecurring charge, a charge equal to a Circuit Termination rate element nonrecurring charge will apply. Only one such charge will apply per service, per change.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(D) Nonrecurring Charge (Cont'd)

(5) Special Access Ordering Charge

	Nonrecurring Charge
ASR Ordering Charge, Per Order	$103.62

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(E) Surcharge for Special Access Service

(1) General

Special Access Services provided under this tariff may be subject to the monthly Special Access Surcharge.

(2) Application

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. 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.

The monthly Special Access Surcharge applies to special access facilities on a per voice equivalent basis as shown in the following example:

Special Access Facility	Voice Grade Equivalent		Surcharge	Monthly Charge
Group	12	x	$25	= $300.00
DS1	24	x	$25	= $600.00

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(E) Surcharge for Special Access Service (Cont'd)

(2) Application (Cont'd)

In the case of multipoint special access facilities, one Special Access Surcharge will apply for each termination of a special access circuit at an end user's premises.

The Telephone Company will bill the customer who orders the special access facility the Special Access Surcharge per installation unless the facility is exempt from the surcharge as set forth in (3) following.

(3) Exemption

The special access facility will be exempted from the monthly surcharge upon receipt of the customer's written certification for the following Special Access Service terminations:

1) an open-end termination in a Telephone Company switch of an FX line, including CCSA and CCSA-equivalent ONALs; or
2) an analog circuit 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 Telephone Company common lines such as terminations which are restricted through hardware or software; or

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(E) Surcharge for Special Access Service (Cont'd)

(3) Exemption (Cont'd)

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 facility accesses only FGA and no local exchange lines, or special access facility between customer points of termination, or special access facility connecting CCSA or CCSA-type equipment (inter-machine trunks); or

6) a termination that the customer certifies to the Telephone Company is not connected to a PBX or other device capable of interconnecting the special access facility to a local exchange subscriber line.

Written certification for exemption must include the reason the service is exempted from the surcharge using the categories of exemption as stated above. An ASR may be used for exemption certification, provided all information as required by this section is included. The Telephone Company will bill the surcharge to all customers who have not provided valid exemption certification.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(E) Surcharge for Special Access Service (Cont'd)

(4) Rate

	USOC	Monthly Rate
Surcharge for Special Access Service		
- Per Voice Grade Equivalent	S25	$43.71 (06.14.2023)

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(F) Message Station Equipment Recovery Charge

(1) General

The Message Station Equipment Recovery Charge is a charge to recover that portion of message station equipment that is assigned to Special Access Service and is assessed only to those customers to which the Special surcharge applies.

(2) Rate

Message Station Equipment Recovery Charge

- Per Special Access Surcharge Assessed

Jurisdiction	USOC	Monthly Rate
Citizens Minnesota	UTM	$0.00

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.2 Minimum Periods

The minimum service period for all services except part-time and occasional Video and Program Audio services is one month. The minimum service period for part-time Video and Program Audio 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.).

7.2.3 Application of Daily and Monthly Rates

(A) Daily Rates

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

Part-time Program Audio or Video Service ordered on one Access Service Request and provided within a consecutive 30 day period will be charged the daily rate, not to exceed an amount equal to the monthly rate. For each subsequent day or part day, a charge equal to 1/30th of the monthly rate shall apply.

(B) Monthly Rates

Monthly rates are flat 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.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.4 Facility Hubs and Multiplexing

A customer has the option of ordering Voice Grade facilities or High Capacity facilities (i.e., Group, Supergroup, Mastergroup, DS1, DS1C, DS2, DS3 or DS4) to a facility hub for multiplexing to individual services of a lower capacity or bandwidth (e.g., Telegraph, Voice, Program Audio, etc.). Additionally, the customer may specify optional features for the individual circuits derived from the facility to further tailor the circuit to meet specific communications requirements.

Some of the types of multiplexing available include the following:

- from higher to lower bit rate
- from higher to lower bandwidth
- from digital to voice frequency circuits

A hub is a Telephone Company designated wire center at which multiplexing functions are performed.

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 Service Request the customer will specify the desired hub. The National Exchange Carrier Association Tariff FCC No. 4 identifies serving wire centers, hub locations and the type of multiplexing functions available.

Point to point services may be provided on circuits of these facilities to a hub. The transmission performance for the point to point service provided between the customer designated premises will be that of the lower capacity or bit rate.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.4 Facility Hubs and Multiplexing (Cont'd)

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

Cascading multiplexing occurs when a high capacity circuit is de-multiplexed to provide circuits with a lesser capacity and one of the lesser capacity circuits is further de-multiplexed. When cascading multiplexing is performed, whether in the same or a different hub, a charge for the additional multiplexing unit also applies. When cascading multiplexing is performed at different hubbing locations, Circuit Mileage charges also apply between the hubs.

Although not requiring multiplexing, the Telephone Company will designate certain hubs for Video and Program Audio Services. Full-time service will be provided between a customer designated premises and a hub and billed accordingly at the monthly rates set forth in 7.6.5 and 7.7.4 for a Circuit Termination, and Circuit Mileage and Optional Features and Functions as applicable. The customer may order part-time and occasional Program Audio services as needed between the hub and a second customer designated premises. The rate elements required to provide the part-time or occasional service (i.e., Circuit Termination, and Circuit Mileage and Optional Features as applicable) will be billed at daily rates for the duration of the service requested.

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.5 Shared Use Analog and Digital High Capacity Services

Shared use refers to a rate application applicable only when the customer orders High Capacity or Wideband Analog facilities between a customer designated premises and a Telephone Company hub where the Telephone Company performs multiplexing/demultiplexing functions and the same customer then orders the derived circuits as Special and Switched Access Services.

The facility will be ordered, provided and rated as Special Access Service (i.e., Circuit Termination, Circuit Mileage, as appropriate, and Multiplexing Arrangement). The nonrecurring charge that applies when the shared use facility is installed will be the nonrecurring charge associated with the appropriate Special Access High Capacity or Wideband Analog Circuit 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 circuits of the shared use facility.

As each individual circuit is activated for Switched Access Service, the High Capacity or Wideband Analog Special Access Circuit Termination and Circuit Mileage rates will be reduced accordingly (e.g., 1/24th for a DS1 service, etc.). Switched Access Service rates and charges, as set forth in Section 6, will apply for each circuit of the shared use facility that is used to provide a Switched Access Service.

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

7. Special Access Service (Cont'd)

7.2 Rate Categories, Applications and Regulations (Cont'd)

7.2.5 Shared Use Analog and Digital High Capacity Services (Cont'd)

When Special Access Service is provided utilizing a circuit of the shared use facility to a hub, High Capacity or Wideband Analog 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, Telegraph, etc.). The applicable rates and charges will include a Circuit Termination and Circuit Mileage, if applicable. Rates and charges for optional features and functions associated with the service, if any, will apply for the appropriate circuit type.

7. Special Access Service (Cont'd)

7.3 Metallic Service

7.3.1 Basic Circuit Description

A Metallic circuit is an unconditioned two-wire circuit capable of transmitting low speed varying signals at rates up to 30 baud. Metallic circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub where bridging functions are performed. Interoffice metallic facilities will be limited in length to a total of five miles per circuit.

7.3.2 Technical Specifications Packages

	Package MT-			
Parameter	C	1	2	3
DC Resistance Between Conductors	X	X	X	
Loop Resistance	X			X
Shunt Capacitance	X			X

The technical specifications are delineated in Technical Publication TR-NPL-000336.

7.3.3 Channel Interfaces

Compatible channel interfaces are set forth in Section 9 following.

7. Special Access Service (Cont'd)

7.3 Metallic Service (Cont'd)

7.3.4 Optional Features and Functions

(1) Central Office Bridging Capability

(a) Three Premises Bridging - Provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a third customer premises.

(b) Series Bridging of up to 26 customer premises.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package MT-			
	C	1	2	3
Three Premises Bridging	X	X		X
Series Bridging	X		X	

7. Special Access Service (Cont'd)

7.3 Metallic Service (Cont'd)

7.3.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - T6ECS

Monthly Rates	Nonrecurring Charge
$ 41.73 (I)	$534.12

(B) Circuit Mileage
- USOC - 1L5XX

Monthly Rates Fixed	Monthly Rates Per Mile
$ 53.76 (I)	$ 3.05 (I)

7. Special Access Service (Cont'd)

7.3 Metallic Service (Cont'd)

7.3.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions

(1) Bridging
- Per Port
- USOC - BCNM3, Three Premises Bridging
- BCNMS, Series Bridging

Three Premises Bridging Monthly Rate	Series Bridging Monthly Rate
$5.34 (I)	$5.34 (I)

7. Special Access Service (Cont'd)

7.4 Telegraph Grade Service

7.4.1 Basic Service Description

A Telegraph Grade circuit is an unconditioned circuit capable of transmitting binary signals at rates of 0-75 baud or 0-150 baud. This circuit is furnished for half-duplex or duplex operation. Telegraph Grade circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

7.4.2 Technical Specifications Packages

Parameter	Package TG-		
	C	1	2
Telegraph Distortion	X	X	X

The technical specifications are delineated in Technical Reference TR-NPL-000336.

7.4.3 Channel Interfaces

Compatible channel interfaces are set forth in Section 9 following.

7.4.4 Optional Features and Functions

(1) Telegraph Bridging (two-wire and four-wire)

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package TG-		
Telegraph Bridging	C	1	2
	X	X	X

7. Special Access Service (Cont'd)

7.4 Telegraph Grade Service (Cont'd)

7.4.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - TME2X, 2-Wire

2-Wire Monthly Rates	2-Wire Nonrecurring Charge
$ 41.73 (I)	$ 211.93

- Per Point of Termination
- USOC - TME4X, 4-Wire

4-Wire Monthly Rates	4-Wire Nonrecurring Charge
$ 66.67 (I)	$ 211.93

7. Special Access Service (Cont'd)

7.4 Telegraph Grade Service (Cont'd)

7.4.5 Rates and Charges (Cont'd)

(B) Circuit Mileage (Cont'd)
- Per Point of Termination
- USOC - IL5XX

Monthly Rates - Fixed	Monthly Rates -Per Mile
$ 53.76 (I)	$ 3.05 (I)

(C) Optional Features and Functions

(1) Telegraph Grade Bridging
- Per Port
- USOC - BCNT2, 2-Wire
  BCNT4, 4-Wire

2-Wire Bridging Monthly Rate	4-Wire Bridging Monthly Rate
$5.34 (I)	$5.34 (I)

7. Special Access Service (Cont'd)

7.5 Voice Grade Service

7.5.1 Basic Circuit Description

A Voice Grade Circuit is a circuit which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. Effective 2-wire and 4-wire circuits are available as an Optional Feature and Function. Voice Grade circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

Voice Grade Service may be ordered in conjunction with Switched Access services as set forth in Section 6.3.2(T) to provide access for a customer's WATS, 800, or WATS-type service. When the customer orders the Combined Access Service Arrangement, Voice Grade Circuits provide voice frequency transmission capability between an end user premises and Telephone Company offices capable of combining Special and Switched Access services or between an end user premises and a WATS Serving Office (WSO). All applicable Special Access rates and charges apply (including Optional Features and Functions charges). Technical Specifications and Optional Features and Functions available with this arrangement are indicated under Package VG-CA in 7.5.2 and 7.5.5 following.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.2 Technical Specifications Packages

	Package VG-													
Parameter	C*	1	2	3	4	5	6	7	8	9	10	11	12	CA
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	X	X
Return Loss														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, gain hits, and phase hits) are delineated in Technical Reference TR-NPL-000335 and associated Addendum. The technical specifications for dropouts, phase hits, and gain hits are delineated in Technical Reference PUB 41004, Table 4.

* The desired parameters are selected by the customer from the list of available parameters.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.3 Channel Interfaces

The following channel interfaces for Voice Grade service do not require signaling capability: AH, DA, DB, DD, DE DS, NO, PR and TF.

The following 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.

Compatible channel interfaces are set forth in Section 9 following.

7.5.4 Optional Features and Functions

(1) Central Office Bridging Capability

(a) Voice Bridging (two-wire or four-wire)

(b) Data Bridging (two-wire or four-wire)

(c) Telephoto Bridging (two-wire and four-wire)

(d) Dataphone Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports

(e) Telemetry and Alarm Bridging, Split Band-Active Bridging, Passive Bridging, Summation-Active Bridging

(2) Central Office Multiplexing

Voice to Telegraph Grade: An arrangement that converts a Voice Grade circuit to Telegraph Grade circuits using frequency division multiplexing.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(3) Conditioning (Cont'd)

Conditioning provides more specific transmission characteristics for Voice Grade services. C-Type conditioning controls attenuation distortion and envelope delay distortion. Sealing Current helps maintain continuity on dry metallic loops.

For two-point services, the parameters apply to each service. For multipoint services, the parameters apply to each mid link or end link. C-Type conditioning and Data Capability may be combined on the same service.

(a) 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:

Attenuation Distortion (Frequency Response) Relative to 1004 Hz Variation		Envelope Delay Distortion	
Frequency Range (Hz)	Variation (dB)	Frequency Range (Hz)	(micro-seconds)
400-2800	-1.0 to +2.0	1000-2600	100
300-3000	-1.0 to +3.0	800-2600	200
3000-3200	-2.0 to +6.0	600-2600	300
		500-2800	600
		500-3000	3000

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(3) Conditioning (Cont'd)

(b) Sealing Current

Sealing Current Conditioning is provided to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type channel interfaces.

(4) Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. This level must be within a specific range on effective four-wire transmission. The ranges are delineated in Technical Reference TR-NPL-000335.

(5) Improved Return Loss

(a) 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-NPL-000335.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(5) Improved Return Loss (Cont'd)

(b) 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-NPL-000335.

(6) Data Capability

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 multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are:

- Signal to C-Notched Noise Ratio is greater than or equal to 32dB Intermodulation distortion
- Signal to second order modulation products (R2) is greater than or equal to 38dB
- Signal to third order modulation products (R3) is greater than or equal to 42 dB

When a service equipped with Data Capability is used for voice communications, the quality of the voice transmission may not be satisfactory.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(7) 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 of telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are:

Attenuation Distortion (1004Hz Reference)		Envelope Delay Distortion	
Frequency Range (Hz)	Variation (dB)	Frequency Range (Hz)	Variation (mcs)
500-3000	-0.5 to +1.5	1000-2600	110
300-3200	-1.0 to +2.5	800-2800	180

(8) Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service.

(9) Selective Signaling Arrangement

An arrangement that permits code selective ringing for up to ten codes on a multipoint service.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(10) Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their access circuits. The arrangement can be utilized to transfer a leg of a Special Access Service to another circuit 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 circuit, if required, is not included as part of the option.

(11) Four-Wire/Two-Wire Conversions

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.

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 Telephone 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.

When a customer requests that an effective four-wire circuit be terminated with a two-wire circuit interface at the customer designated premises, a four-wire to two-wire conversion is required. The customer will be charged the 4-wire Circuit Termination rate when an effective four-wire is specified in the customer's order. The rate for the conversion is included as part of the basic Circuit Termination rate.

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.4 Optional Features and Functions (Cont'd)

(12) The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package VG-															
	C	1	2	3	4	5	6	7	8	9	10	11	12	CA		
C-Type Condition			X					X	X	X	X	X	X			
Central Office Bridging Capability			X			X					X	X			X	X
Central Office Multiplexing			X						X							
Customer Specified Premises Receive Level			X		X	X				X	X	X				
Data Capability			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	
-For Effective Two-Wire Transmission			X		X	X				X				X		
Sealing Current Conditioning			X						X							
Selective Signaling Arrangement			X		X			X	X			X	X	X		
Signaling Capability				X	X	X	X				X	X	X		X	
Transfer Arrangement				X	X	X	X	X	X	X	X	X	X	X	X	

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - TME2X, 2-Wire

2-Wire Monthly Rates	2-Wire Nonrecurring Charge
$ 63.46 (06.14.2023)	$ 250.13

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(A) Circuit Termination (Cont'd)
- Per Point of Termination
- USOC - TME4X, 4-Wire

4-Wire Monthly Rates	4-Wire Nonrecurring Charge
$ 101.55 (06.14.2023)	$ 250.13

(B) Circuit Mileage
- USOC - IL5XX

Monthly Rates -Fixed	Monthly Rates -Per Mile
$ 81.75 (06.14.2023)	$ 4.63 (06.14.2023)

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(C) Optional Features and Functions

Rates and charges for the Optional Features and Functions of Voice Grade Service listed in this section apply to all jurisdictions of Citizens Telecommunications Company of Minnesota.

(1) Bridging

	USOC	Monthly Rates	Nonrecurring Charge
(a) Voice Bridging			
- Per port			
- Two-Wire	BCNV2	$5.34 (I)	None
- Four-Wire	BCNV4	5.34 (I)	None
(b) Data Bridging			
- Per Port			
- Two-Wire	BCND2	5.34 (I)	None
- Four-Wire	BCND4	5.34 (I)	None
(c) Telephoto Bridging			
- Per port			
- Two-Wire	BCNF2	5.34 (I)	None
- Four-Wire	BCNF4	5.34 (I)	None

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(C) Optional Features and Functions (Cont'd)

(1) Bridging (Cont'd)

	USOC	Monthly Rates	Nonrecurring Charge
(d) DATAPHONE Select-A-Station Bridging			
Sequential Arrangement Ports			
- Per Circuit Connected			
- 2-Wire	DQ2	24.41 (I)	None
- 4-Wire	DQ4	129.72 (I)	None
Addressable Arrangement Ports			
- Per Circuit Connected			
- 2-Wire	KQ2	26.17 (I)	None
- 4-Wire	KQ4	133.26 (I)	None
(e) Telemetry and Alarm Bridging			
Active Bridging Circuit Connections			
- Per Circuit Connected			
- Split Band	CNLRX	$9.25 (I)	None
- Summation	BCNSA	1.58 (I)	None
Passive Bridging Circuit Connections			
- Per Circuit Connected	BCNTP	0.23 (I)	None

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(C) Optional Features and Functions (Cont'd)

		USOC	Monthly Rates	Nonrecurring Charge
(2)	Conditioning			
	- Per Point of Termination			
	- C - Type	X1CPT	12.79 (I)	None
	- Sealing Current	1HBPT	None	None
(3)	Improved Return Loss for Effective Four-Wire Transmission			
	- Per Point of Termination			
	- Two-Wire	1RL2W	18.48 (I)	None
	- Four-Wire	1RL4W	18.48 (I)	None
(4)	Customer Specified Receive Level			
	- Per Two-Wire Point of Termination	RLS	None	None
(5)	Multiplexing Voice to Telegraph Grade			
	- Per Arrangement	MQX	249.26 (I)	None

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(C) Optional Features and Functions (Cont'd)

		USOC	Monthly Rates	Nonrecurring Charge
(6)	Data Capability			
	- Per Point of Termination	XDCPT	$13.11 (I)	$137.52
(7)	Telephoto Capability			
	- Per Point of Termination	XTCPT	3.23 (I)	119.37
(8)	Signaling Capability			
	- Per Point of Termination	XSS++	18.98 (I)	None

- In lieu of ++, substitute appropriate two digit code from following list to specify type of signaling.

AB
AC
CT
DX
DY
EA
EB
EC
EX
GO
GS
LA
LB
LC
LO
LR
LS
RV
SF

7. Special Access Service (Cont'd)

7.5 Voice Grade Service (Cont'd)

7.5.6 Rates and Charges (Cont'd)

(C) Optional Features and Functions (Cont'd)

		USOC	Monthly Rates	Nonrecurring Charge
(9)	Selective Signaling Arrangement - Per Arrangement	USZ	$16.16 (I)	None
(10)	Transfer Arrangement (Key Activated* or Dial Up**) - Per Four Port Arrangement, including control circuit termination***	USY	3.45 (I)	None
	- Per Five Port Arrangement, including control circuit termination***	US5	7.88 (I)	None

* The key activated control circuit is rated as a Metallic Circuit Termination (use USOC T6EME in lieu of T6ECS) and Circuit Mileage, if applicable (use USOC 1L5MX in lieu of 1L5XX).

** The Dial-up option requires the customer to purchase the Controller Arrangement (USOC XTDDU) from Section 13.3.8.

*** An additional Circuit Termination charge will apply whenever a spare circuit is configured as a leg to the customer's premises. Additional circuit mileage charges will apply when the transfer arrangement is not located in the customer premises serving wire center.

7. Special Access Service (Cont'd)

7.6 Program Audio Service

7.6.1 Basic Circuit Description

A Program Audio circuit is a circuit 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. The nominal frequency bandwidths are from 50 to 15000 Hz, from 200 to 3500 Hz, from 100 to 5000 Hz or from 50 to 8000 Hz. Only one-way transmission is provided. Program Audio circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

7.6.2 Technical Specifications Packages

	Package AP-				
Parameter	C*	1	2	3	4
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
Phase Tracking	X				
Short-Term Gain Stability		X			
Short-Term Loss	X				
Total Distortion	X	X	X	X	X

The technical specifications are delineated in Technical Reference PUB 62503 and associated Addendum.

* The desired parameters are selected by the customer from the list available parameters.

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.3 Channel Interfaces

The following channel interfaces (CIs) define the bandwidths that are available for a Program Audio circuit:

CI	Bandwidth
PG-1	Nominal frequency from 50 to 15000 Hz
PG-3	Nominal frequency from 200 to 3500 Hz
PG-5	Nominal frequency from 100 to 5000 Hz
PG-8	Nominal frequency from 50 to 8000 Hz

Compatible channel interfaces are set forth in Section 9 following.

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.4 Optional Features and Functions

(1) Central Office Bridging Capability

Distribution Amplifier

(2) Gain Conditioning

Control of 1004 Hz AML at initiation of service to OdB + 0.5 dB.

(3) Stereo

Provision of a pair of gain/phase equalized channels for stereo applications. (Additional AP channel must be ordered separately).

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package AP-				
	C	1	2	3	4
Central Office Bridging Capability	X	X	X	X	X
Gain Conditioning	X	X	X	X	X
Stereo	X				X

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination

- USOC - TMECS

200-3500 Hz

Monthly Rates	Daily Rates	Nonrecurring Charge
$ 41.73 (I)	$ 4.17 (I)	$ 243.72 (I)

100-5000 Hz

Monthly Rates	Daily Rates	Nonrecurring Charge
$ 45.90 (I)	$ 4.59 (I)	$ 344.68 (I)

50-8000 Hz

Monthly Rates	Daily Rates	Nonrecurring Charge
$ 45.90 (I)	$ 4.59 (I)	$ 344.68 (I)

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates and Charges (Cont'd)

(A) Circuit Termination (Cont'd)
- Per Point of Termination

- USOC - TMECS

50-15000 Hz

Monthly Rates	Daily Rates	Nonrecurring Charge
$ 50.07 (I)	$ 5.00 (I)	$ 308.11 (I)

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates and Charges (Cont'd)

(B) Circuit Mileage
- USOC - IL5XX

200-3500 Hz

Monthly Rate Fixed	Monthly Rate Per Mile
$ 53.76 (I)	$ 3.05 (I)

200-3500 Hz

Daily Rate Fixed	Daily Rate Per Mile
$ 5,38 (I)	$ .31 (I)

100-5000 Hz

Monthly Rate Fixed	Monthly Rate Per Mile
$ 59.4 (I)	$ 6.10 (I)

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates and Charges (Cont'd)

(B) Circuit Mileage (Cont'd)
- USOC - IL5XX

100-5000 Hz

Daily Rate Fixed	Daily Rate Per Mile
$ 5.91 (I)	$ .61 (I)

50-8000 Hz

Monthly Rate Fixed	Monthly Rate Per Mile
$ 59.14 (I)	$ 9.14 (I)

50-8000 Hz

Monthly Rate Fixed	Monthly Rate Per Mile
$ 5.91 (I)	$ .92 (I)

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates and Charges (Cont'd)

(B) Circuit Mileage (Cont'd)
- USOC - IL5XX

50-15000 Hz

Monthly Rate Fixed	Monthly Rate Per Mile
$ 59.14 (I)	$ 18.29 (I)

50-15000 Hz

Daily Rate Fixed	Daily Rate Per Mile
$ 5.91 (I)	$ 1.83 (I)

7. Special Access Service (Cont'd)

7.6 Program Audio Service (Cont'd)

7.6.5 Rates And Charges (Cont'd)

(C) Optional Features and Functions

Rates and charges for the Optional Features and Functions of Program Audio Service listed in this section apply to all jurisdictions of Citizens Telecommunications of Minnesota.

		USOC	Monthly Fixed	Daily Rates	Nonrecurring Charges Monthly	Nonrecurring Charges Daily
(1)	Bridging, Distribution Amplifier - Per Port	BCNPT	$22.02 (I)	$2.21 (I)	None	None
(2)	Gain Conditioning - Per Service	XGC	6.54 (I)	.64 (I)	$216.53	$216.53
(3)	Stereo - Per service	XSC	None	None	233.16	233.16

7. Special Access Service (Cont'd)

7.7 Video Service

7.7.1 Basic Circuit Description

A Video circuit is a circuit with one-way transmission capability for a standard 525 line/60 field monochrome, or National Television Systems Committee color video signal and one or two associated 5 or 15 kHz audio signal(s). The bandwidth for a video circuit is either 30 Hz to 4.5 MHz or 30 Hz to 6.6 MHz. The associated audio signal(s) may be either duplexed or provided as one or two separate circuits. The provision and the bandwidth of the associated audio signal(s) is a function of the channel interface selected by the customer. Video circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

7.7.2 Technical Specifications Packages

	Package TV-		
Parameter	C*	1	2
Amplitude vs. Frequency Response	X		
Chrominance/Luminance Inequalities			
Gain	X	X	X
Delay	X	X	X
Chrominance/Luminance Intermodulation		X	
Chrominance Nonlinear Gain	X		
Chrominance Nonlinear Phase	X		
Crosstalk	X		X
Differential Gain	X	X	X
Differential Phase	X	X	X
Dynamic Gain (picture and sync signal)	X		
Field-Time Distortion	X	X	X
Gain/Frequency Distortion	X	X	X
Gain Stability	X	X	X
Insertion Gain	X	X	X
Line-Time Distortion	X	X	X
Long-Time Distortion	X	X	X

* The desired parameters are selected by the customer from the list of available parameters.

7. Special Access Service (Cont'd)

7.7 Video Service (Cont'd)

7.7.2 Technical Specifications Packages (Cont'd)

	Package TV-		
Parameter	C*	1	2
Luminance Nonlinearity	X		
Luminance Signal/CCIR			
Weighted Noise	X	X	X
Short-Time Distortion			
2 T Pulse	X	X	X
T - Bar Ringing	X	X	X
Signal/15 kHz Flat			
Weighted Noise	X	X	X
Signal/Low Frequency Noise	X		
Stereo Gain Difference	X	X	
Stereo Phase Difference	X	X	
Total Harmonic Distortion	X	X	X
Transient Sync Signal			
Non-Linearity	X		
Video/Audio Delay Difference	X		

The technical specifications are delineated in Technical Reference TR-NPL-000338 and associated Addendum.

* The desired parameters are selected by the customer from the list of available parameters.

7. Special Access Service (Cont'd)

7.7 Video Service (Cont'd)

7.7.3 Channel Interfaces

The following channel interfaces (CIs) define the bandwidth and the provision of the audio signal(s) associated with a Video circuit:

CI	Audio Bandwidth	Provision
2TV6-1	15kHz	1 Channel, duplexed
2TV6-2	15kHz	2 Channels, duplexed
2TV7-1	15kHz	1 Channel, duplexed

CI	Bandwidth	Provision
2TV7-2	15kHz	2 Channels, duplexed
4TV6-5	5kHz	1 Channel, separate
4TV6-15	15kHz	1 Channel, separate
4TV7-5	5kHz	1 Channel, separate
4TV7-15	15kHz	1 Channel, separate
6TV6-5	5kHz	2 Channels, separate
6TV6-15	15kHz	2 Channels, separate
6TV7-5	5kHz	2 Channels, separate
6TV7-15	15kHz	2 Channels, separate

Compatible channel interfaces are set forth in Section 9 following.

7. Special Access Service (Cont'd)

7.7 Video Service (Cont'd)

7.7.4 Rates and Charges

(A) Circuit Termination
- Per Point of Termination

Rates and Charges for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12. Available bandwidths and USOC formats are as follows:

Bandwidth	USOC
-TV-1 or 2	TMEV1
-4TV-5	TMEV4
-6TV-5	TMEV6
-TV-15	TMEV5

7. Special Access Service (Cont'd)

7.7 Video Service (Cont'd)

7.7.4 Rates and Charges (Cont'd)

(B) Circuit Mileage

Rates and Charges for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12. Available bandwidths and USOC formats are as follows:

Bandwidth	USOC
TV-1 or 2	1L5XX
4TV-5	1L5XX
6TV-5	1L5XX
TV-15	1L5XX

7. Special Access Service (Cont'd)

7.8 Wideband Analog Service

7.8.1 Basic Circuit Description

A Wideband Analog circuit is a circuit with a bandwidth measured in kHz for the transmission of a wideband signal. The actual bandwidth is a function of the channel interface selected by the customer. The bandwidths are from 60 to 108 kHz (Group), from 312 to 552 kHz (Supergroup), from 564 to 3084 kHz (Mastergroup), from 300 Hz to 18 kHz, from 29 to 44 kHz or from 28 to 44 kHz. Wideband Analog circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

7.8.2 Technical Specifications Packages

	Package WA-				
Parameter	1	2	2A	3	4
Amplitude Stability	X	X			
Background Noise	X	X	X	X	X
Frequency Shift	X	X	X		
Gain/Frequency Characteristics of:					
- Group Connections	X			X	X
- Supergroup Connections		X			
- Mastergroup Connections			X		
Impulse Noise	X	X	X		
Net Loss Variations	X	X	X	X	X
Pilot Slot		X	X	X	
Spurious Single Frequency Tone	X	X	X		

The technical specifications are delineated in Technical Reference PUB 62505 and associated Addendum.

7. Special Access Service (Cont'd)

7.8 Wideband Analog Service (Cont'd)

7.8.3 Channel Interfaces

The following channel interfaces (CIs) define the bandwidths that are available for a Wideband Analog channel:

CI	Bandwidth
AH-B	60 kHz to 108 kHz (Group)
AH-C	312 kHz to 552 (Supergroup)
AD-D	564 kHZ to 3084 kHz (Mastergroup)
WD-1	300 Hz to 18 kHz
WD-2	29 kHz to 44 kHz
WD-3	28 kHz to 44 kHz

Compatible channel interfaces are set forth in Section 9 following.

7.8.4 Optional Features and Functions

(A) Central Office Multiplexing

(1) Mastergroup to Supergroup

An arrangement that converts a Mastergroup circuit to ten Supergroup circuits using frequency division multiplexing.

(2) Supergroup to Group

An arrangement that converts a Supergroup circuit to five Group circuits using frequency division multiplexing.

(3) Group to Voice

An arrangement that converts a Group circuit to twelve Voice Grade circuits using frequency division multiplexing.

7. Special Access Service (Cont'd)

7.8 Wideband Analog Service (Cont'd)

7.8.4 Optional Features and Functions (Cont'd)

(A) Central Office Multiplexing (Cont'd)

(4) Group to DS1

An arrangement that converts two Group circuit to DS1 circuit using analog to digital conversion.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package WA-				
	1	2	2A	3	4
Central Office Multiplexing:					
Mastergroup to Supergroup			X		
Supergroup to Group		X			
Group to Voice	X				
Group to DS1*					

7. Special Access Services (Cont'd)

7.8 Wideband Analog Service (Cont'd)

7.8.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination

Monthly Rates and Nonrecurring Charges for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available frequency bandwidths and USOC formats are as follows:

Frequency Bandwidths	USOC
60 kHz - 108 kHz	TWT++
312 kHz - 552 kHz	TWT++
564 kHz - 3084 kHz	TWT++
300 Hz - 18 kHz	TWT++
29 kHz - 44 kHz	TWT++

7. Special Access Services (Cont'd)

7.8 Wideband Analog Service (Cont'd)

7.8.5 Rates and Charges (Cont'd)

(B) Circuit Mileage

Fixed and Per Mile Monthly Rates for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available bandwidths and USOC formats are as follows.

Frequency Bandwidth	USOC
60-108 kHz	1LO++
312-552 kHz	1LO++
564-3084 kHz	1LO++
300 Hz-18 kHz	1LO++
29-44 kHz	1LO++

7. Special Access Services (Cont'd)

7.8 Wideband Analog Service (Cont'd)

7.8.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions

(1) Multiplexing

Fixed and Per Mile Monthly Rates for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available multiplexing arrangements and USOC formats are as follows:

Multiplexing Arrangement	USOC (Per Arrangement)
Mastergroup to Supergroup	MQ9++
Supergroup to Group	MQS++
Group to Voice	MQV++
Group to DS1*	MQG++

* Requires two 60-108 kHz Circuit Terminations and Circuit Mileage, one 1.544 Mbps Circuit Mileage and either a 1.544 Circuit Termination or a DS1 to Voice Multiplexing optional feature, depending on whether the service terminates at a customers premises or was purchased as a facility, to a Telephone Company hub for multiplexing to Voice Grade.

7. Special Access Services (Cont'd)

7.9 Wideband Data Service

7.9.1 Basic Circuit Description

A Wideband Data circuit is an analog circuit for the transmission of synchronous serial data at the rate of 19.2, 50.0, or 230.4 kbps or of asynchronous serial data at rates of up to 19.2, 50.0, or 230.4 kbps. Optional arrangements are available for transmission of synchronous serial data at 18.75 or 40.8 kbps. The actual bit rate is a function of the channel interface selected by the customer. This service requires a 303 Data Station(s). The 303 Data Station provides coupling between the customers business machine and the wideband data transmission medium. A voice band coordinating channel is also provided. Wideband Data circuits are provided between customer designated premises.

7.9.2 Technical Specifications Packages

	Package WD-		
Parameter	1	2	3
Error-Free Seconds	X	X	X

While in service, the monthly average of error-free seconds will be equal to or greater than 98.75%.

7. Special Access Services (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.3 Channel Interfaces

The following channel interfaces (CIs) define the bit rates that are available for a Wideband Data circuit:

CI	Bit Rate
WB-18S	18.75 kbps, synchronous
WB-19A	up to 19.2 kbps, asynchronous
WB-19S	19.2 kbps, synchronous
WB-23A	up to 230.4 kbps, asynchronous
WB-23S	230.4 kbps, synchronous
WB-40S	40.8 kbps, synchronous
WB-50A	up to 50.0 kbps, asynchronous
WB-50S	50.0 kbps, synchronous

Compatible channel interfaces are set forth in Section 9 following.

7. Special Access Service (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.4 Optional Features and Functions

(A) Key Activated Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their access circuit(s). The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working circuit that terminates in either the same or a different customer premises. A key activated control service is required to operate the transfer arrangement. A spare circuit, if required, is not included as a part of the option.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package WD-		
	1	2	3
Key Activated Transfer Arrangement	X	X	X

7. Special Access Service (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - TMECS

50.0 or 40.8 Kbps

Monthly Rate	Nonrecurring Charge
$ 909.66 (I)	$ 618.35

7. Special Access Services (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.5 Rates and Charges (Cont'd)

(A) Circuit Termination (Cont'd)

For data speeds other than 40.8 and 50.0 kbps:

Fixed and Per Mile Monthly Rates for the Circuit Termination rate element of Wideband Data Service for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available data speeds and USOC formats are as follows:

Data Speed	USOC
18.75 kbps	TWT++
19.2 kbps	TWT++
230.4 kbps	TWT++

7. Special Access Service (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.5 Rates and Charges (Cont'd)

(B) Circuit Mileage
- USOC - IL5XX

50.0 or 40.8 Kbps

Monthly Rate Fixed	Monthly Rate Per Mile
$ 69.89 (I)	$ 50.29 (I)

7. Special Access Services (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.5 Rates and Charges (Cont'd)

(B) Circuit Mileage (Cont'd)

For data speeds other than 40.8 and 50.0 kbps:

Fixed and Per Mile Monthly Rates for the Circuit Mileage rate element of Wideband Data Service for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available data speeds and USOC formats are as follows:

Data Speed	USOC
18.75 kbps	1LOXX
19.2 kbps	1LOXX
230.4 kbps	1LOXX

7. Special Access Services (Cont'd)

7.9 Wideband Data Service (Cont'd)

7.9.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions

Monthly Rates and Nonrecurring Charges for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available Optional Features and Functions and USOC formats are as follows.

Optional Features and Functions	USOC
Key Activated Transfer Arrangement	
- Per Four Port Arrangement, including control circuit termination*	UTK++

(D) 303 Data Station

Monthly Rates and Nonrecurring Charges for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

303 Data Station	USOC
- Per Point of Termination	TDQ++

* The key activated control circuit is rated as a Metallic Circuit Termination (use USOC TMEME in lieu of TMECS) and Circuit Mileage, if applicable (use USOC 1L5MX in lieu in 1L5XX).

7. Special Access Service (Cont'd)

7.10 Digital Data Service

7.10.1 Basic Circuit Description

A Digital Data circuit is a circuit for duplex four-wire transmission of synchronous serial data at the rate of 2.4, 4.8, 9.6 or 56 Kbps. The actual bit rate is a function of the channel interface selected by the customer. The circuit 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 circuits are only available via Telephone Company designated hubs and are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

The customer may provide the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data circuit at the customer premises. The interim program for interconnection of such equipment is set forth in Technical Reference PUB AS No. 1.

7.10.2 Technical Specifications Packages

	Package DA			
Parameter	1	2	3	4
Error-Free Seconds	X	X	X	X

The Telephone Company will provide a circuit capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds while the circuit 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.

Voltages which are compatible with Digital Data Service are delineated in Technical Reference PUB 62507.

7. Special Access Service (Cont'd)

7.10 Digital Data Service (Cont'd)

7.10.3 Channel Interfaces

The following channel interfaces (CIs) define the bit rates that are available for a Digital Data circuit.

CI	Bit Rate
DU-24	2.4 Kbps
DU-48	4.8 Kbps
DU-96	9.6 Kbps
DU-56	56.0 Kbps

Compatible channel interfaces are set forth in Section 9 following.

7.10.4 Optional Features and Functions

(1) Central Office Bridging Capability

(2) Transfer Arrangement

An arrangement that affords the customer an additional measure of protection and/or flexibility in the use of their access circuit(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 circuit 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 circuit, if required, is not included as a part of the option.

7. Special Access Service (Cont'd)

7.10 Digital Data Service (Cont'd)

7.10.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - TMECS

2.4, 4.8 & 9.6 Kbps

Monthly Rate		Nonrecurring Charge
$100.14	(I)	$ 496.56

56.0 Kbps

Monthly Rate		Nonrecurring Charge
$108.49	(I)	$ 553.83

7. Special Access Service (Cont'd)

7.10 Digital Data Service (Cont'd)

7.10.5 Rates and Charges (Cont'd)

(B) Circuit Mileage
- USOC - IL5XX

2.4, 4.8, & 9.6 Kbps

Monthly Rate Fixed	Monthly Rate Per Mile
$ 53.76 (I)	$ 3.05 (I)

56.0 Kbps

Monthly Rate Fixed	Monthly Rate Per Mile
$107.53 (I)	$ 6.10 (I)

7. Special Access Service (Cont'd)

7.10 Digital Data Service (Cont'd)

7.10.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions

Monthly Rates and Nonrecurring Charges for the Optional Features and Functions of Digital Data Service listed in this section apply to all jurisdictions of Citizens Minnesota.

Optional Features and Functions	USOC	Monthly Rates	Nonrecurring Charges
(1) Bridging			
- Per Port	BCNDA	$27.34 (I)	None
(2) Loop Transfer Arrangement (Key Activated* or Dial-Up**)			
- Per Four-Port Arrangement***	XTD	6.85 (I)	None

* The key activated control is rated as a Metallic Circuit Termination (Use USOC T6EME in lieu of T6ECS) and Circuit Mileage, if applicable (Use USOC 1L5MX in lieu of 1L5XX).

** The Dial-Up option requires the customer to purchase the Controller Arrangement (USOC XTDDU) from Section 8.7(A).

*** An additional Circuit Termination charge will apply whenever a spare circuit is configured as a leg to the customer's premises. Additional Circuit Mileage charges will also apply when the transfer arrangement is not located in the customer premises serving wire center.

7. Special Access Service (Cont'd)

7.10 Digital Data Service (Cont'd)

7.10.5 Rates and Charges (Cont'd)

(D) Channel Service Unit

Monthly Rates and Nonrecurring Charges for the Channel Service Unit* of Digital Data Service listed in this section apply to all jurisdictions of Citizens Minnesota.

Channel Service Limit	USOC	Monthly Rate		Nonrecurring Charge
- Per Point of Termination where provided				
- 2.4 Kbps	TSH24	$18.87	(I)	None
- 4.8 Kbps	TSH48	20.17	(I)	None
- 9.6 Kbps	TSH96	21.16	(I)	None
- 56.0 Kbps	TSH56	22.05	(I)	None

* Channel Service Units will only be provided if they existed in the Telephone Company's inventory as of November 18, 1983.

7. Special Access Service (Cont'd)

7.11 High Capacity Service

7.11.1 Basic Circuit Description

A High Capacity circuit is a circuit for the transmission of nominal 64.0 kbps* or 1.544, 3.152, 6.312, 44.736, or 274.176 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity circuits are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.

The customer may provide the Network Channel Terminating Equipment associated with the High Capacity circuit at the customer's premises. The interim program for interconnection of such equipment is set forth in Technical Reference PUB AS No. 1.

7.11.2 Technical Specifications Packages

	Package HC					
Parameter	0	1	1C	2	3	4
Error-Free Seconds		X				

A circuit 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 as a circuit 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 circuits of two 1.544 Mbps facilities to a Digital Data hub(s). The customer must provide system and channel assignment data.

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.3 Channel Interfaces

The following channel interfaces (CIs) define the bit rates that are available for a High Capacity circuit:

CI	Bit Rate
DS-15*	1.544 Mbps (DS1)
DS-27	274.176 Mbps (DS4)
DS-31	3.152 Mbps (DSIC)
DS-44	44.736 Mbps (DS3)
DS-63	6.312 Mbps (DS2)

Compatible channel interfaces are set forth in Section 9.3.5 following.

7.11.4 Optional Features and Functions

(1) 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 circuit line when a working line fails. The spare circuit is not included as a part of the option. This option requires compatible equipment at both the serving wire center and the customer premises. The customer is responsible for providing the equipment at its premises. Equipment at the customer premises will be provided under tariff only if it existed in the Telephone Company inventory as of November 18, 1983.

* A 64.0 kbps circuit is available as a circuit(s) of a 1.544 Mbps facility to a Telephone Company hub.

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.4 Optional Features and Functions (Cont'd)

(2) Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their access circuit(s). The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working circuit 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 circuit, if required, is not included as part of he option.

(3) Central Office Multiplexing

(a) DS4 to DS1

An arrangement that converts a 274.176 Mbps circuit to 168 DS1 circuits using digital time division multiplexing.

(b) DS3 to DS1

An arrangement that converts a 44.736 Mbps circuit to 28 DS1 circuits using digital time division multiplexing.

(c) DS2 to DS1

An arrangement that converts a 6.312 Mbps circuit to four DS1 circuits using digital time division multiplexing.

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.4 Optional Features and Functions (Cont'd)

(3) Central Office Multiplexing (Cont'd)

(d) DS1C to DS1

An arrangement that converts a 3.152 Mbps circuit to two DS1 circuits using digital time division multiplexing.

(e) DS1 to Voice

An arrangement that converts a 1.544 Mbps circuit to 24 circuits for use with Voice Grade Services. A circuit at this DS1 to the hub can also be used for a Digital Data Service.

(f) DS1 to DS0

An arrangement that converts a 1.544 Mbps circuit to 23 64.0 kbps circuits utilizing digital time division multiplexing.

7. Special Access Service (Cont'd)
7.11 High Capacity Service (Cont'd)
7.11.4 Optional Features and Functions (Cont'd)

(3) Central Office Multiplexing (Cont'd)

(g) DSO to Subrate
An arrangement that converts a 64.0 kbps circuit to subspeeds of up to twenty 2.4 kbps, ten 4.8 kbps, or five 9.6 kbps circuits using digital time division multiplexing.

The following table shows the technical specifications packages with which the optional features and functions are available.

	Available with Technical Specifications Package HC-					
	0	1	1C	2	3	4
Automatic Loop Transfer		X				
Central Office Multiplexing:						
DS4 to DS1						X
DS3 to DS1					X	
DS2 to DS1				X		
DS1C to DS1			X			
DS1 to Voice		X				
DS1 to DS0		X				
DS0 to Subrate*	X					
Transfer Arrangement		X				

(4) Cross Connect
A cross-connect charge will be charged on a monthly basis t recover the costs of the facilities and equipment required for cable connection from the Telephone Company distribution f to the central office electronic equipment owned or dedicate interconnector. Rates will be standard for each Telephone Company central office where an interconnector has establis multiplexing node.
Rates can be found in Section 7.11.15(E). (N)

* Available only on a circuit of a 1.544 Mbps facility to a Telephone Company hub.

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.4 Optional Features and Functions (Cont'd)

(4) Cross Connect (Cont'd)

A Cross Connect charge will not apply when the cross connect is used in conjunction with an unbundled network element (UNE) obtained pursuant to an interconnection agreement with the Company.

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.5 Rates and Charges

(A) Circuit Termination
- Per Point of Termination
- USOC - TMECS

1.544 Mbps

Monthly Rates	Nonrecurring Charge
$ 742.50 (06.14.2023)	$2,113.08

7. Special Access Service (Cont'd)

7.11 High Capacity Service (Cont'd)

7.11.5 Rates and Charges (Cont'd)

(A) Circuit Termination (Cont'd)
- Per Point of Termination

Frequency bandwidths other than 1.544 mbps:

Monthly Rates and Nonrecurring Charges for the Circuit Termination rate element of High Capacity Service for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available frequency bandwidths and USOC formats are as follows:

Frequency Bandwidths	USOC
64 Kbps	TWT++
3.152 Mbps	TWT++
6.312 Mbps	TWT++
44.736 Mbps	TWT++
274.176 Mbps	TWT++

7. Special Access Service (Cont'd)

7.11 High Capacity (Cont'd)

7.11.5 Rates and Charges (Cont'd)

(B) Circuit Mileage
- USOC - IL5XX, Fixed
- IL55X, Per Mile

1.544 Mbps

Monthly Rate Fixed	Monthly Rate Per Mile
$ 359.76 (06.14.2023)	$ 111.23 (06.14.2023)

7. Special Access Service (Cont'd)

7.11 High Capacity (Cont'd)

7.11.5 Rates and Charges (Cont'd)

(B) Circuit Mileage (Cont'd)

For frequency bandwidths other than 1.544 Mbps:

Fixed and Per Mile Monthly Rates for the Circuit Mileage rate element of High Capacity Service for all jurisdictions of Citizens Minnesota will be determined on an Individual Case Basis and filed in Section 7.12 following.

Available frequency bandwidths and USOC formats are as follows.

Frequency Bandwidths	USOC
64 Kbps	1L5XX (Fixed), 1L5XX(Per Mile)
3.152 Mbps	1LO++
6.312 Mbps	1LO++
44.736 Mbps	1LO++
274.176 Mbps	1LO++

7. Special Access Service (Cont'd)

7.11 High Capacity (Cont'd)

7.11.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions

Rates and charges for the Optional Features and Functions of High Capacity Service listed in this section apply to all jurisdictions of Citizens Minnesota.

		USOC	Monthly Rates	Nonrecurring Charges
(1)	Multiplexing			
	DS4 to DS1 - Per arrangement	MXA++	ICB	None
	DS3 to DS1 - Per arrangement	MXB++	ICB	None
	DS2 to DS1 - Per arrangement	MXD++	ICB	None
	DS1C to DS1 - Per arrangement	MXH++	ICB	None
	DS1 to Voice* - Per arrangement	MQ1	$225.16 (I)	$351.85
	DS1 TO DSO - Per arrangement	QMU	634.02 (I)	None
	DSO to Subrates - Per arrangement			
	Up to 20 2.4 kpbs services	QSU24	518.51 (I)	None
	Up to 10 4.8 kbps services	QSU48	267.25 (I)	155.29
	Up to 5 9.6 kbps services	QSU96	185.79 (I)	294.36

* A circuit of this DS1 to the hub can be used for Digital Data service. ICB rates and charges are filed in 11.12 following.

7. Special Access Service (Cont'd)

7.11 High Capacity (Cont'd)

7.11.5 Rates and Charges (Cont'd)

(C) Optional Features and Functions (Cont'd)

		USOC	Monthly Rates	Nonrecurring Charges
(2)	Automatic Loop Transfer			
	- Per arrangement*	T59	$446.55 (I)	None
(3)	Transfer Arrangement (key activated** or dial up***)			
	- Per four port arrangement including control channel termination****)	USV	189.75 (I)	None
(D)	Network Channel Terminating Equipment (NCTE)#			
	- Per Point of termination where provided			
	- 1.544 Mbps	TN615	97.42 (I)	None
	- Automatic Loop Transfer	TN6AL	1,028.11 (I)	None
(E)	Cross Connect			
	- Per Each Interconnection			
	- 1.5 Mbps connection		11.50 (I)	
	- 45 Mbps connection		57.50 (I)	

* An additional Circuit Termination charge will apply whenever the spare line is provided as a let to the customer premises.

** The key activated control circuit is rated as a Metallic Circuit Termination (use USOC 1L5MX in lieu of 1L5XX)>

*** The Dial-up option requires the customer to purchase the Controller Arrangement (USOC XTDDU from Section 13.3.8.

**** An additional Circuit Termination charge will apply whenever a spare circuit is configured as a let to the customers premises. Additional circuit mileage charges will also apply when the transfer arrangement is not located in the customer premises serving wire center.

\# NCTE will only be provided under tariff if it existed in the Telephone Company's inventory as of November 18, 1983.

7. Special Access Service (Cont'd)

7.12 Individual Case Filing

Rates and charges for Special Access Service provided on an individual case basis are filed following:

Customer Name	Description and Location	Nonrecurring Charge (NRC) Monthly Rate (MRC)
NETC Video Network #MN9501008	Analog Video Argyle, Hallock, Kennedy, Stephen and Warren, MN	NRC: ICB MRC: ICB
NETC Video Network #MN9501012	Analog Video Warren, MN	NRC: ICB MRC: ICB
Little Crow Telemedia Network #MN9901088	Analog Video Hutchenson, MN	NRC: ICB MRC: ICB
Cosmos High School #MN9701041	Analog Video Cosmos, MN	NRC: ICB MRC: ICB

8. Miscellaneous Services

In this section normally scheduled working hours are an employee's scheduled work period in any give calendar day (e.g., 7:00 a.m. to 4:00 p.m.) for the application of rates based on working hours. Basic Time is that time during normally scheduled working hours. Overtime is that time outside of normally scheduled working hours on scheduled working days. Premium Time is that time outside of normally scheduled working days.

A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. Work subject to Premium Time is always subject to a minimum charge of four hours.

8.1 Additional Engineering

Additional Engineering will be provided by the Telephone Company at the request of the customer or when the Telephone Company determines that Additional Engineering is necessary to accommodate a customer's request.

Additional Engineering is provided when:

(A) A customer requests additional technical information beyond that normally included by the Telephone Company on the Design Layout Report (DLR) as set forth in 6.4 (F) and Section 11.1.6.

8. Miscellaneous Services (Cont'd)

8.1 Additional Engineering (Cont'd)

(B) Additional engineering time is incurred by the Telephone Company to engineer a customer's specific written request for a customized service or additional engineering activities which are not normally performed in the provision of services under this tariff.

The Telephone Company will notify the customer that Additional Engineering charges, as set forth in 8.1.1 following, will apply before any additional engineering is undertaken. 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 Telephone 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 %.

8. Miscellaneous Services (Cont'd)

8.1 Additional Engineering (Cont'd)

8.1.1 Charges for Additional Engineering

The charges for Additional Engineering are as follows:

Per Engineer, Per Hour, or Fraction Thereof

Jurisdiction	Basic Time USOC: AEH	Overtime USOC: AEH	Premium Time USOC: AEH
CTC of Minnesota	$53.91	$80.87 (I)	$107.82

8. Miscellaneous Services (Cont'd)

8.2 Additional Labor

Additional labor is that labor requested and authorized by the customer on a given service and agreed to by the Telephone Company as set forth in 8.2.1 through 8.2.5 following. The Telephone Company will notify the customer that additional labor charges as set forth in 8.2.7 following will apply before any additional labor is undertaken.

8.2.1 Overtime Installation USOC: ALH

Overtime installation is that Telephone Company installation effort performed outside of normally scheduled working hours.

8.2.2 Overtime Repair USOC: ALH

Over time repair is that Telephone Company maintenance effort performed outside of normally scheduled working hours.

8.2.3 Stand by USOC: ALT

Stand by includes all time in excess of one-half (1/2) hour during which Telephone Company personnel stand by to make installation acceptance tests or cooperative tests with a customer on a given service.

8.2.4 Maintenance with Other Telephone Companies
USOC: ALK

Additional labor charges apply to additional maintenance or repair of facilities which connect to facilities of other telephone companies. This is in addition to the normal efforts required to maintain or repair facilities provided solely by the Telephone Company, as set forth in 2.1.1 (C).

8. Miscellaneous Services (Cont'd)

8.2 Additional Labor (Cont'd)

8.2.5 Other Labor USOC: ALK

Other labor is that additional labor not included in 8.2.1 through 8.2.4 preceding. This includes labor incurred to accommodate a specified customer request that involves only labor which is not covered by any other section of this tariff.

8.2.6 Charges for Additional Labor

The charges for additional labor are as follows:

Per Technician, Per Hour, or Fraction Thereof

Jurisdiction	Basic Time USOC: AEH	Overtime* USOC: AEH	Premium Time** USOC: AEH
CTC of Minnesota	$38.20	$57.30	$76.40

* A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

** Subject to a minimum charge of four hours.

8. Miscellaneous Services (Cont'd)

8.3 Maintenance of Service

(A) The customer will be responsible for reporting troubles sectionalized to Telephone Company facilities and/or equipment. When trouble cannot be clearly sectionalized to the Telephone company facilities and/or equipment, the Telephone Company will test cooperatively or independently to assist in trouble sectionalization.

When a customer reports a trouble to the Telephone Company for clearance and no trouble is found in the Telephone Company's facilities, the customer shall be responsible for payment of a Maintenance of Service charge for the period of time from when Telephone Company personnel are dispatched to the customer's or customer's end user premises to when the work is completed. Failure of Telephone Company personnel to find trouble in Telephone 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 Telephone Company dispatches personnel to the customer's premises, and the trouble is I equipment or communications systems provided by other than the Telephone Company or in detariffed CPE provided by the Telephone Company.

In either (A) or (B) preceding, no credit allowance will be applicable for the interruption involved if the maintenance of Service Charge applies.

8. Miscellaneous Services (Cont'd)

8.3 Maintenance of Service (Cont'd)

(C) The charge for Maintenance of Service are as follows:

Maintenance of Service Periods	USOC	Per Technician
Per occurrence	MVV	The charges for Maintenance of Service are the same as those set for Additional Labor as set forth in 8.2 preceding.

8. Miscellaneous Services (Cont'd)

8.4 Additional Testing

Testing Services provides for the use of a Telephone Company technician in performing specific tests authorized by the customer including additional testing of facilities which connect to facilities of other telephone companies. Testing Services offered under this section of the tariff are optional and are in addition to acceptance tests and in-service tests performed by the Telephone Company as described in 6.4 (G) and Section 7.1. Testing Services are made subject to the availability of the necessary qualified personnel and test equipment at the requested test locations.

Testing Services consist of Additional Cooperative Acceptance Testing (ACAT) which is performed during installation of Access Services and Nonscheduled Testing (NST) which is performed after acceptance of Access Services by the customer. Rates and charges for Testing Service are set forth in 8.4(D) following.

The Telephone Company will provide, upon request, documentation that lists the results of the tests performed. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

8. Miscellaneous Services (Cont'd)

8.4 Additional Testing (Cont'd)

(A) Additional Cooperative Acceptance Testing

Rates and charges for Additional Cooperative Acceptance Testing of Switched and Special Access Services apply per technician used.

(1) Switched Access Service

Additional Cooperative Acceptance Testing (ACAT) of Switched Access Service is performed at the time of installation and involves the Telephone Company provision of a technician at its office(s) and the customer provides a technician at its premises, with suitable test equipment to perform the required tests. The Telephone Company may, at the request of the customer, supply a technician at the customer's premises to perform the required tests.

Additional Cooperative Acceptance Testing may, for example, consist of the following tests:

- C-Notched Noise
- Impulse Noise
- Phase Jitter

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access

The Balloting and Allocation Process is an arrangement whereby:

- An end user may select or be allocated to an interexchange carrier (IC) to place intrastate, interLATA MTS/MTS-type calls without the 101XXXX access code. This IC is referred to as the end user's interLATA primary interexchange carrier (PIC).

- An end user may select or be allocated to an IC or local exchange carrier (LEC) to place intrastate, intraLATA MTS/MTS-type calls without the 101XXXX access code. This IC or LEC is referred to as the end user's intraLATA primary interexchange carrier (IPIC).

Balloting and allocation applies to agents of public and Semipublic Pay Telephone service whereby the agent may select or be allocated to an IC to place intrastate interLATA calls without dialing the 101XXXX access code.

Balloting and allocation also applies to agents of Semipublic Pay Telephone service whereby the agent may select or be allocated to an IC or LEC to place intrastate intraLATA calls without dialing the 101XXXX access code.

In the event that only one IC orders FGD or BSA-D to provide interLATA service or no IC or LEC orders FGD or BSA-D to provide intraLATA service from an end office in accordance with 5.1.2(A), the Balloting and Allocation Process for the PIC or IPIC set forth below will not apply.

On the effective date(s) of interLATA and intraLATA equal access (i.e., introduction of FGD or BSA-D in a serving end office), end users or agents who have not designated or been allocated to an IC or LEC will continue with the same IC or LEC service arrangement as existed prior to office conversion until the allocation process described in (B) occurs.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(A) End User and Agent Notification and Equal Access Balloting Process

(1) InterLATA Equal Access

End users and agents will be notified of the availability of equal access by means of an equal access ballot. ICs intending to participate in the Balloting Process for each serving end office must inform the Telephone Company in writing no later than 120 days prior to the end office conversion to FGD or BSA-D. The notification from ICs wishing to participate in pay telephone balloting must specify if the carrier will handle 0+ traffic only, both 0+ and 1+ traffic, or 0+ with 1+ traffic being handled by a secondary service provider. When 1+ coin traffic is handled by a secondary service provider, the participating IC must identify the secondary service provider. The initial ballot, the first of two ballots the end user and agent may receive, listing all ICs participating in the balloting process, and an explanation of equal access will be mailed to the end user and agent approximately 90 days prior to the end office conversion to FGD or BSA-D. IC names appearing on the ballot will be listed in a random fashion by end office to ensure that no IC will always appear first on the ballot. The IC listed on a pay telephone ballot will be the 0+ carrier.

Using the initial ballot, which end users and agents will be requested to return within 45 days after receipt, the end user or agent may designate an IC for all of its lines or may choose a different PIC for each of its lines. Where an end user has a multi-line hunt group and wants to designate several PICs for this hunt group, special arrangements may be made by contacting the Telephone Company.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(A) End User and Agent Notification and Equal Access Balloting Process (Cont'd)

(1) InterLATA Equal Access (Cont'd)

An agent may designate an IC for the 0+ traffic from a pay telephone. The 1+ traffic from the pay telephone may be handled by the selected 0+ carrier if the carrier handles 1+ traffic, by a secondary service provider designated by the 0+ carrier, or by the default carrier if the 0+ carrier has made no arrangements with the Telephone Company to receive 1+ pay telephone traffic.

A second ballot will be sent to an end user or agent who has not designated an IC, either by return of the initial ballot or by appearing on an IC Customer list. The second ballot will be sent 30 days after conversion of the end office. If the end user or agent does not respond to the second ballot by the requested date, then that end user or agent will be assigned to the allocated IC shown on the second ballot.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(A) End User and Agent Notification and Equal Access Balloting Process (Cont'd)

(2) IntraLATA Equal Access

When intraLATA and interLATA equal access is made available concurrently, end users and agents will be notified of the availability of equal access by means of an equal access ballot. ICs and LECs intending to participate in the Balloting Process for each serving end office must inform the Telephone Company in writing no later than 120 days prior to the end office conversion to FGD or BSA-D. The initial ballot, the first of two ballots the end user and agent may receive, listing all ICs and LECs participating in the balloting process, and an explanation of equal access will be mailed to the end user and agent approximately 90 days prior to the end office conversion to FGD or BSA-D. IC and LEC names appearing on the ballot will be listed in a random fashion by end office to ensure that no IC or LEC will always appear first on the ballot.

Using the initial ballot, which end users and agents will be requested to return within 45 days after receipt, the end user or agent may designate an IC or LEC for all of its lines or may choose a different IPIC for each of its lines. Where an end user has a multi-line hunt group and wants to designate several IPICs for this hunt group, special arrangements may be made by contacting the Telephone Company.

ICs and LECs wishing to participate in semipublic pay telephone balloting must be capable of handling both 0+ or 1+ intrastate intraLATA traffic.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(A) End User and Agent Notification and Equal Access Balloting Process (Cont'd)

(2) IntraLATA Equal Access (Cont'd)

A second ballot will be sent to an end user or agent who has not designated an IC or LEC, either by return of the initial ballot or by appearing on an IC or LEC Customer list. The second ballot will be sent 30 days after conversion of the end office. If the end user or agent does not respond to the second ballot by the requested date, then that end user or agent will be assigned to the allocated IC or LEC shown on the second ballot.

When intraLATA equal access is made available in an end office at some time after the end office has converted to interLATA equal access, the Balloting and Allocation process for the intraLATA IPIC will not apply.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(B) Allocation Process

An IC or LEC must notify the Telephone Company of its intent to participate in the allocation process 52 days prior to the end office conversion to equal access. The IC or LEC must also identify whether it will participate in the allocation of business lines, residence lines, or Public/Semipublic Pay Telephones or any combination.

The Telephone Company will tabulate the initial ballots received from the end users and agents described in 8.5(A) and the IC and LEC Customer lists described in 8.5(C). The percentage of end users and agents who have selected a participating IC or LEC will be determined from these ballots and lists. These percentages will be used for the allocation of end users and agents who did not respond to the initial ballot or appear on an IC or LEC list. The percentages used for allocation will be determined approximately five days after end office conversion. A second ballot, indicated in 8.5(A), will be sent to end users and agents who have been allocated to an IC or LEC.

Separate allocation processes will be used for residence, business and Public and Semipublic Pay Telephone lines. The number of end users and agents designating an IC or LEC by returning the initial ballot or appearing on an IC or LEC end user and/or agent list will be totaled. This total will be utilized to compute the percentages used for allocation of residence and business Customers and Public/Semipublic Pay Telephone Customers.

If an IC or LEC participating in the ballot process notifies the Telephone Company that it does not wish to participate in the allocation process, the percentage of Customers allocable to that nonparticipating IC or LEC will be allocated to the remaining ICs and LECs.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(C) Interexchange Carrier Customer Lists

The Telephone Company will accept IC and LEC Customer lists identifying end users and agents who have made individual arrangements with the IC or LEC to designate the IC or LEC as their primary long distance carrier. The list should be in the form of magnetic tape or paper printout. IC and LEC lists may continue to be received after the initial ballot deadline. All lists must be submitted to the Telephone Company no later than 20 days prior to the end office conversion to be included in the allocation process. If end user and agent ballots are received by the IC or LEC, the end user and agent will be included in the IC or LEC Customer list. The IC or LEC must retain the actual ballots for inspection by the Telephone Company for a period of one year after end office conversion.

(D) End User Choice Discrepancy

An IC or LEC is required to certify at the time it submits end user and/or agent lists to the Telephone Company that it has on file, or has instituted steps designed to obtain signed letters of agency or confirmations of choice from the end user or agent. The IC or LEC is not required to submit letters of agency when submitting end user or agent lists to the Telephone Company, but should maintain the confirmations or letters on file for use in dispute resolution. The IC or LEC should request written confirmation of choice from its Customers no later than the date of submission of its first bill to the Customer.

When an end user or agent indicates more than one PIC or IPIC per line or returns an illegible ballot, the Telephone Company will contact the end user or agent for clarification.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(D) End User Choice Discrepancy (Cont'd)

When the Telephone Company identifies a conflict between a ballot and an IC or LEC list, or between lists submitted by two or more ICs and/or LECs, the Telephone Company will notify, within 10 days, all affected ICs and LECs via a conflict report. Those ICs and LECs not involved in any conflicts will receive a zero conflict report from the Telephone Company.

When an end user or agent returns a ballot to the Telephone Company and also appears on a conflicting IC or LEC Customer list, the ballot takes precedence. If an end user or agent appears on two or more IC or LEC Customer lists, the end user or agent will be allocated along with the nonrespondents to the initial ballot. A letter sent with the second ballot will inform the end user or agent that there exists a conflict between two or more ICs and/or LECs and a selection must be made by the deadline of the second ballot, unless the allocated IC or LEC indicated is the end user's or agent's choice.

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones

(1) InterLATA Equal Access

The balloting and allocation of Public and Semipublic Pay Telephone lines is furnished in accordance with the provisions of the Memorandum of the U.S. District Court for the District of Columbia in United States vs. GTE Corporation (C.A. No. 83-1298), issued December 23, 1988.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(1) InterLATA Equal Access (Cont'd)

The balloting and allocation process is a procedure whereby an agent of Public and Semipublic Pay Telephone service may select and designate to the Telephone Company an IC to access, without dialing an access code, for 0+ interLATA calls. This IC is referred to as the agent's primary IC. The 1+ interLATA calls from a pay telephone will be handled by the agent's primary IC if the IC handles 1+ traffic, by a secondary service provider selected by an agent's primary IC, or by the default carrier if the agent's primary IC has made no arrangements for handling 1+ traffic from a pay telephone.

If the agent's primary IC elects not to submit an order for its 1+ interLATA sent-paid traffic or fails to select a secondary service provider to handle its 1+ interLATA calls from the Telephone Company's pay telephones, the 1+ interLATA coin sent-paid traffic will continue to be routed to the existing 1+ default carrier (provided such carrier continues to accept it) until the 0+ carrier notifies the Telephone Company.

The Telephone Company will notify agents of Public and Semipublic Pay Telephones of the availability of equal access through the mailing of an Equal Access Ballot. The mailing of the initial ballots will take place 90 days prior to conversion.

Agents of Public and Semipublic Pay Telephones will be requested to return their respective ballot to the Telephone Company within 45 days from receipt of the ballot.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(1) InterLATA Equal Access (Cont'd)

An IC obtaining service commitments from agents directly, must obtain signed authorization from those agents. The IC will be required to provide that authorization to the Telephone Company within 30 days of the Telephone Company's request for the resolution of disputes.

Agents of Public and Semipublic Pay Telephones who have not made a primary IC selection, either through the Payphone Equal Access Ballot, or directly with an IC, will be sent a second ballot by the Telephone Company 30 days after the conversion date.

The Telephone Company will tabulate the initial ballots received from the agents and the IC Customer lists. The percentage of agents who have selected a participating IC will be determined from these ballots and lists. These percentages will be used for the tentative allocation of agents who did not respond to the initial ballot or appear on an IC list. The percentages used for allocation will be determined approximately five days after end office conversion.

If an IC participating in the ballot process notifies the Telephone Company that it does not wish to participated in the allocation process, the percentage of Customers allocable to that nonparticipating IC will be allocated to the remaining ICs.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(1) InterLATA Equal Access (Cont'd)

The Telephone Company will make post conversion changes in a Public and/or Semipublic Pay Telephone agent's PIC assignment pursuant to an IC provided list. Should an agent dispute authorization for an IC submitted change within 90 days of the PIC assignment to the IC, and if the IC cannot produce a letter of agency or confirmation of choice from the agent within 30 days of a request by the Telephone Company to do so, the Telephone Company will place the public or semipublic telephone on the agent's previously selected IC network. the IC will be billed one unauthorized PIC change charge in 8.5(M) for the change to the disputed network and one PIC change charge in 8.5(L) for returning the public or semipublic telephone to its originally selected IC network.

If the IC produces the letter of agency of confirmation of choice within 30 days of the request by the Telephone Company to do so, and if the service of the disputing agent has been switched back to its originally selected IC network, the agent will be billed two PIC change charges in 8.5(L) in lieu of charges to the IC, one for the switch to the IC providing the letter of agency or confirmation of choice and one for the subsequent switch back to the agent's original IC.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(2) IntraLATA Equal Access

The balloting and allocation of Semipublic Pay Telephone lines is furnished in accordance with the provisions of the Commission's Order in Docket No. P-999/CI-87-697 which authorizes the selection of intraLATA 1+ and 0+ presubscribed carriers for payphones.

The balloting and allocation process is a procedure whereby an agent of Semipublic Pay Telephone service may select and designate to the Telephone Company an IC or LEC to access, without dialing an access code, for 0+ and 1+ intraLATA calls. This IC or LEC is referred to as the agent's primary intraLATA carrier.

The Telephone Company will notify agents of Semipublic Pay Telephones of the availability of equal access through the mailing of an Equal Access Ballot. The mailing of the initial ballots will take place 90 days prior to conversion.

Agents of Semipublic Pay Telephones will be requested to return their respective ballot to the Telephone Company within 45 days from receipt of the ballot.

An IC or LEC obtaining service commitments from agents directly, must obtain signed authorization from those agents. The IC or LEC will be required to provide that authorization to the Telephone Company within 30 days of the Telephone Company's request for the resolution of disputes.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(2) IntraLATA Equal Access (Cont'd)

Agents of Semipublic Pay Telephones who have not made a primary intraLATA carrier selection, either through the Payphone Equal Access Ballot, or directly with an IC or LEC, will be sent a second ballot by the Telephone Company 30 days after the conversion date.

The Telephone Company will tabulate the initial ballots received from the agents and the IC/LEC customer lists. The percentage of agents who have selected a participating intraLATA carrier will be determined from these ballots and lists. These percentages will be used for the tentative allocation of agents who did not respond to the initial ballot or appear on an IC/LEC list. The percentages used for allocation will be determined approximately five days after end office conversion.

If an IC or LEC participating in the ballot process notifies the Telephone Company that it does not wish to participated in the allocation process, the percentage of Customers allocable to that nonparticipating intraLATA carrier will be allocated to the remaining intraLATA carriers.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(E) Balloting and Allocation Procedure for Public and Semipublic Pay Telephones (Cont'd)

(2) IntraLATA Equal Access (Cont'd)

The Telephone Company will make post conversion changes in a Semipublic Pay Telephone agent's IPIC assignment pursuant to an IC or LEC provided list. Should an agent dispute authorization for an IC or LEC submitted change within 90 days of the IPIC assignment to the IC or LEC, and if the IC or LEC cannot produce a letter of agency or confirmation of choice from the agent within 30 days of a request by the Telephone Company to do so, the Telephone Company will place the semipublic telephone on the agent's previously selected intraLATA carrier network. The IC or LEC will be billed one unauthorized IPIC change charge in 8.5(M) for the change to the disputed network and one IPIC change charge in 8.5(L), for returning the semipublic telephone to its originally selected intraLATA carrier's network.

If the IC or LEC produces the letter of agency of confirmation of choice within 30 days of the request by the Telephone Company to do so, and if the service of the disputing agent has been switched back to its originally selected intraLATA carrier's network, the agent will be billed two IPIC change charges in 8.5(L) in lieu of charges to the IC, one for the switch to the IC or LEC, one for the switch to the IC or LEC providing the letter of agency or confirmation of choice and one for the subsequent switch back to the agent's original intraLATA carrier.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(F) PIC and IPIC Charge Application

Initial end user, end user agent and a local service provider that resells services (herein referred to as reseller) selection of a PIC by ballot or appearing on an IC or, for intraLATA service, a LEC list will not incur a charge. A change of PIC selection prior to the end office conversion to interLATA equal access will not incur a charge. A change of IPIC selection prior to the end office conversion to intraLATA equal access will not incur a charge. Notification of a change in a PIC or IPIC may be coordinated by the end user, end user agent or reseller with either the IC or LEC selected or with the Telephone Company, if it is not the selected LEC. If the customer changes both the PIC and the IPIC on the same order, only one charge (the PIC) will apply. Within six months after conversion to equal access, an end user, end user agent or reseller allocated to an IC or LEC may elect to change to another IC or LEC at no charge, on a one-time basis. After the six month period has elapsed, a nonrecurring charge in 8.5(L) will apply to change the PIC or IPIC. After conversion to equal access, end users, end user agents or resellers who select an IC or LEC by returning the initial ballot will be charged for each change made.

In end offices converted to Equal Access new end users, end user agents or resellers of Pay Telephones and multi-party end users who upgrade to individual lines must presubscribe to the PIC and/or IPIC of their choice at the time an order is placed for service. The IPIC may be an IC or LEC (the Telephone Company or another LEC). Upon the end user, end user agent's or reseller's selection of the PIC and/or IPIC, at the time of placing an order, a confirmation notice will be sent identifying the IC selected as the PIC and/or the IC or LEC selected as the IPIC. From the date of the confirmation notice, he will have 90 days to change his presubscription selection without a charge. If a PIC and/or

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(F) PIC and IPIC Charge Application (Cont'd)

IPIC is not chosen at the time the order for service is submitted, the end user, end user agent or reseller will be sent a confirmation notice which contains a list of ICs with FGD or BSA-D providing interLATA service and/or a list of ICs and LECs providing intraLATA service, and will be informed that they have 90 days to contact the IC and/or LEC of their choice or the Telephone Company to apply for the PIC or IPIC arrangement. If notice is received by the Telephone Company within 90 days of the in-service date for local service or upgrade, no charge will be billed to the end user, end user agent or reseller. If notice is received after 90 days, the end user or agent will be billed a nonrecurring charge for each PIC or IPIC as in 8.5(L). Until the end user, end user agent or reseller receives service from the selected carrier, he may access the carrier of his choice by dialing the appropriate 101XXXX carrier identification code.

The Telephone Company will make post conversion changes in the end user's, end user agent's or reseller's PIC or IPIC assignment pursuant to an IC or LEC provided list of Customers, accepted by the Telephone Company under conditions in (C) and (D). Post conversion changes in a PIC assigned to a Pay Telephone will be made under the conditions set forth in 8.5(E). Should an end user, end user agent or reseller dispute authorization of the change within 90 days of the PIC or IPIC assignment, and if the IC or LEC cannot produce a letter of agency or confirmation from the end user, end user agent or reseller, the Telephone Company will place the end user on the previous IC or LEC network where possible and the IC or LEC will be billed according to the following options:

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(F) PIC and IPIC Charge Application (Cont'd)

(1) If the IC or LEC has previously submitted a letter requesting the Telephone Company to settle end user disputes without investigation, the carrier will be charged two PIC or IPIC change charges, in 8.5(L). One PIC or IPIC change charge is for the change to the disputed carrier and one is for placing the end user on his previous carrier network or the carrier network of his choice. By virtue of the carrier's letter requesting no investigation, the Telephone Company will perform no investigation and will not accept nor request at a later date any letter of authorization regarding an end user's disputed PIC or IPIC assignment. This option does not apply to Pay telephones nor Coinless telephone lines. This option also does not relieve the IC or LEC of the conditions set forth in (C) and (D) preceding.

(2) If the IC or LEC does request in writing that end user PIC or IPIC disputes be resolved with investigation as in (1) preceding, the carrier will be billed one Unauthorized PIC or IPIC charge, in 8.5(M), for the change to the disputed carrier and one PIC or IPIC change charge, in 8.5(L), for placing the end user on the carrier network of his choice.

If, under (2) preceding, the IC or LEC produces the letter of agency or confirmation of choice within 30 days of the Telephone Company request, the end user, end user agent or reseller will be billed two PIC or IPIC charges in 8.5(L) in lieu of charges to the IC or LEC. Charges are only applicable if a change in an end user's, end user agent's or reseller's carrier selection has actually been implemented in the switch.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(G) Multi-party End Users

Multi-party end users will continue with the same carrier service arrangement which existed prior to the end office conversion. However, multi-party end users may access the carrier of their choice by dialing the appropriate 101XXXX carrier identification code. In certain suitably equipped end offices, two-party Customers may subscribe to the carrier of their choice.

(H) Cancellation of a Carrier Participation

If an IC or LEC cancels all of its FGD or BSA-D service in the converting end office prior to the conversion date or discontinues all of its FGD or BSA-D service within two years after the introduction of FGD or BSA-D in the converting end office, the carrier is obligated to do the following:

(1) Notify the Telephone Company of the cancellation of their FGD or BSA-D service, and

(2) Contact in writing all end users, end user agents or resellers who have selected, or been allocated to, the canceling carrier as their PIC or IPIC, inform these end users, end user agents or resellers of the cancellation, request the end users, end user agents or resellers to select a new PIC or IPIC, and state that the canceling carrier will pay the nonrecurring charge as set forth in 8.5(L).

The Telephone Company will bill the canceling IC or LEC for a period of two years from the discontinuance of FGD or BSA-D service, the nonrecurring charge as set forth in 8.5(L) for each end user, end user agent or reseller, this carrier has currently designated to it. Such charge will not apply to the canceling carrier where the canceling IC or LEC transfers or assigns its FGD or BSA-D services and the associated 101XXXX code to another carrier in such manner that the Telephone Company does not change end user, end user agent or reseller records or if another carrier elects to pay nonrecurring charge on behalf of the canceling IC or LEC.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(I) Liability of the Telephone Company

If through the fault of the Telephone Company, the end user, end user agent or reseller is not subscribed to its chosen PIC or IPIC, the nonrecurring charges in 8.5(L) and 8.5(M) do not apply to reassign the end user, end user agent or reseller to his chosen PIC or IPIC.

(J) (Reserved for Future Use)

(K) Carrier Desired Due Date (ICDDD) for PIC or IPIC Installation

An IC or LEC may request a desired due date for PIC or IPIC installation for a specific, single end user, end user agent or reseller acting on behalf of an end user post equal access conversion. This ICDDD is a mutually agreed upon negotiated due date, determined to be between 3 and 45 business days from the date of receipt of the order. The carrier must coordinate the ICDDD with the Telephone Company prior to sending in the first order.

The ICDDD does not apply to routine lists provided by the carrier, as set forth in 8.5(C) and (D). The Nonrecurring Charge for PIC or IPIC as set forth in 8.5(L), applies to each line converted to the carrier requesting ICDDD. This charge will be billed to the carrier's end user Customer.

8. Miscellaneous Services (Cont'd)

8.5 Balloting and Allocation Process For Equal Access (Cont'd)

(L) Presubscription Change Charge (T)

The Presubscription Change Charge is a nonrecurring charge that varies based on the type of PIC Change Order that is submitted. Rates for manually submitted orders will typically be higher than rates for electronically submitted orders. When a customer requests only an interLATA PIC Change, the interLATA Presubscription Change Charge found in Citizens Telecommunications Companies Tariff FCC No. 1 will apply. When a customer requests only an intraLATA PIC Change, the charge from this tariff will apply. When a customer requests both interLATA and intraLATA Presubscription changes to the same phone number on the same order, a lower rate applies. (N)

Presubscription Change Charge

IntraLATA PIC Charge* – per line or trunk:

Manual Change	$5.50
Electronic Change	$1.25

IntraLATA PIC Change Charge* – when made simultaneously with interLATA PIC Change, per line or trunk:

Manual Change	$2.75
Electronic Change	$0.63

(M) The nonrecurring charges for Unauthorized PIC or IPIC changes are as follows: (N)

	Nonrecurring Charge	GSEC
(1) Per Telephone Company Local Business or Residence Service Line or Trunk	$13.80	NEPSUBR (PIC) NAAPSUBR (IPIC)

8. Miscellaneous Services (Cont'd)

8.6 Protective Connecting Arrangements

The following Protective Connecting Arrangements (PCAs) are grandfathered and are offered on the basis of on-the-shelf availability:

Description	USOC	Monthly Rates	Nonrecurring Charges
Automatic PCA with a contact type signaling interface for 2 or 4-wire voice-band connections of CPE communications systems to Telephone company Special Access Services.	CDQ	$5.85	
Automatic PCA for connection of a customer, authorized user or joint user provided communications system arranged for CPE dial or automatic channel signaling, to a Telephone Company Special Access Service which terminates at the distant end in a telephone company-provided PBX arranged for dial or automatic signaling (4 wire).	C234W	10.10	$87.15
PCA which provides for connection of CPE automatic telephone answering devices to central office, PBX trunk, key system lines, and centrex station lines by means of a 2-wire interface.	PA6++	ICB rates and charges apply	
PCA for connection of CPE Answering or recording equipment to Telephone Company lines, for one-way voice transmission in each direction but not simultaneously. Recording of two-way conversations is prevented, by the PCA.	RDL	5.40	30.75

8. Miscellaneous Services (Cont'd)

8.6 Protective Connecting Arrangements (Cont'd)

Description	USOC	Monthly Rates	Nonrecurring Charges
PCA for use with CPE answer only equipment where two-way transmission is required	PFZ++	ICB rates and charges apply	
Same application as PFZ++ with voice control disconnect and automatic receive volume limiting.	PF9++	ICB rates and charges apply	
PCA for use with CPE to provide data on PBX trunks. Also requires standard PBX trunk PCA.	PGA++	ICB rates and charges apply	
PCA to permit connection of CPE message registers to exchange facilities of the Telephone Company for indications of message registration for outgoing calls over the associated central office trunks (facilities). Each trunk would also have a PCA (typically CDH or CD8) for connection of the CPE PBX. Association of the trunk with the Station is make by the CPE.	PGB++	ICB rates and charges apply	
Alarm coupler for use with rotary dial one-way transmission CPE alarm signaling device.	PGH++	ICB rates and charges apply	

8. Miscellaneous Services (Cont'd)

8.6 Protective Connecting Arrangements (Cont'd)

Description	USOC	Monthly Rates	Nonrecurring Charges
PCA to permit the connection of CPE to a Telephone Company special recording trunk arranged for 2-way service, i.e., outward dialing by hotel/motel guests and rering by the operator of the Telephone Company long distance switchboard (the equivalent of a toll terminal).	PDA++	ICB rates and charges apply	
For termination of CPE tie lines, with CPE channel signaling, in Centrex systems 4-wire.	C2H	$7.20	$21.60
PCA used for automatic connection of CPE voice transmitting and/or receiving terminal equipment to an exchange line or PBX/CTX station line, or to a WATS Access Line.	C2ACP	9.40	7.80
PCA to provide for connection of CPE terminal equipment to Telephone Company central office key system and PBX station lines and WATS Access lines via 3-wire interface.	PDJ++	ICB rates and charges apply	

8. Miscellaneous Services (Cont'd)

8.6 Protective Connecting Arrangements (Cont'd)

Description	USOC	Monthly Rates	Nonrecurring Charges
PCA for connection of CPE voice communications systems and/or terminal equipment via 2-wire interface to Telephone Company lines and trunks (only loop start trunks not equipped for toll diversion), or terminal equipment.	PDK++	ICB rates and charges apply	
Manual PCA used to connect a cord switchboard position of CPE system, which provides supervisory signals, to an exchange trunk line.	PDQ++	ICB rates and charges apply	
Automatic PCA used to connect an exchange trunk line arranged for two-way combination service to and from the attendant position and from the dial switching equipment of a CPE system.	CDH	$10.45	$39.05
Automatic PCA used to connect an exchange trunk line arranged for one-way incoming service to the attendant position of a CPE system.	PDV++	ICB rates and charges apply	
Automatic PCA used to connect an exchange trunk line arranged for one-way outgoing service from the attendant position of a CPE system.	PDZ++	ICB rates and charges apply	

8. Miscellaneous Services (Cont'd)

8.6 Protective Connecting Arrangements (Cont'd)

Description	USOC	Monthly Rates	Nonrecurring Charges
Automatic PCA used to connect an exchange trunk line arranged for one-way outgoing service from the dial switching equipment of a CPE system.	PFA++	ICB rates and charges apply	
Automatic PCA used to connect an exchange trunk line arranged for one-way service, to and from the attendant position of a CPE system.	CE9	$7.80	$39.05
PCA used for automatic connecting of CPE voice transmitting and/or receiving terminal equipment bridged to an exchange line or PBX/CTX station line, or to a Switched Access line, e.g., WATS access Line, which is terminated in a Telephone Company station.	C2AKS	9.40	7.80
Automatic PCA used to connect an exchange trunk line, arranged for one-way service, i.e., outward dialing by hotel/motel guests to the operator position of a Telephone Company long distance switchboard (the equivalent of a toll terminal).	PFV++	ICB rates and charges apply	
PCA to provide for connection of CPE originate only or originate and answer terminal equipment.	PFW++	ICB rates and charges apply	

8. Miscellaneous Services (Cont'd)

8.7 Miscellaneous Equipment

(A) Controller Arrangement

This arrangement enables the customer to control up to 48 transfer functions at a Telephone Company central office via a remote keyboard terminal capable of either 300 or 1200 bps operation. Included as part of the Controller Arrangement is a dial-up data station located at the Telephone Company Central Office to provide access to the Controller arrangement. This dial-up data station consists of a 212A DATAPHONE data set and an appropriate Telephone Company provided channel.

The Controller Arrangement must be located in the same Telephone Company central office as the transfer functions which it controls.

	USOC	Monthly Charge
Per arrangement	XTDDU	$100.00

8. Miscellaneous Services (Cont'd)

8.8 Restoration Priority

The Telephone Company will arrange a Special Access Service for Restoration Priority on receipt of certification in conformance with Part 64, Subpart D, Appendix A of the Federal Communications Commission's Rules and Regulations. A charge applies when a request to provide of change a Restoration Priority is received subsequent to the issuance of an Access Order to install the service. No charge applies when a Restoration Priority is discontinued.

	Nonrecurring Charge
Restoration priority, Per service arranged	$104.02

8. Miscellaneous Services (Cont'd)

8.9 Standard Jacks – Registration Program

Standard jacks are provided by the Telephone Company to connect Registered Equipment to those services that are subject to the Registration Program as set forth in 2.5 preceding. The use of jacks is covered in Part 68 of the FCC's Rules and Regulations. Specific jacks are described in the document on file with the FCC entitled "Descriptions of Standard Registration Program Connection Configurations Supplementing configurations Described in Subpart F of Part 68 of FCC's Rules and Regulations."

These jacks are used to terminate services provided by the Telephone Company. Other services or facilities provided by the Telephone Company or by others may also be terminated in any space capacity of the jacks remaining after installation without additional charge for the use of such capacity.

The nonrecurring charges, which include installation, for standard jacks and their typical uses are set forth following:

		USOC	Nonrecurring Charges
(A)	Standard Voice Jacks		
(1)	Miniature six-position jacks for connection of terminal equipment as follows:		
(a)	Single line telephone set surface or flush mounted.	RJ11C	$10.00
(b)	Single line telephone sets wall mounted.	RJ11W	10.00

8. Miscellaneous Services (Cont'd)

8.9 Standard Jacks – Registration Program (Cont'd)

(A) Standard Voice Jacks (Cont'd)

(1) (Cont'd)

		USOC	Nonrecurring Charges
(c)	Two-line nonkey telephone sets surface or flush mounted.	RJ14C	$10.00
(d)	Single-line bridged 4-wire exchanged 2/RT, T1/R1	RJ1DC	10.00
(e)	Two-line nonkey telephone sets wall mounted	RJ14W	10.00
(f)	Special single line equipment for use in hospital critical care areas.	RJ17C	10.00
(g)	9DB single line data equipment with mode indication and mode indication common leads. This jack is normally used in association with a series jack.	RJ16X	10.00
(h)	Three-line non-key telephone sets and ancillary devices.	RJ25C	49.00

8. Miscellaneous Services (Cont'd)

8.9 Standard Jacks – Registration Program (Cont'd)

(A) Standard Voice Jacks (Cont'd)

(2) 50 Position Miniature Ribbon for connection of multiline terminating equipment and channel derivation devices as follows:

		USOC	Nonrecurring Charges
(a)	For connection to 2-wire tie trunks E&M type I signaling. (12 line capacity)	RJ2EX	$160.00
(b)	For connection to 4-wire tie trunks E&M type I signaling. (8 line capacity)	RJ2GX	160.00
(c)	For connection to 2-wire tie trunks E&M type II signaling. (8 line capacity)	RJ2FX	160.00
(d)	For connection to 4-wire tie trunks E&M type II signaling. (6 line capacity)	RJ2HX	160.00
(e)	For connection to off-premises station lines. (25 lines capacity)	RJ21X	160.00
(f)	For use with series devices such as toll restrictors. (12 line capacity)	RJ71C	105.00
(g)	For connection of up to 12 line bridged 4-wire exchange 2/RT, T1/R1.	RJ2DX	100.00

8. Miscellaneous Services (Cont'd)

8.9 Standard Jacks – Registration Program (Cont'd)

(A) Standard Voice Jacks (Cont'd)

(3) Series Jacks for connection of terminal equipment as follows:

		USOC	Nonrecurring Charges
(a)	Single line alarm reporting devices	RJ31X	66.00
(b)	Series ancillary devices such as automatic dialers. Single line sets with exclusion.	RJ32X	66.00
(c)	Two line telephone sets with exclusion on one line.	RJ37X	66.00

(4) Weatherproof Jack for use with single line telephone sets used at locations such boats and marinas. RJ15C 120.00

(B) Standard Data Jacks

		USOC	Nonrecurring Charges
(1)	Universal Data Jack for use in connecting fixed loss loop (FLL) and programmed (P) types of data equipment. (1 line capacity)	RJ41S	$65.00
(2)	Programmed Data Jack for use in connecting programmed data equipment. (1 line capacity)	RJ45S	65.00

8. Miscellaneous Services (Cont'd)

8.9 Standard Jacks – Registration Program (Cont'd)

(B) Standard Data Jacks (Cont'd)

	USOC	Nonrecurring Charges
(3) Multiple Line Universal Data Jack for use in connecting fixed loss loop (FLL) and programmed (P) types of data equipment. This jack will terminate up to eight lines. The selection of this jack requires the use of the equipment listed following.	RJ26X	$250.00
(a) Multiple Line Universal Data Jack Circuit Cards. For use with RJ26X . One Circuit card per circuit required.	RJ26S	79.00
(b) Multiple Line Universal Data Jacking Mounting Options. For use with RJ26X. One required Per RJ26X.		
- Wall mounting with cover	RJM3X	45.00
- Rack Mounting (19 inch or 23 inch)	RJM4X	28.00

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services

The Telephone Company will, upon request, provide Billing Name and Address Services (BNAS) to a Telecommunications Service Provider (customer), or its authorized billing and collection agent. Telecommunications Service Providers include interexchange carriers, operator service providers, enhanced service providers, and any other provider of intrastate telecommunications services. There are three BNAS offerings available pursuant to this tariff, Per Call/Periodic BNA, Data Gathering Service (DGS), and End User Validation List.

8.10.1 Per Call/Periodic BNA and Data Gathering Service

Per Call/Periodic BNA is the billing name and address information and Data Gathering is the billing telephone number, name, address and associated working telephone number information for customer provided ten digit end user telephone numbers required by the Telecommunications Service Provider customer to bill for calls placed within a specific time period. Per Call/Periodic BNA and DGS are offered subject to the conditions set forth in the following:

A standard format for the receipt and provision of telephone number and billing name and address information will be established by the Telephone Company. Charges for each Per Call/Periodic BNA searched for and found or searched for and not found will be billed at rates in 8.10.3(A). Charges for each record accessed for DGS are set forth under 8.10.3(B). Per Call/Periodic BNA and DGS will be provided via magnetic tape, electronic transmission, or paper format, at the option of the customer, at rates in 8.10.3(A) or 8.10.3(B). The processing fee will be applied on a per state basis, once per calendar year for BNAS processing done within that calendar year.

The customer must order Per Call/Periodic BNA or DGS and provide test data tape at least 30 days prior to delivery of the first customer order.

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services (Cont'd)

8.10.1 Per Call/Periodic BNA and Data Gathering Service (Cont'd)

The frequency for receipt of the customer provided orders for Per Call/Periodic BNA or DGS will be no more than twice monthly and at intervals mutually agreed upon between the Telephone Company and the customer. The customer provided end user telephone numbers will be programmed by the Telephone Company with the proper end user's billing name and address contained in the Telephone Company's file at that time.

Per Call/Periodic BNA and DGS information for end user telephone numbers will be provided unless the end user provides notice of nonconsent to the Telephone Company of nonconsent to the release of the BNA/DGS data. Within 30 days of receipt of such notice, the Telephone Company will discontinue disclosure of the end user BNA/DGS data.

For other than electronic transmission, the output records will be sent to the customer via first class U. S. Mail. The output records will normally be made available for mailing ten workdays after receipt of the customer order or at an interval mutually agreed upon. Availability may be delayed in case of input errors in the customer provided order.

The customer may request data be transmitted. Data transmission charges will be determined on an ICB. Data transmission hardware and software specifications will be mutually agreed upon by the Telephone Company and the customer.

Per Call/Periodic BNA and DGS detail will not be retained by the Telephone Company longer than 45 days. If the customer requests that the output be made available on a second occasion, such request must occur within 30 days from the date the first was made.

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services (Cont'd)

8.10.1 Per Call/Periodic BNA and Data Gathering Service (Cont'd)

Any customer, provided Per Call/Periodic BNA or DGS pursuant to this tariff, agrees to abide by all applicable rules, decisions, orders, statutes and laws concerning the disclosure of published and nonpublished telephone numbers, and further agrees to use the information contained therein only for the purpose of billing for services provided to their end users.

In no case shall any customer or authorized billing and collection agent of a customer disclose the billing name and address information of any subscriber to any third party, except that a customer may disclose BNA/DGS information to its authorized billing and collection agent or to governmental law enforcement agencies.

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services (Cont'd)

8.10.2 End User Validation List

End User Validation Lists provide for the disclosure of end user billing name and address information only, that is available from the Telephone Company's records, to a Telecommunications Service Provider (customer), for purposes other than billing, and in compliance with the conditions set forth in Part 64.1201(c)(1) of the FCC's Rules and Regulations. In addition, End User Validation List Service is offered subject to the following:

Standard End User Validation Lists will be provided in three (3) files, business, coin (semi-public and public paystations) and residence. Nonlisted/nonpublished information will be excluded, with the exception of nonlisted public paystations. The lists may be ordered on a national, multi-state or state level basis, at the option of the customer, for any of the Telephone Company's jurisdictions subject to this tariff, unless prohibited by federal regulation or federal statute. Rates for the standard End User Validation List are set forth under 8.10.3(C).

Per calendar year, the customer may request up to two (2) lists per state for business, coin, and residence listings.

A standard format will be established by the Telephone Company. Requests for special list sorts will be limited to an end user list separating those that are presubscribed to the requesting customer, and/or those that are not. The rate, per record, applicable to special sorts is set forth under 8.10.3(C).

Each request shall be treated as a new request. Requests for updates from previous lists will not be provided.

The customer shall have fifteen (15) business days from the date of delivery of a list to request any investigation of issues arising from the provision of the list.

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services (Cont'd)

8.10.2 End User Validation List (Cont'd)

End User Validation Lists will normally be provided to the customer within thirty calendar days after receipt of a request and within ten (10) business days of extraction, or at an interval mutually agreed upon. The administrative fee set forth under 8.10.3(C) applies per request, whether ordered on a per state, multi-state, or national level.

In no case shall any customer or authorized billing and collection agent of a customer disclose the billing name and address information of any subscriber to any third party, except that a customer may disclose BNA/DGS information to its authorized billing and collection agent or to governmental law enforcement agencies.

8. Miscellaneous Services (Cont'd)

8.10 Billing Name and Address Services (Cont'd)

8.10.3 Rates and Charges

(A) Per Call/Periodic BNA

	Billing Name and Address Found/Each	Billing Name and Address Not Found/Each	Processing Fee* Paper Report, Electronic Transmission, or Magnetic Tape/ Each State
(USOC)	(BNYFX)	(BNYNX)	(BNYMX)
	$.22	$.22	$27.25

(B) Data Gathering Service

	Per Record Accessed	Processing Fee ** Paper Report, Electronic Transmission, or Magnetic Tape/Each State
(USOC)	(D7GPR)	(D7G)
	$.18	$75.00

(C) End User Validation List

	Standard Sort, Per Record Provided	Administrative Fee Paper Report, Electronic Transmission or Magnetic Tape/ Per Request	Special Sort, Per Record Provided
(USOC)	(BVY1X)	(BVY)	(BVY2X)
	$.034	$78.00	$.054

* Applies once per calendar year for BNA processing done within that calendar year.

** Applies once per calendar year for DGS processing done within that calendar year.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System

(A) Description of the Service

The TSP System is a service that provides for the priority provisioning and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services. The TSP System applies only to NSEP services, includes both Switched and Special FIA and provides the Telephone Company with a guide to the sequence in which services are to be provisioned and/or restored.

The Telephone Company currently has Special Access circuits classified as RP (Restoration Priority). These facilities were offered under Part 64.401, Subpart D, Appendix A of the FCC Rules and Regulations prior to the revisions released November 17, 1988 under GEN. Docket No. 87-505 (FCC 88-341). These facilities will maintain their RP designation and priority treatment until either converted by the customer to the TSP System, or until March 10, 1993, whichever occurs first.

All FIA that can be identified by a unique circuit identifier can be provisioned for NSEP service by the Telephone Company.

The rates and charges associated with a customer subscribing to the TSP System are as specified in Section 8.11(G).

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(B) Obtaining TSP System Service

The Executive Office of the President through the TSP Program Office, is empowered with the authority to receive, evaluate and process requests for NSEP services. The TSP Program Office makes the priority level assignments and issues the TSP authorization code reflecting the priority assignment associated with a request. The customer provides the TSP authorization code, in addition to all the other details necessary to complete the order (ASR) to the Telephone Company to obtain TSP System service.

The TSP authorization code, assigned on a per ASR basis, consists of a 12-character field consisting of a nine-character control ID followed by a dash and a two-character field specifying the priority level assignment. Its structure is as follows:

TSPxxxxxn-yy

The "x"s represent a sequence of numbers unique to each TSP authorization code and the "n" is a one character alphanumeric check digit. The first "y" contains the provisioning priority level assignment and the second "y" contains the restoration priority level assignment.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(C) Provisioning Priority

If the customer requires service within a shorter time interval than the Telephone Company can provide and the requested service qualifies for NSEP, the customer may elect to invoke NSEP Treatment and obtain the appropriate provisioning priority assignment from the TSP Program Office. Acceptable assignment code values are: E, 1, 2, 3, 4, 5 or 0.

The assignment of the value "E" denotes Emergency Provisioning and implies the service has the most critical provisioning requirements and the Telephone Company will respond accordingly. The Telephone Company will take immediate action to provide the requested service at the earliest possible date. Rates and charges associated with "E" provisioning are as specified in Section 8.11(G)(2)(a).

The assignment values of 1, 2, 3, 4 and 5 are treated as essential service priorities and the Company will adjust its available resources to meet the customer's requested due date. Rates and charges associated with invoking this priority treatment are specified in Section 8.11(G)(2)(b). The value "0" implies no provisioning priority.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(D) Restoration Priority

A TSP authorization code for restoration priority classifies the service as being among the nation's most important NSEP telecommunications services. The Company will restore these services before services without restoration priority assignments in the order of priority assignments. Acceptable values are: 1, 2, 3, 4, 5 or 0 with the value "1" being the highest priority.

When the Company recognizes a TSP as being out of service, unusable or receives a trouble report, available resources will be dispatched to restore the service as quickly as practicable. A priority value of 1, 2 or 3 requires dispatch outside normal business hours if necessary to restore the service. A priority value of 4 or 5 only requires dispatch outside of normal business hours if the next business day is more than 24 hours away. If the value "0" has been assigned, then no restoration priority is applicable to this service.

The minimum period of service is one month.

(E) Obligations of the Customer

(1) In all instances, the customer is responsible for obtaining the appropriate TSP authorization code and providing that code to the Telephone Company.

(2) The TSP System service customer must also be the customer for the FIA with which TSP service is associated. Only the customer or its authorized agent as indicated in a letter of agency on file with the Telephone Company is allowed to order TSP System service.

(3) All points of a multipoint service configuration must have the same restoration priority assignment and must satisfy the requirements of that assignment.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(E) Obligations of the Customer (Cont'd)

(4) In obtaining TSP System service, the customer consents to the release of certain information by the Telephone Company to the federal government in order to maintain and administer the TSP System. Such information includes: the customer's name, telephone number and mailing address, the TSP authorization code and the circuit or service ID number associated with the NSEP service.

(5) The Telephone Company will attempt to notify the customer of expected charges. The customer when invoking NSEP treatment, recognizes that quoting charges and obtaining permission beforehand may not be practicable and may cause unnecessary delays and, as a result, grants the Telephone Company the right to quote and bill charges after provisioning of the service.

(6) During certain emergencies, the customer may request TSP assignments verbally and the Telephone Company will accept such verbal notification. The customer must submit a written order (ASR) to the Telephone Company within two working days following the verbal request. If the written order (ASR) is not received within two working days, all applicable rates and charges accumulated to date to provision TSP System service, become immediately due and payable and the requested TSP priority is revoked.

(7) The customer must request and justify revalidation of all priority level assignments at least every three years.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(E) Obligations of the Customer (Cont'd)

(8) Additionally, the NCS Manual 3-1-1, "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service User Manual", dated July 9, 1990, prescribes specific conditions which warrant NSEP treatment and related procedures.

(F) Obligations of the Telephone Company

(1) The Telephone Company will allocate resources to ensure best efforts to provide NSEP services by the time required.

(2) The Telephone Company will work TSP System services in the order of their priority level assignments. The priority sequence is as follows:

- Restore NSEP services assigned restoration priority 1
- Provision Emergency (E) NSEP services
- Restore NSEP services assigned restoration priority 2, 3, 4 or 5
- Provision NSEP services assigned provisioning priority 1, 2, 3, 4 or 5

(3) The Telephone Company will work cooperatively with other providers of NSEP service when only a portion is provided by the Telephone Company to ensure "end-to-end" service.

(4) Additionally, TSP System service will be provided in accordance with the guidelines set forth in NCS Handbook 3-1-2, "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" dated July 9, 1990.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(F) Obligations of the Telephone Company (Cont'd)

(4) Additionally, TSP System service will be provided in accordance with the guidelines set forth in NCS Handbook 3-1-2, "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" dated July 9, 1990.

(G) Rates and Charges

The following rates and charges are in addition to all other rates and charges that may apply for other services offered under this tariff which operate in conjunction with the TSP System.

(1) Establishment of TSP System Service

The establishment of TSP System service charge is a nonrecurring charge (NRC) specified in Section 8.11(G)(4) which applies when a FIA is ordered with provisioning and/or restoration priority. If both are ordered at the same time, only one NRC is applicable. The NRC is also applicable for orders changing priority levels.

(2) Provisioning Priority

There are two basic levels of priority provisioning, Emergency (provisioning priority "E") and Essential (provisioning priority 1, 2, 3, 4 or 5).

(a) Emergency Provisioning

The Telephone Company will take immediate action to provide the requested service at the earliest possible date. The rates and charges will apply as set forth in the Special Construction Section of the Telephone Company's Interstate Access Tariff.

8. Miscellaneous Services (Cont'd)

8.11 Telecommunications Service Priority (TSP) System (Cont'd)

(G) Rates and Charges (Cont'd)

(2) Provisioning Priority (Cont'd)

(b) Essential Provisioning

The Telephone Company will adjust its available resources to meet the customer's requested due date. The rates and charges will apply as set forth in Section 5.3.1(D).

(3) Restoration Priority

Restoration Priority is a monthly rate per circuit for the ongoing administration and maintenance of the TSP System. This monthly rate only applies when a restoration priority code (1, 2, 3, 4 or 5) is specified in position 12 of the authorization code. The rates are specified in Section 8.11(G)(5).

(4) Establishment of TSP System Service Charge

Nonrecurring Charge per Circuit	$ 14.50

(5) Restoration Priority Rates

Monthly Rate per Circuit	$ 4.90

9. Interface Groups, Transmission Specifications and Channel Codes

9.1 Local Transport Interface Groups

Ten Interface Groups are provided for terminating the Local Transport at the customer's premises. Each Interface Group provides a specified premises interface code (e.g., two-wire, four-wire, DS1, etc.). At the option of the customer and where transmission facilities permit, the individual transmission path between the customer's premises and the first point of switching may be provided with optional features as set forth in 6.3.1 preceding.

As a result of the customer's access order and the type of Telephone Company transport facilities serving the customer's premises, the need for signaling conversions or two-wire to four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Telephone Company equipment be placed at the customer's premises. For example, if a voice frequency interface is ordered by the customer and the Telephone Company facilities serving the customers premises are digital, then Telephone Company channel bank equipment must be placed at the customer's premises in order to provide the voice frequency interface ordered by the customer.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

Interface Group 1 is provided with Type C Transmission Specifications, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, depending on the Feature Group or Basic Serving Arrangement and whether the Access Service is routed directly or through an access tandem. All Interface Groups are provided with Data Transmission Parameters.

Only certain premises interfaces are available at the customer's premises. The premises interfaces codes associated with the Interface Groups may vary among Feature Groups and Basic Serving Arrangements. The various premises interfaces codes which are available with the Interface Groups, and the Feature Groups and Basic Serving Arrangements with which they may be used, are in 9.1.11.

For each of the ten Interface Groups described following, the transmission path between the point of termination at the customer's premises and the first point of switching may be comprised of any form or configuration of plant and equipment capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of 300 to 3000 Hz.

9.1.1 Interface Group 1 (USOC TPP1X)

Interface Group 1 provides a two-wire voice frequency transmission path at the point of termination at the customer's premises. Interface Group 1 is not provided in association with FGC, FGD, BSA-C and BSA-D when the first point of switching is an access tandem. In addition, Interface Group 1 is not provided in association with FGB, FGC, FGD, BSA-B, BSA-C or BSA-D when the first point of switching can only provide four-wire terminations.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.1 Interface Group 1 (USOC TTP1X) (Cont'd)

The interface is provided with loop supervisory signaling. When the interface is associated with FGA or BSA-A, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC, FGD, BSA-B, BSA-C or BSA-D such signaling will be reverse battery signaling. When FGB, FGC, FGD, BSA-B, BSA-C or BSA-D access service is associated with a two-way calling interface, E&M signaling shall be used.

9.1.2 Interface Group 2 (USOC TTP2X)

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer's premises. The interface is provided with loop supervisory signaling. When the interface is associated with FGA or BSA-A, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC, FGD, BSA-B, BSA-C or BSA-D, such signaling, except for two-way calling which is E&M signaling, will be reverse battery signaling.

9.1.3 Interface Group 3 (USOC TPP3X)

Interface group 3 provides group level analog transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals between the frequencies of 60 to 180 kHz, with the capability to channelize up to 12 voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Group are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex equipment to derive 12 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz.

The interface is provided with SF supervisory signaling for each individual transmission channel.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.4 Interface Group 4 (USOC TPP4X)

Interface group 4 provides supergroup level analog transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals between the frequencies of 312 to 552 kHz, with the capability to channelize up to 60 voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Group are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex and channel bank equipment to derive 60 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz.

The interface is provided with SF supervisory signaling for each individual transmission channel.

9.1.5 Interface Group 5 (USOC TPP5X)

Interface Group 5 provides mastergroup level analog transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals between the frequencies of 564 to 3084 kHz, with the capability to channelize up to 600 voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Group are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex and channel bank equipment to derive 600 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz.

The interface is provided with SF supervisory signaling for each individual transmission channel.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.6 Interface Group 6 (USOC TPP6X)

Interface Group 6 provides DS1 level digital transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals at a nominal 1.544 Mbps, with the capability to channelize up to 24 voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive 24 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide, at the first point of switching, a DS1 signal in D3/D4 format.

The interface is provided with bit stream supervisory signaling for each individual transmission channel.

9.1.7 Interface Group 7 (USOC TPP7X)

Interface Group 7 provides DS1C level digital transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals at a nominal 3.152 Mbps, with the capability to channelize up to 48 voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive up to 48 voice frequency transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide, at the first point of switching, DS1 signals in D3/D4 format.

The interface is provided with bit stream supervisory signaling for each individual transmission channel.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1. Local Transport Interface Groups (Cont'd)

9.1.8 Interface Group 8 (USOC TPP8X)

Interface Group 8 provides DS2 level digital transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals at a nominal 6.312 Mbps, with the capability to channelize up to 96 voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment in its office to derive up to 96 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching, or analog switching with digital carrier terminations is provided, the Telephone Company will provide, at the first point of switching, DS1 signals in D3/D4 format.

The interface is provided with bit stream supervisory signaling for each individual transmission channel.

9.1.9 Interface Group 9 (USOC TPP9X)

Interface Group 9 provides DS3 level digital transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals at a nominal 44.736 Mbps, with the capability to channelize up to 672 voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive up to 672 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching, or analog switching with digital carrier terminations is provided, the Telephone Company will provide, at the first point of switching, DS1 signals in D3/D4 format.

The interface is provided with bit stream supervisory signaling for each individual transmission channel.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.10 Interface Group 10 (USOC TPPAX)

Interface Group 10 provides DS4 level digital transmission at the point of termination at the customer's premises. The interface is capable of transmitting electrical signals at a nominal 274.176 Mbps, with the capability to channelize up to 4032 voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive up to 4032 transmission paths with a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide, at the first point of switching, DS1 signals in D3/D4 format.

The interface is provided with bit stream supervisory signaling for each individual transmission channel.

9.1.11 Available Premises Interface Codes

Following is a matrix showing which premises interface codes are available for each Interface Group as a function of the Telephone Company switch supervisory signaling and Feature Group. For explanations of these codes, see the Glossary of Channel Interface Codes in 9.3.1 following.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.11 Available Premises Interface Codes

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
1	LO	2LS2	X			
	LO	2LS3	X			
	GO	2GS2	X			
	GO	2GS3	X			
	LO, GO	2DX3	X			
	LO, GO	4EA3-E	X			
	LO, GO	4EA3-M	X			
	LO, GO	6EB3-E	X			
	LO, GO	6EB3-M	X			
	RV, EA, EB, EC	2DX3		X	X	X
	RV, EA, EB, E	4EA3-E		X	X	X
	RV, EA, EB, EC	4EA3-M		X	X	X
	RV, EA, EB, EC	6EB3-E		X	X	X
	RV, EA, EB, EC	6EB3-M		X	X	X
	EA, EB, EC	6EC3			X	X
	RV	2RV3-O		X	X	X
	RV	2RV3-T		X	X	X
2	LO, GO	4SF2	X			
	LO, GO	4SF3	X			
	LO	4LS2	X			
	LO	4LS3	X			
	LO	6LS2	X			
	GO	4GS2	X			
	GO	4GS3	X			
	GO	6GS2	X			
	LO, GO	4DX2	X			
	LO, GO	4DX3	X			
	LO, GO	6EA2-E	X			
	LO, GO	6EA2-M	X			
	LO, GO	8EB2-E	X			
	LO, GO	8EB2-M	X			
	LO, GO	6EX2-B	X			

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.11 Available Premises Interface Codes Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
2 (Cont'd)						
	RV, EA, EB, EC	4SF2		X	X	X
	RV, EA, EB, EC	4SF3		X		
	RV, EA, EB, EC	4DX2		X	X	X
	RV, EA, EB, EC	4DX3		X	X	X
	RV, EA, EB, EC	6DX2			X	
	RV, EA, EB, EC	6EA2-E		X	X	X
	RV, EA, EB, EC	6EA2-M		X	X	X
	RV, EA, EB, EC	8EB2-E		X	X	X
	RV, EA, EB, EC	8EB2-M		X	X	X
	EA, EB, EC	8EC2-M			X	X
	RV	4RV2-O		X	X	X
	RV	4RV2-T		X	X	X
	RV	4RV3-O		X	X	
	RV	4RV3-T		X	X	
3	LO, GO	4AH5-B	X			
	RV, EA, EB, EC	4AH5-B		X	X	X
4	LO, GO	4AH6-C	X			
	RV, EA, EB, EC	4AH6-C		X	X	X
5	LO, GO	4AH6-D	X			
	RV, EA, EB, EC	4AH6-D		X	X	X
6	LO, GO	4DS9-15	X			
	LO, GO	4DS9-15L	X			
	RV, EA, EB, EC	4DS9-15		X	X	X
	RV, EA, EB, EC	4DS9-15L		X	X	X
7	LO, GO	4DS9-31	X			
	RV, EA, EB, EC	4DS9-32		X	X	X
	LO, GO	4DS9-31L	X			
	RV, EA, EB, EC	4DS9-31L		X	X	X

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.1 Local Transport Interface Groups (Cont'd)

9.1.11 Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
8	LO, GO	4DSO-63	X			
	LO, GO	4DSO-63L	X			
	RV, EA, EB, EC	4DSO-63		X	X	X
	RV, EA, EB, EC	4DSO-63L		X	X	X
9	LO, GO	4DS6-44	X			
	LO, GO	4DS6-44L	X			
	RV, EA, EB, EC	4DS6-44		X	X	X
	RV, EA, EB, EC	4DS6-44L		X	X	X
10	LO, GO	4DS6-27	X			
	LO, GO	4DS6-27L	X			
	RV, EA, EB, EC	4DS6-27		X	X	X
	RV, EA, EB, EC	4DS6-27L		X	X	X

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service

The Telephone Company will maintain existing transmission specifications on functioning service configurations installed prior to the effective date of this tariff except that service configurations having performance specifications exceeding the standards listed in this provision will be maintained at performance levels specified in this tariff.

The transmission specifications contained in this Section are immediate action limits. Acceptance limits are set forth in Technical Reference TR-NPL-000334. This Technical Reference also provides the basis for determining Switched Access Service maintenance limits.

9.2.1 Standard Transmission Specifications

Following are descriptions of the three Standard Transmission Specifications available with Switched Access Services. The specific applications in terms of the Switched Access Arrangements and Interface Groups with which the Switched Access Arrangement Standard Transmission Specifications are provided are set forth in 6.2 preceding.

(A) Type A Transmission Specifications

Type A Transmission Specifications is provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is 2.0 dB

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(A) Type A Transmission Specifications (Cont'd)

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to the loss 1004 Hz is -1.0 dB to +3.0 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

Route Miles	C-Message Noise
less than 50	32 dBrnCO
51 to 100	34 dBrnCO
101 to 200	37 dBrnCO
201 to 400	40 dBrnCO
401 to 1000	42 dBrnCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone, is less than or equal to 45 dBrnCO.

(5) Echo Control

Echo Control, identified as Equal Level Echo Path Loss, and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(A) Type A Transmission Specifications (Cont'd)

(5) Echo Control (Cont'd)

	Echo Return Loss	Singing Return Loss
POT to Access Tandem	21 dB	14 dB
POT to End Office		
- Direct	N/A	N/A
-Via Access Tandem	16 dB	11 dB

(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB

(B) Type B Transmission Specifications

Type B Transmission Specifications is provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is 2.5 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion is the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +4.0 dB.

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(B) Type B Transmission Specifications (Cont'd)

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

Route Miles	C-Message Noise* Type B1	C-Message Noise* Type B2
less than 50	32 dBrnCO	35 dBrnCO
51 to 100	33 dBrnCO	37 dBrnCO
101 to 200	35 dBrnCO	40 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone is less than or equal to 47 dBrnCO.

(5) Echo Control

Echo Control, identified as Impedance Balance for FGA, FGB, BSA-A and BSA-B and Equal Level Echo Path Loss for FGC, FGD, BSA-C and BSA-D, and expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. The ERL and SRL also differ by Switched Access Service, type of termination, and type of transmission path. They are greater than or equal to the following:

* For FGC, FGD, BSA-C and BSA-D only Type B2 will be provided. For FGA, FGB, BSA-A and BSA-B, Type B1 or B2 will be provided as set forth in Technical Reference TR-NPL-000334.

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(B) Type B Transmission Specifications (Cont'd)

(5) Echo Control (Cont'd)

	Echo Return Loss	Singing Return Loss
POT to Access Tandem		
- Terminated in 4-Wire trunk	21 dB	14 dB
POT to End Office		
- Terminated in 2-Wire trunk	16 dB	11 dB
POT to End Office		
- Direct	16 dB	11 dB
- Via Access Tandem		
For FGB and BSA-B access	8 dB	4 dB
For FGC and BSA-C access (Effective 4-Wire transmission path at end office)	16 dB	11 dB
For FGC and BSA-C access (Effective 2-Wire transmission path at end office)	13 dB	6 dB

(6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Singing return Loss, on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(C) Type C Transmission Specifications

Type C Transmission Specifications is provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is 3.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +5.5 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

	C-Message Noise*	
Route Miles	Type B1	Type B2
less than 50	32 dBrnCO	38 dBrnCO
51 to 100	33 dBrnCO	39 dBrnCO
101 to 200	35 dBrnCO	41 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

* For FGC, FGD, BSA-C and BSA-D Type C2 will be provided. For FGA, FGB, BSA-A and BSA-B, Type C1 or C2 will be provided set forth in Technical Reference TR-NPL-000334.

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.1 Standard Transmission Specifications (Cont'd)

(C) Type C Transmission Specifications (Cont'd)

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone is less than or equal to 47 dBrnCO.

(5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	Echo Return Loss	Singing Return Loss
POT to Access Tandem	13 dB	6 dB
POT to End Office		
- Direct	13 dB	6 dB
- Via Access Tandem (for FGB and BSA-B only)	8 dB	4 dB

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.2 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Switched Access Service arrangements. The specific applications in terms of the Feature Groups with which they are provided are set forth in 6.2 preceding. In addition, the Combined Access Service Arrangement is provided with Data Transmission Parameters. Following are descriptions of each parameter.

(A) Data Transmission Parameters Type DA

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 33 dB.

(2) Envelope Delay Distortion

The maximum envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz	
less than 30 route miles	500 microseconds
equal to or greater than 30 route miles	900 microseconds
1004 to 2404 Hz	
less than 50 route miles	200 microseconds
equal to or greater than 50 route miles	400 microseconds

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.2 Data Transmission Parameters (Cont'd)

(A) Data Transmission Parameters Type DA (Cont'd)

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 65 dBrnCO threshold in 15 minutes is no more than 15 counts.

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	33 dB
Third Order (R3)	37 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5 peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.2 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB

(1) Signal to C-Notched Noise Ratio

The signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz	
less than 50 route miles	800 microseconds
equal to or greater than 50 route miles	1000 microseconds

1004 to 2404 Hz	
less than 50 route miles	320 microseconds
equal to or greater than 50 route miles	500 microseconds

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dBrnCO threshold in 15 minutes is no more than 15 counts.

9. Interface Groups, Transmission Specifications, and Channel Codes (Cont'd)

9.2 Transmission Specifications for Switched Access Service (Cont'd)

9.2.2 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB (Cont'd)

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	31 dB
Third Order (R3)	34 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 7 peak-to-peak.

(6) Frequency Shift

The maximum frequency Shift does not exceed -2 to +2 Hz.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes

This section explains the Channel Interface codes and Network Channel codes that the customer must specify when ordering Special Access Service. Included is an example which explains the specific characters of the code, a glossary of Channel Interface codes, impedance levels, Network Channel codes and compatible Channel Interfaces.

Example: If the customer specifies a NT Network Channel Code and a 2DS8-3 Channel Interface at the customer's premises, the following is being requested:

NT = Metallic Circuit with a Predefined Technical Specification Package (1)
2 = Number of physical wires at customer premises
DS = Facility interface for direct current or voltage
8 = Variable impedance level
3 = Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options

Code		Option	Definition
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)
CT			Centrex Tie Trunk Termination
DA	-		data stream in VF frequency band at customer' send 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	Telephone 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

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code	Option	Definition
DS	-	digital hierarchy interface
	- 15	1.544 Mbps (DS1) format per PUB 41451 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 41451
	- 15K	1.544 Mbps format per PUB 41451 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
	- 56	56.0 kbps
	- 96	9.6 kbps
	- A	1.544 Mbps format per PUB 41451
	- B	1.544 Mbps format per PUB 41451 plus D4
	- C	1.544 Mbps format per PUB 41451 plus extended framing format

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code		Option	Definition
DX	-		duplex signaling interface at customer's point of termination
DY	-		duplex signaling interface at customer's end user's point of termination
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 (dialtone, etc.) functions.
EX	-	B	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
GO	-		ground start loop signaling - open end function by customer or customer's end user.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code	Option	Definition
GS	-	ground start loop signaling - closed end function by customer or customer's end user
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 Telephone 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*

* Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code	Option	Definition
RV -	OT	reverse battery signaling, one way operation, originate by customer reverse battery signaling, one way operation, terminate function by customer or customer's end user
SF -		single frequency signaling with VF band at either customer POT or customer's end user POT
TF -		telephotograph interface
TT -		telegraph/teletypewriter interface at either customer POT or customer's end user POT
-	2	20.0 milliamperes
-	3	3.0 milliamperes
-	6	62.5 milliamperes
TV -		television interface
-	1	combined (diplexed) video and one audio signal
-	2	combined (diplexed) video and two audio signals
-	5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two wire
-	15	video plus one (or two) audio 15 kHz signal(s)
WA -		wideband bandwidth interface at customer's end user
POT		
-	1	limited bandwidth
-	2	nominal passband from 29000 to 44000 Hz

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code	Option	Definition
WB -		wideband data interface at customer POT
-	18S	18.75 kbps, synchronous
-	19A	up to 19.2 kbps asynchronous
-	19S	19.2 kbps synchronous
-	23A	up to 230.4 kbps, asynchronous
-	23S	230.4 kbps, synchronous
-	40S	40.8 kbps, synchronous
-	50A	up to 50.0 kbps, asynchronous
-	50S	50.0 kbps synchronous
WC -		wideband data interface at customer's end user
-	18	POT 18.75 kbps, synchronous
-	19	for 12-wire interface: 19.2 kbps, synchronous for 10-wire interface: up to 19.2 kbps, 23 asynchronous up to 230.4 kbps, asynchronous
-	23S	230.4 kbps, synchronous
-	40	40.8 kbps, synchronous
-	50	for 12-wire interface: 50.0 kbps, synchronous for 10-wire interface: up to 50.0 kbps, asyn-

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.1 Glossary of Channel Interface Codes and Options (Cont'd)

Code	Option	Definition
WD -		chronous wideband bandwidth interface at customer POT
-	1	nominal passband from 300 to 18000 Hz
-	2	nominal passband from 28000 to 44000 Hz
-	3	nominal passband from 29000 to 44000 Hz

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.2 Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9

\+ For those interface codes with a 4-wire transmission path at the customer's POT, rather than a 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.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.3 Digital Hierarchy Channel Interface Codes (4DS)

Customers selecting the multiplexed four-wire DSX-1 or higher facility interface option at the customer designated premises will be requested to provide subsequent system and channel assignment data. The various digital bit rates in the digital hierarchy employ the channel interface code 4DS8, 4DS9, 4DS0 or 4DS6 plus the speed options indicated below:

Interface Code and Speed Option	Nominal Bit Rate (Mbps)	Digital Hierarchy Level
4DS8-15	1.544	DS1
4DS9-31	3.152	DS1C
4DS0-63	6.312	DS2
4DS6-44	44.736	DS3
4DS6-27	274.176	DS4

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.4 Service Designator/Network Channel Code Conversion Table

The purpose of this table is to show the relationship between the service designator codes (e.g. VGC, MT2, etc.) and the network channel codes that are used for various administrative purposes.

Service Designator Code	Network Channel Code
MTC	MQ
MT1	NT
MT2	NU
MT3	NV
TGC	NQ
TG1	NW
TG2	NY
VGC	LQ
VG1	LB
VG2	LC
VG3	LD
VG4	LE
VG5	LF
VG6	LG
VG7	LH
VG8	LJ
VG9	LK
VG1	LN
VG1	LP
VG12	LR
APC	PQ
AP1	PE
AP2	PF
AP3	PJ
AP4	PK

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.4 Service Designator/Network Channel Code Conversion Table (Cont'd)

Service Designator Code	Network Channel Code
TVC	TQ
TV1	TV
TV2	TW
WA1	WJ
WA1T	WQ
WA2	WL
WA2A	WR
WA3	WN
WA4	WP
WD1	WB
WD2	WE
WD3	WF
DA1	XA
DA2	XB
DA3	XG
DA4	XH
HCO	HS
HC1	HC
HC1C	HD
HC2	HE
HC3	HF
HC4	HG

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces

The following tables show the channel interface codes (CIs) which are compatible:

(A) Metallic

Compatible CIs		Compatible CIs	
4AH5-B	2DC8-1	4AH6-D	2DC8-2
4AH5-B	24C8-2	2DC8-1	2DC8-2
4AH6-C	2DC8-1	2DC8-3	2DC8-3
4AH6-C	2DC8-2	4DS9-*	2DC8-1
4AH6-D	2DC8-1	4DS9-*	2DC8-2

(B) Telegraph Grade

Compatible CIs	Compatible CIs	Compatible CIs
4AH5-B 10IA8	4AH6-D 4TT2-6	4DB2-43+4TT2-2
4AH5-B 2TT2-2	2DB2-10 10IA8	4DS9-*10IA8
4AH5-B 4TT2-2	2DB2-10 2TT2-2	4DS9-*2TT2-2
4AH5-B 2TT2-6	2DB2-10 4TT2-2	4DS9-*4TT2-2
4AH5-B 4TT2-6	2DB2-43+10IA8	4DS9-*2TT2-6
4AH6-C 10IA8	2DB2-43+2TT2-2	4DS9-*4TT2-6
4AH6-C 2TT2-2	2DB2-43+2TT2-6	2TT2-22TT2-2
4AH6-C 4TT2-2	2DB2-43+4TT2-2	2TT2-32TT2-2
4AH6-C 2TT2-6	4DB2-10 1OIA8	2TT2-34TT2-2
4AH6-C 4TT2-6	4DB2-10 2TT2-2	2TT2-62TT2-6
4AH6-D 10IA8	4DB2-10 4TT2-2	2TT2-64TT2-2
4AH6-D 2TT2-2	4DB2-43+10IA8	4TT2-24TT2-2
4AH6-D 4TT2-2	4DB2-43+2TT2-6	4TT2-62TT2-6
4AH6-D 2TT2-6		

* See 7.5.3 preceding for explanation.

\+ Supplemental Channel Assignment information required.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade

Compatible CIs	Compatible CIs	Compatible CIs
4AB2 4AB2		
4AB2 4AC2	4AH5-B 6DA2	4AH6-D 2DY2
4AB3 4AC2	4AH5-B 4DA2	4AH6-C 9DY2
4AB2 2AC2	4AH5-B 2DA2	4AHG-C 9DY3
4AB3 2AC2		4AH6-C 6DY2
2AB2 2AC2	4AH6-D 4DE2	4AH6-C 6DY3
2AB3 2AC2	4AH6-C 4DE2	4AH6-C 4DY2
	4AH5-B 4DE2	4AH6-C 2DY2
4AB2 4SF2	4AH6-D 2DE2	4AH5-B 9DY2
4AB3 4SF2	4AH6-C 2DE2	4AH5-B 9DY3
	4AH5-B 2DE2	4AH5-B 6DY2
4AH6-D 4AC2		4AH5-B 6DY3
4AH6-D 2AC2	4AH6-D 4DX3	4AH5-B 4DY2
4AH6-C 4AC2	4AH6-C 4DX3	4AH5-B 2DY2
4AH6-C 2AC2	4AH5-B 4DX3	
4AH5-B 4AC2	4AH6-D 4DX2	4AH6-D 9EA2
4AH5-B 2AC2	4AH6-C 4DX2	4AH6-D 9EA3
	4AH5-B 4DX2	4AH6-D 6EA2-E
4AH6-D 2CT3		4AH6-D 6EA2-M
		4AH6-D 4EA2-E
4AH6-C 2CT3		4AH6-D 4EA2-M
4AH5-B 2CT3		4AH6-C 9EA2
4AH6-D 6DA2		4AJ7-C 9EA3
4AH6-D 4DA2	4AH6-D 9DY2	4AH6-C 6EA2-E
4AH6-D 2DA2	4AH6-D 9DY3	
4AH6-C 6DA2	4AH6-D 6DY2	
4AH6-C 4DA2	4AH6-D 6DY3	
4AH6-C 2DA2	4AH6-D 4DY2	

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
4AH6-C 6EA2-M	4AH6-D 6GS2	4AH6-D 2LO2
4AH6-C 4EA2-E	4AH6-D 4GS2	4AH6-C 2LO3
4AH6-C 4EA2-M	4AH6-D 2GS3	4AH6-C 2LO2
4AH5-B 9EA2	4AH6-D 2GS2	4AH5-B 2LO3
4AH5-B 9EA3	4AH6-C 6GS2	4AH5-B 2LO2
4AH5-B 6EA2-E	4AH6-C 4GS2	
4AH5-B 6EA2-M	4AH6-C 2GS3	4AH6-B 4LR2
4AH5-B 4EA2-E	4AH6-C 2GS2	4AH6-D 2LR2
4AH5-B 4EA2-M	4AH5-B 6GS2	4AH6-C 4LR2
	4AH5-B 4GS2	4AH6-C 2LR2
4AH6-D 8EB2-E	4AH5-B 2GS3	4AH5-B 4LR2
4AH6-D 8EB2-M	4AH5-B 2GS2	4AH5-B 2LR2
4AH6-D 6EB2-E		
4AH6-D 6EB2-M	4AH6-D 2LA2	4AH6-D 6LS2
4AH6-C 8EB2-E	4AH6-C 2LA2	4AH6-D 4LS2
4AH6-C 8EB2-M	4AH5-B 2LA2	4AH6-D 2LS2
4AH6-C 6EB2-E		4AH6-D 2LS3
4AH6-C 6EB2-M	4AH6-D 2LB2	4AH6-C 6LS2
4AH5-B 8EB2-E	4AHG-C 2LB2	4AH6-C 4LS2
4AH5-B 8EB2-M	4AH5-B 2LB2	4AH6-C 2LS2
4AH5-B 6EB2-E		4AH6-C 2LS3
4AH5-B 6EB2-M	4AH6-D 2LC2	4AH5-B 6LS2
	4AH6-C 2LC2	4AH5-B 4LS2
4AH6-D 2GO2	4AH5-B 2LC2	4AH5-B 2LS2
4AH6-D 2GO3		
4AH6-C 2GO2		
4AH6-C 2GO2		4AH5-B 2LS3
4AH5-B 2GO2	4AH6-D 2LO3	
4AH5-B 2GO3		

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
4AH6-D 4NO2	4AH6-D 4TF2	2CT3 8EB2-E
4AH6-D 2NO2	4AJ7-D 2TF2	2CT3 8EB2-M
4AH6-C 4NO2	4AH6-C 4TF2	
4AH6-C 2NO2	4AH6-C 2TF2	2CT3 6482-E
4AH5-B 4NO2	4AH5-B 4TF2	2CT3 6EB2-M
4AH5-B 2NO2	4AH5-B 2TF2	
		2CT3 6EB3-E
		2CT3 4DS9-*
		2CT3 8EC2
		2CT3 6DX2
	2CT3 4DX2	2CT3 4SF2
	2CTS 4DX3	2CT3 4SF3
4AH6-D 4PR2	2CT3 9DY3	6DA2 6DA2
4AH6-D 2PR2	2CT3 6DY3	6DA2 4DA2
4AH6-C 4PR2	2CT3 9DT2	4DA2 4DA2
4AH6-C 2PR2	2CT3 6DY2	
4AH5-B 4PR2	2CT3 4DY3	4DB2 6DA2
4AH5-B 2PR2	2CT3 2DY2	4DB2 4DA2
		4DB2 2DA2
4AH6-D 4RV2-T	2CT3 9EA3	2DB3 2DA2
4AH6-D 2RV2-T	2CT3 9EA2	2DB2 2DA2
4AH6-C 4RV2-T	2CT3 6EA2-E	4DB2 4DB2
4AH6-C 2RV2-T	2CT3 6EA2-M	4DB2 4NO2
4AH5-B 4TV2-T	2CT3 4EA2-E	4DB2 2NO2
4AH5-B 2RV2-T	2CT3 4EA2-M	2DB2 2NO2
4AH6-D 4SF2		4DB2 4PR2
4AH6-C 4SF2		4DB2 2PR2
4AH5-B 4SF2		2DB2 2PR2
4AH6-D 4SF3		
4AH6-C 4SF3		
4AH5-B 4SF3		

- See 9.3.3 preceding for explanation.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs		Compatible CIs	
4DD3	4DE2	4DS8-*	9DY3
4DD3	2DE2	4DS8-*	9DY2
		4DS8-*	6DY3
4DS8-*	4AC2	4DS8-*	6DY2
4DS8-*	2AC2	4DS8-*	4DY2
		4DS8-*	2DY2
4DS8-*	6DA2		
4DS8-*	4DA2		
4DS8-*	2DA2	4DS8-*	9EA2
		4DS8-*	9EA3
4DS8-*	4DE2	4DS8-*	6EA2-E
4DS8-*	EDE2	4DS8-*	6EA2-M
		4DS8-*	4EA2-E
4DS8-*	4DX3	4DS8-*	4EA2-E
4DS8-*	4DX2		

* See 9.3.3 preceding for explanation.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
4DS8-*8EB2-E	4DS8-*4NO2	4DX3 9DY2
4DS8-*8EB2-M	4DS8-*2NO2	4DX2 6DY3
4DS8-*6EB2-E		4DX3 6DY3
4DS8-*6EB2-M	4DS8-*4PR2	4DX2 6DY2
	4DS8-*2PR2	4DX3 6DY2
4DS8-*2GO2		4DX2 4DY2
4DS8-*2GO3	4DS8-*4RV2-T	4DX3 4DY2
4DS8-*6GS2	4DS8-*2RV2-T	4DX2 2DY2
4DS8-*4GS2		4DX3 2DY2
4DS8-*2GS2	4DS8-*4SF2	
4DS8-*2GS3	4DS8-*4SF3	6DX2 9EA3
		6DX2 9EA2
4DS8-*2LA2	4DS8-*4TF2	6DX2 6EA2-E
	4DS8-*2TF2	6DX2 6EA2-M
	4DS8-*2LB2	6DX2 4EA2-E
	4DX2 4DX2	6DX2 4EA2-M
8DS8-*2LC2	4DX3 4DX2	4DX2 9EA2
	4DX3 4DX3	4DX3 9EA2
	4DS8-*2LO2	4DX2 9EA3
4DS8-*2LO3	6DX2 9DY3	4DX3 9EA3
	6DX2 9DY2	4DX2 6EA2-E
4DS8-*4LR2	6DX2 6DY3	4DX3 6EA2-E
4DS8-*2LR2	6DX2 6DY2	4DX2 6EA2-M
	6DX2 4DY2	4DX3 6EA2-M
4DS8-*6LS2	6DX2 2DY2	4DX2 4EA2-E
4DS8-*4LS2	4DX2 9DY3	4DX3 4EA2-E
4DS8-*2LS2	4DX3 9DY3	4DX2 4EA2-M
4DS8-*2LS3	4DX2 9DY2	4DX3 4EA2-M

* See 9.3.3 preceding for explanation.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
6DX2 8EB2-E	4DX2 6LS2	9DY2 6DY3
6DX2 8EB2-M	4DX3 6LS2	9DY3 4DY2
6DX2 6EB2-E	4DX3 4LS2	9DY2 4DY2
6DX2 6EB2-M	4DX2 4LS2	9DY2 2DY2
4DX2 8EB2-E	4DX3 2LS3	9DY3 2DY2
4DX2 8EB2-M	4DX2 2LS3	6DY3 6DY3
4DX3 8EB2-E	4DX3 2LS2	6DY3 6DY2
4DX3 8EB2-M	4DX2 2LS2	6DY2 6DY2
4DX2 6EB2-E	2DX3 2LS2	6DY3 4DY2
4DX2 6EB2-M	2DX3 2LS3	6DY3 2DY2
4DX3 6E82-E		6DY2 4DY2
4DX3 6EB2-M	4DX3 4RV2-T	6DY2 2DY2
4DX2 4RV2-T	4DY2 2DY2	
4DX2 2LA2	4DX3 2RV2-T	4DY2 4DY2
4DX3 2LA2	4DX2 2RV2-T	
2DX3 2LA2		6EA2-E 4AC2
	6DX2 4SF2	6EA2-M 4AC2
4DX2 2LB2	4DX2 4SF2	6EA2-E 2AC2
4DX3 2LB2	4DX3 4SF2	6EA2-M 2AC2
2DX3 2LB2	4DX2 4SF3	
	4DX3 4SF3	9EA2 9DY3
4DX2 2LC2		9EA2 9DY2
4DX3 2LC2	9DY3 9DY3	9EA2 6DY3
2DX3 2LC2	9DY3 9DY2	9EA2 6DY2
	9DY2 9DY2	9EA2 4DY2
4DX2 2LO3	9DY3 6DY3	9EA2 2DY2
4DX3 2LO3	9DY3 6DY2	9EA3 9DY3
2DX3 2LO3	9DY2 6DY2	

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
9EA3 9DY2	4EA2-M 9DY2	4EA3-E 9EA2
9EA3 6DY3	4EA2-M 6DY3	4EA3-E 9EA3
9EA3 6DY2	4EA2-M 6DY2	4EA2-M4EA2-M
9EA3 4DY2	4EA2-M 4DY2	
9EA3 2DY2	4EA2-M 2DY2	9EA2 8EB2-E
6EA2-E 9DY3	9EA2 8EB2-M	
6EA2-E 9DY2	9EA2 9EA2	9EA2 6EB2-E
6EA2-E 6DY3	9EA2 9EA3	9EA2 6EB2-M
6EA2-E 6DY2	9EA2 6EA2-E	9EA3 8EB2-E
6EA2-E 4DY2	9EA2 6EA2-M	9EA3 8E82-M
6EA2-E 2DY2	9EA2 4EA2-E	9EA3 6EB2-E
6EA2-M 9DY3	9EA2 4EA2-M	9EA3 6EB2-M
6EA2-M 9DY2	9EA3 9EA3	6EA2-E 8EB2-E
6EA2-M 6DY3	9EA3 6EA2-E	6EA2-E 8EB2-M
6EA2-M 6DY2	9EA3 6EA2-M	6EA2-E 6EB2-E
6EA2-M 4DY2	9EA3 4EA2-E	6EA2-E 6EB2-M
6EA2-M 2DY2	9EA3 4EA2-M	6EA2-M 8EB2-E
4EA2-E 9DY3	6EA2-E 6EA2-E	6EA2-M 8E82-M
4EA2-E 9DY2	6EA2-E 6EA2-M	6EA2-M 6EB2-E
4EA3-E 9DY3	6EA2-M 6EA2-M	6EA2-M 6EB2-M
4EA3-E 9DY2	6EA2-E 4EA2-E	4EA2-E 8EB2-E
4EA3-E 6DY3	6EA2-E 4EA2-M	4EA2-E 8EB2-M
4EA3-E 6DY2	6EA2-M 4EA2-E	4EA3-E 8EB2-E
4EA3-E 4DY2	6EA2-M 4EA2-M	4EA3-E 8E82-M
4EA3-E 2DY2	4EA2-E 4EA2-E	4EA2-E 6EB2-E
4EA2-E 6DY3	4EA3-E 6EA2-E	4EA2-E 6EB2-M
4EA2-E 6DY2	4EA3-E 6EA2-M	4EA3-E 6EB2-E
4EA2-E 4DY2	4EA3-E 4EA2-E	4EA3-E 6EB2-M
4EA2-E 2DY2	4EA3-E 4EA2-M	4EA2-M 8EB2-E
4EA2-M 9DY3	4EA2-E 4EA2-M	

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
4EA2-M 8EB2-M	9EA3 43F2	6EB3-E 9DY2
4EA2-M 6EB2-E	9EA2 4SF2	6EB3-E 9DY3
4EA2-M 6EB2-M	6EA2-E 4SF3	6EB2-E 6DY2
	6EA2-M 4SF3	6EB3-E 6DY2
6EA2-E 2LA2	6EA2-E 4SF2	6EB2-E 6DY3
6EA2-M 2LA2	6EA2-M 4SF2	6EB3-E 6DY3
	4EA3-E 4SF2	6EB2-E 4DY2
6EA2-E 2LB2	4EA2-E 4SF2	6EB3-E 2DY2
6EA2-M 2LB2	4EA2-M 4SF2	6EB3-E 4DY2
		6EB2-M 9DY2
6EA2-E 2LC2	8EB2-E 4AC2	6EB2-M 9DY3
6EA2-M 2LC2	8EB2-M 4AC2	6EB2-M 6DY2
	8EB2-E 2AC2	6EB2-M 6DY3
6EA2-E 2LO3	8EB2-M 2AC2	6EB2-M 4DY2
6EA2-M 2LO3		6EB2-E 2DY2
8EB2-E 9DY3	6EB2-M 2DY2	
6EA2-E 6LS2	8EB2-E 9DY2	
6EA2-M 6LS2	8EB2-E 6DY3	6EB3-E 9EA2
6EA2-E 4LS2	8EB2-E 6DY2	6EB3-E 9EA3
6EA2-M 4LS2	8EB2-E 4DY2	6EB3-E 6EA2-E
6EA2-E 2LS2	8EB2-E 2DY2	6EB3-E 6EA2-M
6EA2-M 2LS2	8EB2-M 9DY3	6EB3-E 4EA2-E
6EA2-E 2LS3	8EB2-M 9DY2	6EB3-E 4EA2-M
6EA2-M 2LS3	8EB2-M 6DY3	
8EB2-M 6DY2	8EB2-E 8EB2-E	
6EA2-E 4RV2-T	8EB2-M 4DY2	8EB2-E 8EB2-M
6EA2-M 4RV2-T	8EB2-M 2DY2	8EB2-M 8EB2-M
6EA2-E 2RV2-T	6EB2-E 9DY2	8EB2-E 6EB2-E
6EA2-M 2RV2-T	6EB2-E 9DY3	8EB2-E 6EB2-M

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
8EB2-M 6EB2-E	8EB2-E 4RV2-T	8EC2 8EB2-M
8EB2-M 6EB2-M	8EB2-M 4RV2-T	8EC2 6EB2-E
6EB2-E 6EB2-E	8EB2-E 2RV2-T	8EC2 6EB2-M
6EB2-E 6EB2-M	8EB2-M 2RV2-T	
6EB3-E 8EB2-E		8EC2 4SF2
6EB3-E 8EB2-M	8EB2-E 4SF2	6EX2-B 2GO3
6EB2-M 6EB2-M	8EB2-M 4SF2	6EX2-A 6GS2
8EB2-E 4SF3	6EX2-A 4GS2	
8EB2-E 2LA2	8EB2-M 4SF3	6EX2-A 2GS2
8EB2-M 2LA2	6EB3-E 4SF2	6EX2-A 2GS3
6EB2-E 4SF2		
8EB2-E 2LB2	6EB2-M 4SF2	6EX2-B 2LA2
8EB2-M 2LB2		
8EC2 9DY2	6EX2-B 2LB2	
8EB2-E 2LC2	8EC2 9DY3	
8EB2-M 2LC2	8EC2 6DY2	6EX2-B 2LC2
84C2 6DY3		
8EB2-E 2LO3	8EC2 4DY2	6EX2-B 2LO2
8EB2-M 2LO3	8EC2 2DY2	6EX2-B 2LO3
8EB2-E 6LS2	8EC2 9EA2	6EX2-B 4LR2
8EB2-M 6LS2	8EC2 9EA3	6EX2-B 2LR2
8EB2-E 4LS2	8EC2 6EA2-E	
8EB2-M 4LS2	8EC2 6EA2-M	6EX2-A 6LS2
8EB2-E 2LS2	8EC2 4EA2-E	6EX2-A 4LS2
8EB2-M 2LS2	8EC2 4EA2-M	6EX2-A 2LS2
8EB2-E 2LS3		6EX2-A 2LS3
8EB2-M 2LS3	8EC2 8EB2-E	

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
6EX2-A 4SF2	6LO2 6LS2	4LR2 4SF2
6EX2-B 4SF2	6LO2 4LS2	4LR3 4SF2
	6LO2 2LS2	
6GO2 6GS2	6LO2 2LS3	6LS2 2LA2
6GO2 4GS2	4LO2 6LS2	4LS2 2LA2
6GO2 2GS2	4LO2 4LS2	4LS3 2LA2
6GO2 2GS3	4LO3 6LS2	2LS2 2LA2
4GO2 6GS2	4LO3 4LS2	2LS3 2LA2
4GO3 6GS2	4LO3 2LS3	
4GO2 4GS2	4LO3 2LS2	6LS2 2LB2
4GO3 4GS2	4LO2 2LS2	4LS2 2LB2
4GO2 2GS2	4LO2 2LS3	4LS3 2LB2
4GO2 2GS3	2LO3 2LS3	2LS2 2LB2
4GO3 2GS2	2LO3 2LS2	2LS3 2LB2
4GO3 2GS3	2LO2 2LS2	
2GO2 2GS2	2LO2 2LS3	6LS2 2LC2
2GO3 2GS2		4LS2 2LC2
2GO2 2GS3	6LO2 4SF2	4LS3 2LC2
2GO3 2GS3	4LO2 4SF2	2LS2 2LC2
	4LO3 4SF2	2LS3 2LC2
6GO2 4SF2		
4GO2 4SF2	4LR2 4LR1	6LS2 2LO3
4GO3 4SF2	4LR3 2LR2	6LS2 2LO2
	4LR2 4LR2	4LS2 2LO2
6GS2 2GO2	4LR2 2LR2	4LS2 2LO3
4GS2 2GO2	2LR2 2LR2	4LS3 2LO2
4GS3 2GO2	2LR3 2LR2	4LS3 2LO3
4GS2 2GO3		

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	Compatible CIs	Compatible CIs
6LS2 4SF2	4SF3 9DY2	4SF3 2LA2
4LS3 4SF2	4SF2 9DY3	
	4SF3 6DY3	4SF2 2LB2
4NO2 6DA2	4SF2 6DY3	4SF3 2LB2
4NO2 4DA2	4SF2 6DY3	
4NO2 2DA2	4SF3 6DY2	4SF2 2LC2
2NO2 2DA2	4SF2 4DY2	4SF3 2LC2
	4SF3 4DY2	
4NO2 4DE2	4SF3 2DY2	4SF2 2LO3
4NO2 2DE2	4SF2 2DY2	4SF3 2LO3
4NO2 4NO2	4SF3 9EA2	4SF2 2LR2
4NO2 2NO2	4SF3 9EA3	4SF3 4LR2
2NO2 2NO2	4SF3 4EA2-E	4SF3 2LR2
2NO3 2NO2	4SF3 4EA2-M	
		4SF3 6LS2
2NO3 2PR2	4SF3 6EB2-E	4SF2 4LS2
	4SF3 6EB2-M	4SF3 4LS2
4RV2-0 4RV2-T	4SF3 2GO3	4SF2 2LS2
4RV2-0 2RV2-T	4SF3 6GS2	4SF2 2LS3
4RV2-0 2RV2-T	4SF2 6GS2	4SF3 2LS2
4SF2 6GS2		4SF3 2LS3
4RV2-0 4SF2	4SF3 4GS2	
	4SF2 2GS2	4SF3 4RV2-T
4SF2 4AC2	4SF2 2GS3	4SF2 4RV2-T
4SF2 2AC2	4SF3 2GS2	4SF2 2RV2-T
	4SF3 2GS3	4SF3 2RV2-T
4SF3 9DY3		
4SF2 9DY2	4SF2 2LA2	4SF3 4SF3

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(C) Voice Grade (Cont'd)

Compatible CIs	
4SF3	4SF2
4SF2	4SF2
4TF2	4TF2
4TF2	2TF2
2TF3	2TF2

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(D) Program Audio

Compatible CIs	Compatible CIs	Compatible CIs
4AH5-B 2PG1-3	4AH6-D 2PG1-3	4DS8-I5F 2PG2-5
4AH5-B 2PG1-5	4AH6-D 2PG1-5	4DS8-I5G 2PG2-8
4AH5-B 2PG1-8	4AH6-D 2PG1-8	4DS8-15H 2PG2-1
4AH5-B 2PG2-3	4AH6-D 2PG2-3	2PG2-1 2PG1-1
4AH5-B 2PG2-5	4AH6-D 2PG2-5	2PG2-1 2PG2-I
4AH5-B 2PG2-8	4AH6-D 2PG2-8	2PG2-3 2PGI-3
4AH6-C 2PG1-3	4DS8-15E 2PG1-3	2PG2-3 2PG2-3
4AH6-C 2PG1-5	4DS8=15F 2PG1-5	2PG2-5 2PG1-5
4AH6-C 2PG1-8	4DS8-15G 2PG1-8	2PG2-5 2PG2-5
4AH6-C 2PG2-3	4DS8-15H 2PG1-1	2PG2-8 2PG1-8
8AH6-C 2PG2-5	4DS8-15E 2PG2-3	2PG2-8 2PG2-8

(E) Video

Compatible CIs	Compatible CIs
2TV6-1 4TV6-15	4TV7-5 4TV6-5
4TV7-15	4TV7-5
2TV6-2 6TV6-15	4TV7-15 4TV6-15
6TV7-15	4TV7-15
2TV7-1 4TV6-15	6TV6-5 6TV6-5
4TV7-15	6TV7-5
2TV7-2 6TV6-15	6TV6-15 6TV6-15
6TV7-15	6TV7-15
4TV6-5 4TV6-5	6TV7-5 6TV6-5
4TV7-5	6TV7-5
4TV6-15 4TV6-15	6TV7-15 6TV6-15
4TV7-15	6TV7-15

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(F) Wideband Analog

Compatible CIs	Compatible CIs	Compatible CIs
4AH5-B 4AH5-B		4WD5-I 4WA5-1
4AH6-C 4AH5-B		4WD5-2 4WA5-I
4AH6-C 4AH6-C	4AH6-D 4AH6-D	4WD5-3 4WA5-2
4AH6-D	4AH5-B 4AH5-B	4DS8-15
4AH6-D	4AH6-C 4AH5-B	4DU8-A,B, or C
4AH6-C	4DU8-A,B, or C	
	4AH6-D	4DU8-A,B, or C

(G) Wideband Data

Compatible CIs	Compatible CIs	Compatible CIs
8WB5-18S 12WC6-18	8WB5-23A 1OWC6-23	8WB5-5OA 1OWC6-50
8WB5-19A 1OWC6-19	8WB5-23S 12W6-23S	8WB5-5OS 12WB6-50
8WB5-19S 12WC6-19	8WB5-4OS 12W6-40	

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(H) Digital Data

(1) Digital Data

Compatible CIs		Compatible CIs		Compatible CIs	
		4DS8-15	6DU5-48		
4DS8-15	4DU8-15+	4DS8-15	6DU5-56	4DU5-96	4DU5-96
4DS8-15	4DU8-24	4DS8-15	6DU5-96	6DU5-24	6DU5-24
4DS8-15	4DU8-48	4DU5-24	4DU5-24	6DU5-48	6DU5-48
4DS8-15	4DU8-56	4DU5-48	4DU5-48	6DU5-56	6DU5-56
4DS8-15	6DU5-96	4DU8-56	4DU5-56	6DU5-96	6DU5-96
4DS8-I5	6DU5-24				

\+ Available only as a cross connect of two digital circuits at appropriate digital speeds at a Telephone Company hub.

9. Interface Groups, Transmission Specifications and Channel Codes (Cont'd)

9.3 Channel Interface and Network Channel Codes (Cont'd)

9.3.5 Compatible Channel Interfaces (Cont'd)

(I) High Capacity

Compatible CIs		Compatible CIs	
		4DS8-15	4DU8-8
4DSO-63	4DSO-63	4DS8-I5J	6DU8-A
4DSO-63	6DU8-A,B or C	4DS8-15J	4DU8-A
4DSO-63	4DU8-A,B or C	4DS8-15K	6DU8-B
4DS6-27	4DS6-27	4DS8-I5K	4DU8-B
4DS6-27	6DU8-A,B or C	4DS8-15K	6DU8-C
4DS6-27	4DU8-A,B or C	4DS8-15K	4D78-C
4DS6-44	4DS6-44	4DS9-31	4DS9-31
4DS6-44	6DU8-A,B or C	4DS9-31	6DU8-A,B or C
4DS6-44	4DU8-A,B or C	4DS9-4DU8-A,B or C	
4DS8-15	4DS8-15+	4DU9-A,B or C	4DU8-A,B or C
4DS8-15	6DU8-B		

+ Available only as a cross connect of two individual circuits of 1.544 Mbps facilities at a Telephone Company hub.

10. Special Federal Government Access Services

10.1 General

This section covers Special Access Services that are provided to a customer for use only by agencies or branches of the Federal Government and other users authorized by the Federal Government. Services provided to state emergency operations centers are included. These services provide for command and control communications, including communications for national security, emergency preparedness and presidential requirements. They are required to assure continuity of Government in emergency and crisis situations and to provide for national security.

Services for command and control communications and for national security and emergency preparedness sometimes require short notice and short duration service provisions. These provisions are especially needed to meet presidential requirements or in response to natural, man-made, or declared emergencies. Requirements of this type cannot be forecasted and are usually needed for a relatively short period. The provision of service under these conditions may require the availability of facilities, such as portable microwave equipment, which are provided on a temporary basis by the Telephone Company or customer.

10. Special Federal Government Access Services (Cont'd)

10.2 Emergency Conditions

These services will be provided on the date requested or as soon as possible thereafter when the emergency falls into one of the following categories:

- State of crisis declared by the National Command Authorities (includes commitments made to the National Communications System in the "National Plan for Emergencies and Major Disasters").

- Efforts to protect endangered U.S. personnel or property both in the U.S. and abroad. (Includes space vehicle recovery and protection efforts.)

- Communications requirements resulting from hostile action, a major disaster or a major civil disturbance.

- The director (Cabinet level) of a Federal department, Commander of a Unified/Specified Command, or head of a military department has certified that a communications requirement is so critical to the protection of life and property or to the National Defense that it must be processed immediately.

- Political unrest in foreign countries which affect the national interest.

- Presidential service.

10. Special Federal Government Access Services (Cont'd)

10.3 Intervals to Provide Service

Services provided under the provisions of this section of the tariff are provided on an individual case basis. Therefore, orders for such service shall be placed under the Negotiated Interval provisions set forth in 5.1.7 preceding.

10.4 Safeguarding of Service

10.4.1 Facility Availability

In order to insure communications during periods of emergency, the Telephone Company will, within the limits of good management, make available the necessary facilities to restore service in the event of damage or to provide temporary emergency service.

In order to meet the requirements of agencies or branches of the Federal Government, the Telephone Company may utilize government-owned facilities, when necessary to provide service.

10.5 Federal Government Regulations

In accordance with Federal Government Regulations, all service provided to the Federal Government will be billed in arrears. However, this provision does not apply to other customers that obtain services under the provisions of this tariff to provide their services to the Federal Government.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government

The following unique services are provided to a customer for use only by agencies or branches of the Federal Government, other authorized users and state emergency operations centers. The rates and charges for these services shall be developed on an individual case basis and shall be consistent with the rates and charges for services offered in other sections of this tariff.

10.6.1 Type and Description

(A) Voice Grade Special Access Services

(1) Voice Grade Secure Communications Type I

Approximate bandwidth of 10-50,000 Hertz. Furnished for two-point secure communications on two-wire or four-wire metallic facilities between an IC premises and an end user's premises. Services are conditioned as follows:

T-3 Conditioning - The absolute loss (referenced to 1 milliwatt) with respect to frequency shall not exceed:

15 dB at 10 Hz
13 dB at 100 Hz
9 dB at 1,000 Hz
20 dB at 10,000 Hz
30 dB at 50,000 Hz

Additional conditioning (available in one or two directions on four-wire facilities only) to provide the following characteristics:

The absolute loss (referenced to one milliwatt) with respect to frequency shall not exceed:

0 db at 1,000 Hz
1 dB between 1,000 Hz and 40,000 Hz
2 dB between 10 Hz and 50,000 Hz
(+ means more loss)

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.1 Type and Description (Cont'd)

(A) Voice Grade Special Access Services (Cont'd)

(1) Voice Grade Secure Communications Type I (Cont'd)

The net loss of the conditioned service (with or without additional conditioning) shall not vary by more than four dB at 1,000 Hz from the levels specified above. Voice frequency signaling or supervisory tones can be transmitted.

(2) Voice Grade Secure Communications Type II

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between an IC premises on an end user's premises and an end user's premises. Services are conditioned as follows:

G-1 Conditioning - The absolute loss with respect to frequency and the net loss variation shall be the same as Voice Grade Secure Communications Type I services without additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.1 Type and Description (Cont'd)

(A) Voice Grade Special Access Services (Cont'd)

(3) Voice Grade Secure Communications Type III

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between an IC premises switch and an end user's premises. Services are conditioned as follows:

G-2 Conditioning - The absolute loss with respect to frequency and the net loss variation from the switch to an end user's premises shall be the same as Voice Grade Secure Communications Type I services without additional conditioning; from an end user's premises to the switch shall be the same as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

(4) Voice Grade Secure Communications Type IV

Approximate bandwidth 10-50,000 HZ. Furnished on four-wire metallic facilities for duplex operation for two-point secure communication between two IC premises switches. Services are conditioned as follows:

G-3 Conditioning - The absolute loss with respect to frequency and the net loss variation shall be the same in both directions of transmission as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.1 Type and Description (Cont'd)

(B) Wideband Digital Special Access Service

Service arrangements for secured communications to accommodate the transmission of binary digital baseband signals in a random polar format.

(1) Wideband Secure Communications Type I

For transmission at the rate of 18,750 bits per second.

(2) Wideband Secure Communications Type II

For transmission at the rate of 50,000 bits per second.

(3) Wideband Secure Communications Type III

To accommodate the transmission of restored polar two-level facsimile signals with a minimum signal element width of twenty microseconds at a rate of 50,000 bits per second.

To accommodate the transmission of binary digital baseband signals in a random polar format at the rate of 50,000 bits per second.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.1 Type and Description (Cont'd)

(C) Special Routing Access Service

Special Routing Access Service is furnished only to AT&T Communications (AT&T-C) for an agency or branch of the Federal Government. This service provides the customer's end users the ability to originate and terminate calls to or from the customer's premises utilizing a Special Routing Plan.

This service is an optional service which operates in conjunction with Trunk Side Premium Access Service furnished to AT&T-C under other provisions of this tariff.

10.6.2 Mileage Application

Mileage, when used for rate application between two customer premises, shall be determined by the V and H Coordinates Method as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. No. 4 and administered as set forth in Section 7.5.5.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.3 Rates and Charges

(A) Voice Grade Special Access Service

The provision of T-3 and G conditioned services contemplates station and tandem switching operations, using customer provided equipment, as well as Special Access Service. Separate narrowband or voice grade services, where required by the customer provided equipment or switching operation, are furnished in accordance with the applicable sections of this tariff.

Voice Grade Secure Communications	USOC	Monthly Rates	Nonrecurring Charges	Termination Charges
Type I, each T-3 Conditioning,	GCA++	ICB rates and charges apply		
Additional Conditioning, per service termination	GTO++	ICB rates and charges apply		
Type II, each G-I Conditioning,	GCB++	ICB rates and charges apply		
Type III, each G-2 Conditioning,	GCC++	ICB rates and charges apply		
Additional Conditioning, per service termination	G20++	ICB rates and charges apply		

Voice Grade Secure Communications	USOC	Monthly Rates	Nonrecurring Charges	Termination Charges
Type VI, each G-3 Conditioning,	GCD++	ICB rates and charges apply		
Additional Conditioning, per service termination	G3O++	ICB rates and charges apply		

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.3 Rates and Charges (Cont'd)

(B) Wideband Digital Special Access Service

Wideband Secure Communications	USOC	Monthly Rates	Nonrecurring Charges	Termination Charges
Type I, each	GW1++	ICB rates and charges apply		
Type II, each	GW2++	ICB rates and charges apply		
Type III, each	GW3++	ICB rates and charges apply		

(C) Move Charges

(1) When service without a termination charge associated with it, as set forth in (A) and (B) preceding, is moved to a different building, the nonrecurring charge applies; when moved to a new location in the same building, a charge of one-half the nonrecurring charge applies.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.3 Rates and Charges (Cont'd)

(C) Move Charges (Cont'd)

(2) When service with a termination charge associated with it, as set forth in (A) and (B) preceding, is moved and is reinstalled at a new location, the customer may elect:

- to pay the unexpired portion of the termination charge for the service, if any, with the application of nonrecurring charge and the establishment of a new termination charge for such service at the new location, or

- to continue service subject to the unexpired portion of the termination charge, if any, and pay the estimated costs of moving such service, provided that the customer requests these charges be quoted prior to ordering the service move. Charges for moving such service will be based on estimated costs attributable to the move.

Move charges include the estimated costs of removal, restoration of services or facilities necessitated by the move, transportation, storage, reinstallation, engineering, labor, supervision, materials, administration, and any other specific items of cost directly attributable to the move.

10. Special Federal Government Access Services (Cont'd)

10.6 Service Offerings to the Federal Government (Cont'd)

10.6.3 Rates and Charges (Cont'd)

(D) Special Routing Access Services

The following rates and charges are in addition to all other rates and charges that may be applicable for other services that may be furnished under the provisions of this tariff to operate in conjunction with this service:

		USOC	Monthly Rates	Nonrecurring Charges
(1)	Special Routing Access Service Special Routing Plan Setup, per Switching System	GCD++	-	$ 200.00
(2)	Special Routing Access Service Trunk Group Setup, per End Office or Tandem Office, Switching System per occurrence	GID	-	1,000.00
(3)	Special Routing Access Service Mode Selection (Active or De-active), per Switching System per occurrence	GIE	-	200.00
(4)	Special Routing Access Service Maintenance and Administration, per Switching System per month*	GIM	150.00	-

* This rate applies only to Switching Systems with this feature.

11. Special Facilities Routing of Access Services

11.1 Description of Special Facilities Routing of Access Services

The services provided under this tariff are provided over such routes and facilities as the Telephone Company may elect. Special Facilities Routing is involved when, in order to comply with requirements specified by the customer, the Telephone Company provides Switched Access Service, Special Access Service or Special Federal Government Access Service in a manner which includes one or more of the following conditions:

11.1.1 Diversity

Two or more services must be provided over not more than two different physical routes. Diversity is a Basic Service Element (BSE) under the Telephone Company's Open Network Architecture (ONA) Plan.

11.1.2 Avoidance

A service must be provided on a route which avoids specified geographical locations.

11. Special Facilities Routing of Access Services (Cont'd)

11.1 Description of Special Facilities Routing of Access Services (Cont'd)

11.1.3 Cable-Only Facilities

Certain Voice Grade services are provided on Cable-Only Facilities to meet the particular needs of a customer.

Service is provided subject to the availability of Cable-Only facilities. In the event of service failure, restoration will be made through the use of any available facilities as selected by the Telephone Company.

Avoidance and Diversity are available on Switched Access Service as set forth in 6. preceding; Metallic and Telegraph Grade, Voice Grade and Wideband Analog Special Access Services as set forth in Section 7.3, 7.4, 7.5 and 7 and 10.6 preceding. Cable-Only Facilities are available for Switched Access Service as set forth in Section 6 preceding; Voice Grade Special Access Services as set forth in 7.5 preceding and Special Federal Government Access Services as set forth in 10.6 preceding.

In order to avoid the compromise of special routing information, the Telephone 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 as set forth in 11.2 following are in addition to all other rates and charges that may be applicable for services provided under other sections of this tariff.

11. Special Facilities Routing of Access Services (Cont'd)

11.2. Rates and Charges for Special Facilities Routing of Access Service

The rates and charges for Special Facilities Routing of Access Services are as follows:

11.2.1 Diversity

For each service provided in accordance with 11.1.1 preceding, the rates and charges will be developed on an individual case basis and filed following:

USOC

SYD++

11.2.2 Avoidance

For each service provided in accordance with 11.1.2 preceding, the rates and charges will be developed on an individual case basis and filed following:

USOC

SYA++

11. Special Facilities Routing of Access Services (Cont'd)

11.2 Rates and Charges for Special Facilities Routing of Access Services (Cont'd)

11.2.3 Diversity and Avoidance Combined

For each service provided in accordance with 11.1.1 and 11.1.2 preceding, combined, the rates and charges will be developed on an individual case basis and filed following:

USOC

SYB++

11.2.4 Cable-Only Facilities

For each service provided in accordance with 11.1.3 preceding, the rates and charges will be developed on an individual case basis and filed following:

USOC

SYC++

12. Specialized Service or Arrangements

12.1 General

Specialized Service or Arrangements may be provided by the Telephone 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 tariff.
- The facilities utilized to provide the requested service or arrangements are of a type normally used by the Telephone 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 Telephone Company services, facilities, and its engineering and maintenance practices.
- This offering is subject to the availability of the necessary Telephone Company personnel and capital resources.

12.2 Rates and Charges

Rates and charges and additional regulations if applicable, for specialized service or arrangements provided on an individual case basis are filed following:

Case No. 87-1 Customer: Norlight
Location: DeKalb, Illinois

Provision of a fiber optic system and electronics (with capacity of 28 DS1s or 1 DS3) over 6 fiber facilities between the CTC of Illinois Central Office, DeKalb, Illinois, and the Norlight POT at 13th and Clark Street, DeKalb, Illinois.

12. Specialized Service or Arrangements (Cont'd)

12.2 Rates and Charges (Cont'd)

Case No. 87-1 (Cont'd)

Nonrecurring Charge	$4564.00
Monthly Rate[1]	$4838.00

(1) The minimum billing period for this Specialized Arrangement is 60 months. In the event these services are terminated prior to the end of the minimum billing period, Norlight will pay Continental Telephone of Illinois the net present value of all remaining payments, calculated with a discount rate equal to the Federal Communications Commission authorized rate of return for Continental Telephone of Illinois' Interstate Special Access Services on the date of termination.

13. Exceptions to Access Service Offerings

The service offered under the provisions of this tariff are subject to availability as set forth in 2.1.4 preceding. In addition, the following exceptions apply:

(Paragraphs 13.1 through 13.5 following are reserved for future listing. In the meantime, in planning an end-to-end service, the customer should contact the Telephone Company in each customer premises city to assure itself that all of the service or service components required for a given customer service are currently available).

13.1 The following service(s) is (are) not offered in the operating territory of listed Issuing Carriers.

(Reserved for future use).

13.2 The following offering(s) is (are) limited to existing locations. No inside moves, rearrangements or additions will be permitted.

(Reserve for future use).

13.3 The following offering(s) is (are) limited to existing locations. Inside moves or rearrangements may be undertaken. However, no additions will be permitted.

(Reserve for future use).

13.4 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. Inside moves or rearrangements may be undertaken.

(Reserved for future use).

13.5 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. However inside moves or rearrangements will not be permitted.

(Reserved for future use).

14. EAS AND ACCESS TANDEM BILLING ARRANGEMENTS

14.1 General

This section sets forth information concerning the provision of Access Services by more than one exchange telephone company when providing Feature Group A in an Extended Area Service arrangement or Feature Group B in an Access Tandem arrangement, and such companies do not provide service under the same access service tariff. It is an adjunct to other sections of this tariff such as Ordering (Section 5) and Switched Access Service (Section 6).

14.2 Billing of Switched Access Service Feature Group A in Extended Area Service Arrangements

(A) Where the customer is provided Switched Access Service Feature Group A, in an Extended Area Service arrangement as set forth in 2.4.7(C) preceding, the Telephone Company may apply additional Switched Access Service rates. The application of such additional charges depends upon whether or not there exists a revenue sharing arrangement between the Telephone Company and the Primary Exchange Carrier (PEC). The Primary Exchange Carrier is the exchange telephone company in whose exchange the first point of switching for Feature Group A is located. Listed below, by state, is information concerning which Telephone Companies bill the additional Switched Access Service charges and which do not.

14. EAS AND ACCESS TANDEM BILLING ARRANGEMENTS (Cont'd)

14.2 Billing of Switched Access Service Feature Group A in Extended Area Service Arrangements (Cont'd)

State - Minnesota

PEC - Northwestern Bell Telephone Co.

CTCs Applying Add'l. Chgs.	CTCs Not Applying Add'l. Chgs.
Citizens Telecommunications of Minnesota, Inc.	

14. EAS AND ACCESS TANDEM BILLING ARRANGEMENTS (Cont'd)

14.3 Billing of Switched Access Service Feature Group B in Access Tandem Arrangements

(A) Where the customer is provided Switched Access Service Feature Group B in an Access Tandem arrangement, the Telephone Company may apply additional Switched Access Service rates. The application of such additional charges depends upon whether or not there exists a revenue sharing arrangement between the Telephone Company and the Primary Exchange Carrier (PEC). The Primary Exchange Carrier is the exchange telephone company in whose exchange the first point of switching for Feature Group B is located. Listed below, by state, is information concerning which Telephone Companies bill the additional Switched Access Service charges and which do not.

14. EAS AND ACCESS TANDEM BILLING ARRANGEMENTS (Cont'd)

14.3 Billing of Switched Access Service Feature Group B in Access Tandem Arrangements (Cont'd)

(B) State - Minnesota

PEC - Northwestern Bell Telephone Co.

CTCs Applying Add'l Chgs.	CTCs Not Applying Add'l Chgs.
CTC Minnesota	

15. (Reserved for Future Use)