FRONTIER COMMUNICATIONS OF IOWA, LLC

Telephone Access Service Tariff

Filed With

Iowa Utilities Board

May 18, 2018

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

ACCESS SERVICE

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ACCESS SERVICE

CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

U S WEST COMMUNICATIONS, INCORPORATED

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

ACCESS SERVICE

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 AND ACRONYMS

ac - Alternating Current
ANI - Automatic Number Identification
AP - Program Audio
AULP - Annual Underutilization Liability Per Pair
BHMC - Busy Hour Minutes of Capacity
BP - Billing Percentage
CCITT - Consultative Committee for International Telephone & Telegraph
CCS - Hundred Call Seconds
CCSA - Common Control Switching Arrangement(s)
CL - Common Line
CLLI - Common Language Location Identification
CNCC - Customer Network Control Center
COCTX - Central Office Centrex
Cont'd - Continued
CSACC - Customer Service Administration Control Center
CSU - Customer Supply Unit
Ctx - Centrex
CUG - Closed User Group
DA - Digital Data Access
db - Decibel
dBrnCO - Decibel Reference Noise C-Message Weighted O
dc - Direct current
DLR - Design Layout Report
DNA - Data Network Address

ACCESS SERVICE

EXPLANATION OF ABBREVIATIONS AND ACRONYMS (Cont'd)

DSP - Display System Protocol
DTE - Data Terminal Equipment
DTMF - Dual Tone, Multi-Frequency
DX - Duplex Signaling Interface
E&M - Ear & Mouth
800 DB - 800 Data Base
EDD - Envelope Delay Distortion
ELEPL - Equal Level Echo Path Loss
EML - Expected Measured Loss
EO - End Office
EPL - Echo Path Loss
EPSCS - Enhanced Private Switched Communications Service
ERL - Echo Return Loss
ESS - Electronic Switching System
ESSX - Electronic Switching System Exchange
EUCL - End User Common Line
f - frequency
FCC - Federal Communications Commission
FG - Feature Group
FX - Foreign Exchange
HC - High Capacity
Hz - Hertz
IC - Interexchange Carrier
ICB - Individual Case Basis
ICL - Inserted Connection Loss
ICUG - International Closed User Group
ILP - Initial Liability Period
IP - Interconnection Point
kbps - kilobits per second
kHz - kilohertz
LATA - Local Access Transport Area
LDMT - Long Distance Message Telecommunication Service(s)
LT - Local Transport
Ma - milliamperes
Mbps - Megabits per second
Mhz - Megahertz
MOU - Minutes of Use
MRC - Monthly Recurring Charge
MTL - Maximum Termination Liability

ACCESS SERVICE

EXPLANATION OF ABBREVIATIONS AND ACRONYMS (Cont'd)

MTS	-	Message Telephone Service
MTU	-	Maintenance Test Unit
NANP	-	North American Numbering Plan
NB	-	Narrowband
NPA	-	Numbering Plan Area
NRC	-	Nonrecurring Charge
NTS	-	Non-Traffic Sensitive
NXX	-	Three Digit Central Office Code
PA	-	Program Audio
PAD	-	Packet Assembler/Disassembler
PBX	-	Private Branch Exchange
PCM	-	Pulse Code Modulation
PEC	-	Primary Exchange Carrier
PIN	-	Personal Identity Number
PLR	-	Private Line Ringdown
POT	-	Point of Termination
PVC	-	Permanent Virtual Circuit
RC	-	Rate Category
rms	-	root-mean-square
SAL	-	Special Access Line
SDLC	-	Synchronous Data Line Control
SEC	-	Secondary Exchange Carrier
SMS/800	-	Service Management System/800
SNA	-	Systems Network Architecture
SRL	-	Signing Return Loss
SSN	-	Switched Service Network
SWC	-	Serving Wire Center
TES	-	Telephone Exchange Service(s)
TPL	-	Transmission Level Point
TV	-	Television
USOC	-	Uniform Service Order Code
V&H	-	Vertical & Horizontal
VG	-	Voice Grade
WA	-	Wideband Analog
WATS	-	Wide Area Telecommunications Service(s)
WCH	-	Wire Center Horizontal
WCV	-	Wire Center Vertical
WD	-	Wideband Digital
WSO	-	WATS Serving Office

ACCESS SERVICE

REFERENCE TO OTHER TARIFFS

Whenever reference is made in this tariff to other tariffs of Frontier Communications of Iowa, Inc., 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 the respective agencies listed below, and from the Federal Communications Commission's commercial contractor:

Technical Reference:

Federal Aviation Administration (FAA)
Specification S-1142a
Issued: April 1964
Available: April 1964

Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Electronic Industries Association, RS-250-B
Issued: September 1976
Available: September 1976

Electronic Industries Association
2001 Eye Street, NW
Washington, DC 20006

Publication as No. 1
Issued: March 1984
Available: April 1984

National Exchange Carrier Association, Inc.
Group Manager - Tariff Administration
100 South Jefferson Road
Whippany, NJ 07981

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following technical publications are referenced in this tariff and may be obtained from the Literary Data Center, Inc., G.P.O. Box C-9104, Brooklyn, NY 11202.

Technical Reference:

Publication 41004
Issued: October 1983
Available: October 1978

Publication 62310
Issued: September 1983
Available: October 1983

Publication 62411
Issued: September 1983
Available: October 1983

Publication 62500
Issued: December 1983
Available: March 15, 1984

Publication 62501
Issued: December 1983
Available: March 15, 1984

Publication 62501 Addendum
Issued: December 1983
Available: April 1984

Publication 62502
Issued: December 1983
Available: January 1984

Publication TR-NPL-00037
Issued: July, 1987
Available: July, 1987

Publication 62503 Addendum
Issued: March 1984
Available: April 1984

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

Publication 62504
Issued: December 1983
Available: March 15, 1984

Publication 62504 Addendum
Issued: March 1984
Available: April 1984

Publication 62505
Issued: December 1983
Available: January 1984

Publication 62505 Addendum
Issued: March 1984
Available: April 1984

Publication 62506
Issued: December 1983
Available: January 1984

Publication 62507
Issued: December 1983
Available: March 15, 1984

Publication 62508
Issued: December 1983
Available: January 1984

MECAB (Multiple Exchange Carrier
Access Billing)
Issued: November 9, 1987
Available: November 9, 1987

MECOD (Multiple Exchange Carrier)
Ordering and Design Guidelines
Issued: June 9, 1987
Available: June 9, 1987

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

The following publication is referenced in this tariff and may be obtained from Bellcore Number Administration and Service Center (NASC), 920 West Mount Pleasant Avenue, Livingston, New Jersey 07039-0486.

Guidelines for 800 Data Base, Issue 2.0
Issued: November, 1992 Available: November, 1992

The following publication is referenced in this tariff and may be obtained from Bellcore Communications Research, Customer Services, 8 Corporate Place, Piscataway, NJ 08854

SMS/800 User Guide: 800 Service Management, Issue 10
Issued: January, 1993 Available: January, 1993

ACCESS SERVICE

1. Application of Tariff

1.1 This tariff contains regulations, rates, and charges applicable to the provision of End User Access, Switched Access and Special Access Services, and other miscellaneous services, hereinafter referred to as service(s), provided by Frontier Communications of Iowa, Inc., hereinafter referred to as the Telephone Company, to Customers.

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

ACCESS SERVICE

2. General Regulations

2.1 Undertaking of the Telephone Company

2.1.1 Scope

(A) The Telephone Company will provide services under this tariff only to Customers in connection with their use and/or provision of intrastate communications service.

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

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

(D) The Telephone Company will, for maintenance purposes, test its services only to the extent necessary to clear troubles.

(E) Services are provided twenty-four (24) hours daily, seven (7) days a week unless otherwise stated.

2.1.2 Limitations

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

(B) Subject to compliance with the above-mentioned rules, the services offered herein will be provided to Customers on a first-come, first-served basis. The Telephone Company will use service order dates to determine service provision priority.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability

(A) The Telephone Company's liability for damages for its willful misconduct, if any, is not limited by this tariff. The Telephone Company liability, if any, to a Customer or to others for damages arising from the furnishing of or the failure to furnish service or facilities, including but not limited to errors, interruptions, breakdowns, or other defects, whether caused by act or omission, shall be limited to the allocable charges for the service or facilities for the period affected, and shall be further limited under the provisions of Sections 2.1.3(B), (C), and (D), where applicable. The Telephone Company's responsibility, if any, to pay amounts otherwise due as a Credit Allowance for a Service Interruption under this tariff is not affected by this limitation of liability.

(B) The Telephone Company is not liable for any special, incidental, or consequential damages, or for commercial loss of any kind, whether or not it has been informed of the possibility of such damages.

(C) The Telephone Company is not liable for physical damage to a Customer's designated premises resulting from the furnishing of a service, including the installation and removal of equipment and associated wiring, unless the damage is caused solely by the Telephone Company's negligence.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

(D) 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 the services so provided to that Customer.

(E) 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. 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.

(F) The Telephone Company's failure to provide or maintain services under this tariff shall be excused by labor difficulties, governmental orders, civil commotions, acts of God, and other circumstances beyond the Telephone Company's reasonable control.

(G) 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.4 Provision of Services

The provision of all services under this tariff is dependent in all situations on the availability of Telephone Company plant and equipment.

2.1.5 Installation and Termination of Services

The services provided under this tariff will be made to the point of demarcation on one exterior wall of the building.

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, except with the prior written consent of the Telephone Company, 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.

2.1.7 Changes and Substitutions

Except as provided in this tariff, 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; (B) change minimum network protection criteria; (C) change operating or maintenance characteristics of facilities; or (D) change operation or procedures of the Telephone Company. In case of any such substitution, change or rearrangement, the facility parameters will be within the ranges set forth in this tariff. 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 a substitution, change, or rearrangement materially affects the operating characteristics of the facility, the Customer will be given adequate notice 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 minimize any disruption caused or changes made necessary by changes in service.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.8 Discontinuance and Refusal of Service

Unless the provisions of Section 2.1.2 or 2.2.1(B) apply, if the Customer fails to comply with Sections 2.1.6 or 2.2.2, 2.3.3, 2.3.4, 2.3.5, or 2.4 or fails to make any payment to be made by it on the dates and times herein specified, including the payment of a disputed amount, the Telephone Company may, on thirty (30) days written notice given in person, by registered or certified mail, or by recognized overnight courier service to the person designated by that Customer to receive notices of noncompliance:

(A) refuse additional applications for service and/or refuse to complete any pending orders for service; and/or

(B) discontinue the provision of the services involved. In the case of such discontinuance, all applicable charges shall become due as if that Customer had cancelled service.

If the Telephone Company does not refuse additional applications for service on the date specified in the thirty (30) day notice given pursuant to (A) above, or does not discontinue the provision of the services involved on the date specified in the thirty (30) days notice given pursuant to (B) above, and that Customer's noncompliance continues, the Telephone Company shall have the right to refuse additional applications for service or to discontinue service without further notice.

2.1.9 Limitation of Use of Metallic Facilities

In the case of application 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.10 Rights to Telephone Numbers

The Telephone Company reserves the right to assign, designate, or change telephone numbers or change the central office prefixes associated with telephone numbers assigned to Customers as is reasonably necessary in the conduct of the Telephone Company business. Written notice of any change will be given to the Customer ninety (90) days in advance of the change. Where extenuating circumstances do not permit notice to be given ninety (90) days in advance, the Telephone Company will give notice within a reasonable period of time as circumstances permit. The notice will contain an explanation of the reasons for the change.

2.1.11 Representations

The Telephone Company does not represent that its facilities will meet standards other than those set forth in Sections 4, 5, 6 and 7 of this tariff.

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 or its affiliated companies, cause damage to plant, impair the privacy of any communications carried over facilities or create hazards to employees of the Telephone Company or its affiliated companies or to the public.

(B) Except as provided for in this tariff, if such characteristics or methods of operation are not in accordance with Section 2.2.1.(A), 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 from temporarily discontinuing 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.2 Use (Cont'd)

2.2.2 Unlawful Use

The services provided under this tariff shall not be used unlawfully or for any unlawful purpose.

2.3 Obligations of the Customer

2.3.1 Damages and Indemnification

(A) The Customer shall reimburse the Telephone Company for damages to the Telephone Company facilities utilized to provide services under this tariff caused by the negligence or willful act of the Customer, its agents, employees, officers, directors, invitees, guests, customers, and others using the services provided to the Customer by the Telephone Company, or resulting from improper use of the Telephone Company facilities by the Customer, its agents, employees, officers, guests, customers, and others using the services provided to the Customer by the Telephone Company, 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.1 Damages and Indemnification (Cont'd)

(B) 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 use of services offered under this tariff. This obligation to indemnify, defend, and hold harmless shall attach to the IC or the End User separately, and each shall be responsible for its own acts and omission, including:

(1) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from any communications;

(2) Claims for patent infringement arising from combining or using the service furnished by the Telephone Company in connection with facilities or equipment furnished by the End User or IC; or

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

Notwithstanding the other provisions of this Section 2.3.1(B), the Telephone Company shall be indemnified, defended, and held harmless by the Customer from any and all claims by any person relating to the Customer's use of services provided under this tariff.

2.3.2 Return of Facilities

Facilities provided by the Telephone Company to the possession or control of a Customer shall be returned by that Customer at its expense to the Telephone Company, upon request, within a prompt period of time following the request in as good a condition as when initially provided, reasonable wear and tear excepted.

ACCESS SERVICE

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 services or facilities of the Telephone Company.

2.3.4 Availability for Testing

The service 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 service 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, unless the interruption exceeds 24 hours.

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 loop and duplex (DX) type signaling and dc telegraph transmission at speeds of 75 baud or less.

2.3.6 Design of Customer Services

Subject to the provisions of Section 2.1.7, 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

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 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.

2.3.9 Assignment or Transfer of Services

The Customer may not assign or transfer the use of services provided under this tariff except, where there is no interruption of use or relocation of the services, such assignment or transfer may be made to:

(A) another Customer, whether an individual, partnership, association, or corporation, provided the assignee or transferee expressly 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

(B) 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 expressly 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. The acknowledgement will be made within fifteen (15) days from the receipt of notification. All 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 obligations existing at the time of the assignment or transfer.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Certification of Special Access Services As Interstate

(A) Interstate Classification Requirements

Pursuant to Federal Communications Commission Order FCC 89-224 adopted June 24, 1989 and released July 20, 1989, the jurisdiction for mixed interstate and intrastate Special Access Services will be determined as follows:

If the customer's estimate of the interstate traffic on the service involved constitutes ten percent (10%) or less of the total traffic on that service, the service will be provided in accordance with the applicable rules and regulations of the appropriate intrastate tariff.

If the customer's estimate of the interstate traffic on the service involved constitutes more than ten percent (10%) of the total traffic on that service, the service will be provided in accordance with the applicable rules and regulations of the interstate tariff.

(B) Certification Requirements

When a customer orders a Special Access Service, the customer shall certify, in its order, that the Special Access Service carries interstate traffic and the interstate traffic is more than ten percent (10%) of the total traffic carried on the Special Access Service.

(C) Verification Information

If a billing dispute arises or a regulatory commission questions the customer provided interstate percentage, the Telephone Company will ask the customer to provide the data the customer uses to determine the projected interstate percentage. The customer shall supply the data within 30 days of the Telephone Company request. The customer shall keep records of system design and functions from which the percentage of interstate and intrastate use can be determined and upon request of the Telephone Company make the records available for inspection as reasonably necessary for purpose of verification of the percentages.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Certification of Special Access Services as Interstate (Cont'd)

(D) Nonrecurring Charges and Penalties

Customers of Mixed Use Special Access Service will not incur a nonrecurring charge in accordance with Section 5.4.1 (C) of this tariff, nor any penalty for changes made to jurisdictional use of the line.

2.3.11 Identification and Rating of VoIP-PSTN Traffic [1]

(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"). 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 specified in the Telephone Company's applicable federal access tariff.

[1] 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 traffic 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.12 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 The Telephone Company from the customer. The PVU will be derived and applied as follows:

(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.

(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.

(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.

(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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

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

(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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances

2.4.1 Payment of Rates, Charges, and Deposits

(A) The Telephone Company may, in order to safeguard its interests, require a Customer which has a 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. That deposit will be held by the Telephone Company as a guarantee of the payment of rates and charges. No such deposit will be required if a Customer is a successor to a company which has established credit and has no history of late payments to the Telephone Company. The deposit will not exceed the anticipated charges for the service and facilities 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 advance payments or the prompt payment of bills. After 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. A deposit will be refunded or credited to the Customer's account after the Customer has established credit or in any event after Customer has established a timely payment record for twelve (12) consecutive months. For the period a cash deposit is held by the Telephone Company, the Customer will receive interest at the same rate as is set forth in Section 2.4.1(D) for late payment charges. A deposit given in connection with Special Construction under Section 10 or Specialized Service or Arrangements under Section 7 shall be treated in accordance with those tariff provisions.

(B) 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 or with service to the Federal Government, which will be billed in arrears. The bill date shall be printed on the bill. Adjustments for the quantities of services established or discontinued in any billing period, after the expiration of the minimum period for the service (as set forth in this tariff), will be prorated to the number of days or major fraction of days based on a 30-day month. To assist the Customer in verifying a bill, the Telephone Company will provide upon Customer's request, figures and calculations used by the Telephone Company in rendering the bill to the Customer, including information related to the calculation of the subscriber line ratio.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(C) Payment of bills must result in Immediately Available Funds on or before the payment due date. The payment due date shall be the 30th day following the bill date, provided that if such 30th day falls on a Saturday, Sunday, or legally observed Holiday (i.e., New Year's Day, Martin Luther King's birthday, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, the second Tuesday in November, and a day when Washington's Birthday, Memorial Day, or Columbus Day is legally observed), payment will be due as follows:

(1) If such 30th day falls on a Sunday or on a holiday observed on a Monday, the payment due date shall be the first non-holiday following such Sunday or holiday; or

(2) If such 30th day falls on a Saturday or on a holiday observed on Tuesday, Wednesday, Thursday, or Friday, the payment due date shall be the last non-holiday day preceding such Saturday or holiday.

(D) If any amount due is received by the Telephone Company after the payment due date or if any amount due is received by the Telephone Company in funds not immediately available to the Telephone Company on or before the payment due date, then a late payment charge shall be assessed. The late payment charge shall be such amount due times a late factor. The late factor shall be the lesser of:

(1) the highest interest rate (in decimal value) permissible under state law for commercial transactions in the state where the services were provided, compounded daily for the number of calendar days from the payment due date to and including the date Telephone Company actually receives the payment in immediately available funds, or

(2) 0.000500 per day, compounded daily for the number of calendar days from the payment due date to and including the date the Telephone Company actually receives the payment in immediately available funds.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(D) (Cont'd)

If Customer does not receive a bill at least 20 days prior to the payment due date, upon request of Customer submitted with proof of such late receipt of the bill, the late payment charge shall not apply for the number of days the bill was late.

Such proof includes but is not limited to the received date stamp of the customer on the bill along with certification of the Accounts Payable supervisor of the Customer that the received date stamp is accurate.

(E) If a billing dispute arises, Customer shall pay the undisputed amount by the payment due date and notify Telephone Company in writing of the dispute. Disputed amounts paid after the payment due date are subject to late payment charges. If the dispute is ultimately resolved in favor of Customer, Telephone Company shall refund the overpayment, including any late payment charges collected by Telephone Company with respect to the overpayment, plus interest at the rate prescribed for late payment charges in Section 2.4.1(D). For claims filed with the Telephone Company within four (4) months of the payment date, interest will be paid from the date the Customer pays the bill to the date the refund is made. For claims filed with the Telephone Company more than four (4) months after the payment date, interest will be paid from the claim date to the date the refund is made.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.2 Minimum Periods

The minimum period for which service is provided and for which rates and charges are applicable is one month unless a different minimum period is established elsewhere in this tariff. When a service is discontinued prior to the expiration of the minimum period, a charge is applicable for the remaining portion of the minimum monthly period, whether the service is used or not, and will be based on the rates in effect for the service at the time of discontinuance. In instances where the minimum period is more than thirty (30) days, the charge will be the lesser of the Telephone Company's nonrecoverable costs less the net salvage value, if any for the discontinued service or the total monthly charges at the rates in effect at the time service is discontinued, unless otherwise provided elsewhere in this tariff.

2.4.3 Credit Allowance for Service Interruptions

(A) General

A service is interrupted when it becomes unusable to the Customer because of a failure of a facility component used to furnish service under this tariff. For certain Special Access Services (Wideband Digital Data Access, and High Capacity), any period during which the error performance is below that specified for the service will be considered as an interruption. Except as otherwise provided, an interruption period starts when the Telephone Company becomes aware of the inoperative service, regardless of when it is reported by the Customer, and ends when the service is operative.

For purposes of administering the following regulations a "major fraction" means more than half of the incremental credit period using the unit of time in which the service interruption is measured, i.e., 30 seconds, 5 minutes. For example, a major fraction for a 30 minute period equals 16 minutes and for a 5 minute period equals 2 minutes and 31 seconds.

In case of an interruption to any service, allowance for the period of interruption shall be as follows:

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.3 Credit Allowance for Service Interruptions (Cont'd)

(A) General (Cont'd)

(1) For services, other than those mentioned in Sections 2.4.3(A)(2), (3) or (5), no credit shall be allowed for an interruption of less than thirty (30) minutes. The Customer shall be credited for an interruption of thirty (30) minutes or more at the rate of 1/1,440 of the monthly charge for the service for each period of thirty (30) minutes or major fraction thereof that the interruption continued from the time that an interruption period starts. For flat rated Switched Access Service rate elements, the monthly charge shall be the total of all monthly rate element charges associated with the service (i.e., Entrance Facility, Direct Trunked Transport and Multiplexing).

(2) For Video Service provided at daily rates, no credit shall be allowed for an interruption of less than thirty (30) seconds. The Customer shall be credited for an interruption of thirty (30) seconds or more at the rate of 1/288 of the daily charge for the service for each five (5) minutes or fraction thereof than an interruption continues from the time of notice to the designated Telephone Company operating center that an interruption has occurred. Two or more such interruptions occurring during a period of five (5) consecutive minutes shall be considered as one (1) interruption.

(3) For Switched Access Service, other than flat rated Switched Access Transport rate elements (i.e., Entrance Facility, Direct Trunked Transport and Multiplexing), credit allowances for interruptions apply only to the applicable monthly rates or the assumed minutes of use charge, whichever is applicable to the service involved. No credit allowance 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 or assumed minutes of use charge for each period of 24 hours or major fraction thereof that the interruption continues. Credit allowances for Entrance Facility, Direct Trunked Transport and Multiplexing service interruptions shall be set forth in 2.4.3(A)(1).

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.3 Credit Allowance for Service Interruptions (Cont'd)

(A) General (Cont'd)

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

(5) Service interruptions for Specialized Service or Arrangements provided under the provisions of Section 7 shall be administered in the same manner as those set forth in this Section 2.4.3 unless other regulations are specified with the individual case filing.

(B) When a Credit Allowance Does Not Apply

No credit allowance will be made for:

(1) Interruptions caused by the negligence of the Customer.

(2) Interruptions of a service due to the failure of equipment or systems provided by the Customer or others.

(3) Interruptions of a service which continue because of the failure of the Customer to authorize replacement of any element of Special Construction, as set forth in Section 10.

(4) Periods when the Customer elects not to release the service for testing and/or repair and continues to use it on an impaired basis.

(5) An interruption or a group of interruptions, resulting from a common cause, for amounts less than one dollar.

(C) 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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.3 Credit Allowance for Service Interruptions (Cont'd)

(D) Temporary Surrender of a Service

In certain instances, the Customer may be requested 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 determined in the same manner as a credit for service interruptions as set forth in Section 2.4.3(A).

2.4.4 Access Services Provided by More Than One Telephone Company

When an Access Service is provided by more than one Telephone Company, the Telephone Companies involved will mutually agree upon one of the billing methods as set forth in (A) and (B) following based upon the types of access services and the interconnection arrangements between the Telephone Companies.

The Telephone Company will notify the customer which billing methods will be used. The customer will place the order for the service as set forth in 9.2.10 dependent upon the billing method.

(A) Non Meet Point Billing

At the Telephone Company option, the non Meet Point Billing options may be applied to Feature Groups A and B Switched Access Services.

(1) Single Company Billing

Under Single Company Billing, the Telephone Company receiving the order from the customer, as specified in 9.2.10(A)(1), will arrange to provide the service, determine the applicable charges and bill the customer for the service in accordance with its Access Services tariff.

(2) Primary Exchange Carrier/Secondary Exchange Carrier Billing

Where the customer utilizes FGA Switched Access Service for calls between a Primary Exchange Carrier and a Secondary Exchange Carrier within the same Extended Area Service calling area and/or where the customer utilizes Feature Group B Switched Access

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(A) Non Meet Point Billing (Cont'd)

(2) (Cont'd)

Service for calls between a Primary Exchange Carrier's access tandem and a subtending Secondary Exchange Carrier as set forth in 4.6.17 following, the Telephone Company receiving the order from the customer, as specified in 9.2.10(A)(2), will determine the applicable charges and bill the customer for the service in accordance with its Access Services tariff. In addition, the Secondary Exchange Carrier will apply additional Switched Access Service rates provided the criteria in 4.6.14(E) and 4.6.17 are met.

(B) Meet Point Billing

Meet Point Billing is required when an access service is provided by multiple Telephone Companies for Feature Group C and D Switched Access Services, Directory Assistance, and Special Access. It is optional for Feature Groups A and B Switched Access Services.

For usage rated access services the access minutes of use will be determined by the Initial Billing Company and used by the Initial Billing Company and any Subsequent Billing Company(s) for the development of access charges.

- The Initial Billing Company for Feature Groups C and D Switched Access Services is normally the end user's end office, for WATS usage the Initial Billing Company is normally the WATS serving office, for Directory Assistance the Initial Billing Company is normally the Directory Assistance location. When the Initial Billing Company is other than the normally

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

- designated Telephone Company office, the Telephone Company will notify the customer.

- The Subsequent Billing Company(ies) is any Telephone Company whose territory a segment of Local Transport is provided and/or where the customer's Point of Termination is located.

The Telephone Company will utilize the Multiple Bill Meet Point Billing Option. The Telephone Company shall notify the customer that this option will be utilized at the time that orders are placed for access service. Additionally, the Telephone Company shall provide this notice in writing 30 days in advance of any change.

Meet Point bills rendered by the Telephone Company will include, based upon Industry Standards, cross reference(s) to the other Telephone Company(ies) service and the common circuit identifiers. Should a billing dispute arise, the terms and conditions of the Telephone Company rendering the bill will apply.

(1) Multiple Bill Option

Each Telephone Company will receive an order or a copy of the order from the customer as specified in 9.2.10(B). Each Telephone Company will: prepare its own bill; determine its portion of Local Transport, Directory Assistance, and/or Channel Mileage as set forth in 2.4.4(B)(2) following and determine the applicable charges; include all recurring and nonrecurring rates and charges of its tariff; bill in accordance with its tariff; and forward the bill to the customer.

The customer will remit the payment directly to each Telephone Company that bills it.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(2) Determination of Meet Point Billed Transport Calculations

Each Telephone Company will calculate its portion of the Local Transport, Directory Assistance Transport, and Channel Mileage as follows:

(a) Determine the total Direct Trunked Transport Facility, Tandem Switched Transport Facility or Channel Mileage by computing the number of airline miles between the Telephone Company premises (end office, access tandem or serving wire centers for Switched Access or serving wire centers for Special Access) using the V&H method set forth in 4.6.14 and 5.4.4. When Tandem Switched Transport is provided to a terminating carrier different from a Frontier Telephone ILEC Company, Terminating – Tandem 3rd party rates are applicable otherwise Terminating – Tandem Affilate rates are applicable. When originating Tandem Switched Transport is provided, Originating rates are applicable. Determine each Telephone Company's Local Transport and Channel Mileage using the Billing Percentage (BP) method as follows: (T) (T)

(b) Each Telephone Company will multiply the total number of airline miles, as set forth in (a) preceding, by its tariffed rate to determine a dollar amount.

(c) Determine the billing percentage (BP), as set forth in Exchange Carrier Association Tariff F.C.C. No. 4, which represents the portion of the services provided by each Telephone Company.

Multiply the BP times the dollar amount calculated in (b) preceding times the number of direct trunks to obtain the Direct Trunked Transport Facility charges for Switched Access Feature Groups and Directory Assistance.

Multiply the BP times the dollar amount calculated in (b) preceding, times the number of access minutes to obtain the Tandem Switched Transport Facility charges for Switched Access Feature Groups and Directory Assistance.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(2) Determination of Meet Point Billed Transport Calculations (Cont'd)

(c) (Cont'd)

Multiply the BP times the dollar amount calculated in (b) preceding to obtain the Channel Mileage Facility charges for Special Access.

Direct Trunked and Tandem Switched Transport Termination charges also apply as set forth in 4.1.2(B) and 4.7.1 except as set forth in (d) following. For jointly provided facilities, this charge applies at the Telephone Company end office (i.e., when the Telephone Company is the initial billing company).

Channel Mileage Termination charges also apply as set forth in 5.1.2(B)(2) and 5.5 except as set forth in (d) following, and apply only where the Telephone Company provides the channel termination. There is no distinction drawn between meet point billing customers and customers where the Telephone Company is the sole provider.

(d) When three or more Telephone Companies are involved in providing an access service, the intermediate Telephone Company(ies) will determine the appropriate charges as set forth in (a), (b), and (c) preceding, except the Direct Trunked Transport Termination, Tandem Switched Transport Termination or Channel Mileage Termination charges do not apply.

(e) When the tandem office is located within a Telephone Company operating territory, that company will bill 100 percent of the tandem switching rate.

ACCESS SERVICE

2. General Regulations (Cont'd) (T)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(3) Example 1 – Originating Switched Access

- Feature Group D Switched access is ordered to End Office.

- Originating End Office and Access Tandem are in the operating territory of a Telephone Company (TC-A).

- Customer Designated Premises is in the operating territory of a Telephone Company (TC-B)

- Assumptions:
  - TC-A Direct Trunk Transport BP = 40%
  - TC-B Direct Trunk Transport BP = 60%
  - Direct Trunked Transport mileage = 26 mi.
  - Tandem Switched Transport mileage = 23 mi.

- Telephone Company A charges are:
  - End Office charges = 9,000 min. x EO rate
  - Tandem Switched Transport Facility charge = 9,000 min. x 23 mi. x TSF rate
  - Tandem Switched Transport Termination charge = 2 terminations x 9,000 min. x TST rate
  - Tandem Switching Rate = 9,000 min. x TS rate
  - Direct Trunked Facility charge = 26 mi. x DTF rate x 40%
  - Direct Trunked Termination charge = 1 termination x DTT rate
  - Shared Multiplexing charge = 9,000 min. x 23 mi. x SM rate (T)

ACCESS SERVICE

2. General Regulations (Cont'd) (T)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(4) Example 2 – Terminating Switched Access – Tandem 3rd Party

- Feature Group D Switched Access is ordered to End Office.

- Terminating Access Tandem is owned by Frontier Telephone ILEC Companies (TC-A) and end office is owned by a non-Frontier Telephone ILEC Company.

- Assumptions:
  - TC-A Direct Trunk Transport BP = 40%
  - TC-B Direct Trunk Transport BP = 60%
  - Direct Trunk Transport mileage = 26 mi.
  - TC-A Tandem Switched Transport BP = 20%
  - TC-B Tandem Switched Transport BP = 80%
  - Tandem Switched Transport mileage = 23 mi.

- Telephone Company A charges are:
  - Tandem Switched Transport Facility-3rd Party charge = 9,000 min. x 23 mi. x TSF–3rd Party rate x 20%
  - Tandem Switched Transport Termination-3rd Party charge = 1 termination x 9,000 min. x TST – 3rd Party rate
  - Tandem Switching–3rd Party Rate = 9,000 min. x TS-3rd Party rate
  - Direct Trunked Facility charge = 26 mi. x DTF rate x 40%
  - Direct Trunked Termination charge = 1 termination x DTT rate
  - Shared Multiplexing 3rd Party Charge = 9,000 min. x 23 mi. x SM-3rd Party rate (T)

ACCESS SERVICE

2. General Regulations (Cont'd) (T)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(5) Example 3 –Terminating Switched Access Tandem End Office

- Feature Group D Switched Access is ordered to End Office.

- Terminating End Office and Access Tandem are both owned by Frontier Telephone ILEC Companies (TC-A).

- Assumptions:
  - TC-A Direct Trunk Transport BP = 40%
  - TC-B Direct Trunk Transport BP = 60%
  - Direct Trunk Transport mileage = 26 mi.
  - Tandem Switched Transport mileage = 23 mi.

- Telephone Company A charges are:
  - End office Charges = 9,000 min. x EO rate
  - Tandem Switched Facility – End Office charge = 9,000 min. x 23 mi. x TSF-End Office rate.
  - Tandem Switched Transport Termination –End Office charge = 2 terminations x 9.000 min. x TST-End Office rate.
  - Tandem Switching – End Office charge = 9,000 min. x TS-End Office rate
  - Direct Trunked Facility Charge = 26 mi x DTF rate x 40%
  - Direct Trunked Termination charge – 1 termination x DTT rate
  - Shared Multiplexing charge = 9,000 min. x 23 mi. x SM rate (T)

ACCESS SERVICE

2. General Regulations (Cont'd) (T)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(6) Example 4 –Terminating Switched Access-Tandem 3rd Party

- Feature Group D Switched Access is ordered to End Office.

- Terminating Access Tandem is owned by Frontier Telephone ILEC Companies (TC-A). Terminating End Office is owned by a non-Frontier Telephone ILEC Company.

- Assumptions:
  - Direct Trunk Transport mileage = 26 mi.
  - TC-A Tandem Switched Transport BP = 20%
  - TC-B Tandem Switched Transport BP = 80%
  - Tandem Switched Transport mileage = 23 mi.

- Telephone Company A charges are:
  - Tandem Switched Transport Facility-3rd Party charge = 9,000 min. x 23 mi. x TSF–3rd Party rate x 20%
  - Tandem Switched Transport Termination-3rd Party charge = 1 termination x 9,000 min. x TST – 3rd Party rate
  - Tandem Switching–3rd Party Rate = 9,000 min. x TS-3rd Party rate
  - Direct Trunked Facility charge = 26 mi. x DTF rate
  - Direct Trunked Termination charge = 2 terminations x DTT rate
  - Shared Multiplexing-3rd Party Charge = 9,000 min. x 23 mi. x SM-3rd Party rate (T)

ACCESS SERVICE

2. General Regulations (Cont'd) (T)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(B) Meet Point Billing (Cont'd)

(7) Example 5 – Originating Switched Access Frontier Telephone ILEC Company owns only the End Office.

- Feature Group D Switched Access is ordered to End Office.
- End Office is owned by Frontier Telephone ILEC Companies (TC-A).
- Access Tandem is owned by a non-Frontier Telephone ILEC Company (TC-B)
- Assumptions:
  - Direct Trunk Transport mileage = 26 mi.
  - TC-A Tandem Switched Transport BP = 80%
  - TC-B Tandem Switched Transport BP = 20%
  - Tandem Switched Transport mileage = 23 mi.
- Telephone Company A charges are:
  - End Office Charges = 9,000 min. x EO rate
  - Tandem Switched Transport Facility charge = 9,000 min. x 23 mi. x TSF rate x 80%.
  - Tandem Switched Transport Termination charge = 1 termination x 9.000 min. x TST rate.

(8) Example 6 – Terminating Switched Access – Tandem 3rd Party

- Feature Group D Switched Access is ordered to End Office.
- End Office is owned by Frontier Telephone ILEC Companies (TC-A).
- Access Tandem is owned by a non-Frontier Telephone ILEC Company (TC-B)
- Telephone Company A charges are:
  - End Office Charges = 9,000 min. x EO rate
  - Tandem Switched Transport Facility-3rd Party charge = 9,000 min. x 23 mi. x TSF-3rd Party rate x 80%.
  - Tandem Switched Transport Termination-3rd Party charge = 1 termination x 9.000 min. x TST-3rd Party rate. (T)

ACCESS SERVICE

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 Services 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 Section 2.1.

2.6 Definitions

Certain terms used herein are defined as follows:

Access Code

The term "Access Code" denotes a uniform five or seven digit code assigned by the Telephone Company to an individual Customer. The five digit code has the form 10XXX, and the seven digit code has the form 950-10XX or 950-00XX.

Access Minutes

The term "Access Minutes" denotes that usage of exchange facilities in intrastate or foreign service for the purpose of calculating chargeable usage. On the originating end of an intrastate 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 intrastate 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 intrastate or foreign call shall terminate when the calling or called party disconnects, whichever event is recognized first in the originating and terminating end exchanges, as applicable.

Access Tandem

The term "Access Tandem" denotes a Telephone Company switching system that provides a traffic concentration and distribution function for traffic originating from or terminating to an end office service a Customer designated premises.

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 point of termination for terminating calls to the exchange as an indication that the called party has answered or disconnected.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Asynchronous

A method of transmission in which information is sent with each character (byte) providing synchronization via start and stop bits.

Asynchronous Polled Interface (API)

Burrough's protocol that parallels IBM's SNA protocol.

Attenuation Distortion

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

Balance (100 Type) Test Line

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

Bit

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

Business 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. To determine the specific hours for a particular company, that company should be contacted at the address shown under the Issuing Carrier's name listed on the Title page.

Busy Hour Minutes of Capacity (BHMC)

The term "Busy Hour Minutes of Capacity" denotes the average of the highest time consistent hour of usage (i.e., the average of a series of measurements for the same clock hour) during the highest twenty consecutive business day period (i.e., a four consecutive week period during a calendar year).

Byte

8 bits of data also referred to as an octet.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Call

The term "Call" denotes a communication, including an off-hook signal and routing information, initiated by a Customer (calling party) and completed to a Directory Assistance Service access location or End User (called party) or to a Customer designated premises.

Call Park

A feature offered with Access Custom Services which allows the attendant to park calls against any directory number in the attendant customer group.

Call Set-Up

Any attempt by a CPSN user to establish a circuit to send packetized date.

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 lines or 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 Code

The term "Central Office Code" denotes the first three digits (NXX) of the seven (7) digit telephone number assigned to a Customer's Telephone Exchange Service.

Channel(s)

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Channel Service Unit

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

Channelize

The term "Channelize" denotes the process of multiplexing- demultiplexing channels using analog or digital techniques.

Circuit Termination

The data Circuit and associated conditioning which provides for dedicated access to the network.

Closed User Group (CUG)/International Closed User Group (ICUG)

An optional subscriber feature which allows the customer to establish a private network within the public network. The ICUG feature allows users in different public packet switching networks to form CUGS.

C-Message Noise

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

C-Notched Noise

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

ACCESS SERVICE

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 semi-public place where Telephone Company Customers can originate telephonic communications and pay the applicable charges by inserting coins into the equipment.

Coinless Pay Telephone

The term "Coinless Pay Telephone" denotes a public telephone provided by either the Telephone Company or a Customer through which an End User may originate interstate calls for which he pays by credit card, collect, or third number billing procedures.

Common Line

The term "Common Line" (also referred to as "subscriber 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. A common line-pay telephone is a line provided under the public, semi-public, and inmate service regulations of the General and/or Local Exchange Service tariffs of the Telephone Company. The investment associated with common lines is considered jointly used subscriber plant.

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 or Telephone Company stations.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Completed Call

The term "Completed Call" denotes a call in which answer supervision is received from the called location.

CCITT

Consultative Committee for International Telephone and Telegraph.

Cost

Except as provided otherwise in this tariff, the term "cost" denotes all sums and expended directly by the Telephone Company to provide particular facilities and/or services to a user, plus a pro-rata share of the cost to the Telephone Company of its facilities and personnel, including general and administrative costs, used in the provision of the facilities and/or services, plus a reasonable profit.

Customer(s)

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

DTE Backup

An optional customer feature which allows an alternate Data Network Address (DNA) to be designated for a particular CPSN switch termination in case the original is not in service. If the original DNA is out of order, the calling party will be automatically rerouted to the destination indicated by the alternate DNA.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Data Network Address (DNA)

Ten digit address in accordance with CCITT Recommendation X.121 used to identify terminations on a packet switching network.

Data Terminal Equipment (DTE)

Customer premises equipment that transmits and receives data.

Data Transmission (107 Type) Test Line

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

Decibel (db)

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

Decibel Reference Noise C-Message Referenced to 0 (dBrnC)

The term "Decibel Reference Noise C-Message Referenced to 0" denotes noise measurements with C-Message weighting in decibels relative to a reference tone of 90 dB below 1 milliwatt.

Detail Billing

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Direct Call

An optional customer feature which allows a CPSN terminal to be preprogrammed with a called DNA. The CPSN network will reference the preprogrammed DNA at the time of call establishment and connect the customer with that DNA. If the customer chooses to override the Direct Call, a different DNA can be addressed at call set-up.

Display System Protocol (DSP)

End to end protocol description for support of IBM 3270 devices on an X.25 packet data network.

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. It may be utilized when Feature Group A is being used in the terminating direction (from the point of termination with the Customer to the local exchange end office). An office arranged for Dual Tone Multifrequency Signaling would expect to receive address signals from the Customer in the form of Dual Tone Multifrequency signals.

Echo Path Loss (EPL)

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 (TLP).

Echo Return Loss (ERL)

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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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 premises or central office.

800 Service Provider

The term "800 Service Provider" denotes a telecommunications company, including Exchange and Interexchange Carriers, that offer 800 Service to subscribers.

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.

End User

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Entry Switch

See First Point of Switching.

Envelope Delay Distortion (EDD)

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

Equal Level Echo Path Loss (ELEPL)

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

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 that area. The exchange includes any Extended Area Service area that is an enlargement of a Telephone Company's exchange area to include nearby exchanges. One or more designated exchanges comprise a given local access and transport area.

Exchange Termination

Central Office equipment (Modem or Channel Service Unit/Digital Service Unit) required for circuit termination at the switch.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Expected Measured Loss (EML)

The term "Expected Measured Loss" denotes a calculated loss which specified the end-to-end 1004 Hz transducer loss on a terminated test connection between two readily accessible manual or remote test points.

Fast Select

An optional customer feature which allows the user to send and receive up to 128 characters of user data in the call request and call clear packets. Restricted Fast Select prevents call set-up. Unrestricted Fast Select allows call set-up attempts if required.

Firm Order Confirmation Date

The date on which the Telephone Company confirms to the Customer that the requested services can be provided.

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 designated 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 designated premises.

Frequency Shift

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Grandfathered

The term "Grandfathered" denotes station or switching equipment 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 FCC Rules and Regulations.

Holding Time

The duration of a public dial call.

Hub

A Hub is a Telephone Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed may be used to connect three or more Customer designated premises in a multipoint arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.

Hunt Group

An optional customer feature which allows for a grouping of CPSN terminations with a single identifying DNA.

Immediately Available Funds

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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 (ICB)

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

Inserted Connection Loss (ICL)

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

Interexchange Carrier(s) (IC)

The term "Interexchange Carrier(s)" denotes any individual, partnership, association, corporation, or governmental agency or any other entity engaged for hire in intrastate or foreign communication 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 dBs) of the transmitted composite four-tone signal power to the second-order products of the tones (R3).

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Interstate Communications

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

Interstate Service Arrangement

The term "Interstate Service Arrangement" denotes an arrangement provided pursuant to interstate tariffs, contracts, or service arrangement whereby the subscriber who obtains the arrangement permits others to make calls to the telephone number assigned to the arrangement without charges.

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.

Jointly Used Subscriber Plant

The term "Jointly Used Subscriber Plant" denotes the local nontraffic sensitive facilities which provide connection between the Customer's service location and the exchange central office serving the Customer and which may alternatively be used to place exchange service calls, interexchange intrastate service calls, or interexchange interstate service calls with no change in the nature of the facilities.

Kilobits Per Second (Kbps)

One thousand bits per second.

Kilopacket

One thousand packets.

Kilosegment

One thousand segments.

ACCESS SERVICE

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

Local Circuit Facility

Unconditioned copper facility used as the basis for designing a data circuit.

Local Tandem Switch

The term "Local Tandem Switch" denotes a local Telephone Company operating unit by means of which local or access telephonic communications are switched to and from an end office switch.

Logical Channel

A capability which enables one or more calls to be set up on a CPSN access line equipped with X.25 protocol. An X.25 user may subscribe to more than one logical channel per line to allow two or more simultaneous calls to take place.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Loop Around Test Line

The term "Loop Around Test Line" denotes an arrangement of equipment located on the facility between the test location and the remote loop around test unit in an end office which provides a means for making two-way transmission test, on a manual basis. This arrangement has two terminations, each reached by means of a separate seven-digit number and does not include network channel terminating equipment.

Loss Deviation

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

Maintenance Test Unit (MTU)

The term "Maintenance Test Unit" denotes a piece of equipment installed and maintained by the Telephone Company near the end of a transmission path on the central office side of a Customer's premises. Upon proper command, the Maintenance Test Unit can isolate a Customer's wire and terminal equipment from the network loop. It enables remote testing of the transmission path's performance to the MTU.

Market Service Area

See "Local Access Transport Area."

Message

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

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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 designated premises from the Telephone Company end office.

Minutes of Use

See Access Minutes.

Multiline Business Customer

The term "Multiline Business Customer" denotes an End User who is provided with more than one Common Line-business line in a state by the same Telephone Company under the business regulations of the General and/or Local Exchange Service tariffs of the Telephone Company.

Negotiation

An optional customer feature that allows negotiation on a per call basis of the packet size, window size, and throughput class for each direction of data transfer.

Network Control Signaling

The term "Network Control Signaling" denotes the transmission of signals used in the telecommunications system which performs 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 reorder or busy conditions, alerting, coin denominations, coin collect, and coin return tones) to control the operation of the telecommunications system.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Network Processing Charge

A charge, per kilosegment, applied to calls which require packetizing at both the originating and terminating points in the network.

Non-Standard Default Feature

An optional customer feature that permits a customer, at the time of subscription, to specify a nonstandard default throughput class, window size, and packet size for each direction of data transfer.

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 or Number Plan Area (NPA) code and seven-digit telephone number made up of a three-digit Central Office (CO) 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 a.c. open circuit termination of a trunk or line by means of an inductor of several Henries.

ACCESS SERVICE

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 to an IC designated premises.

Packet

A continuous sequence of binary digits of information which is switched through the network as an integral unit. Consists of customer data, facilities and addressing/signaling information.

Packet Assembler/Disassembler (PAD)

A device which performs the function of packetizing and depacketizing data for transmission over a packet switched network. A PAD may be located on the customer premises or in the packet switching central office.

Packet Switch

A central office based switch that establishes a virtual connection between two CPSN DNAs for the transmission of discrete amounts of information. Other than the CPSN access, no dedicated physical transmission path between the two DNAs will exist.

Pay Telephone Line

The term "Pay Telephone Line" denotes a line provided by the Telephone Company for message service through the use of public or semi-public telephones, either coin or coinless, installed by the Telephone Company for the use of the general public.

Permanent Virtual Circuit (PVC)

A virtual circuit through the packet network that is established at service installation and is available on a permanent basis. No call establishment or call termination is associated with a Permanent Virtual Circuit. The PVC feature may be available across X.75 interfaces.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Phase Jitter

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

Point of Termination

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

Premises

The term "Premises" denotes a building or portion(s) of a building including adjacent buildings on the same continuous property not separated by a public thoroughfare.

Primary Exchange Carrier

The term "Primary Exchange Carrier" denotes the Local Exchange Telephone Company in whose exchange a customer's first point of switching (i.e., dial tone office for FGA, access tandem for FGB) is located.

Protocol

A set of rules governing the format to be followed when transmitting information between communicating devices.

Public Telephone

The term "Public Telephone" denotes the use of a pay telephone line at a location, such as at an airport, public building or city street, where a public need exists and the telephone is placed at the option of the Telephone Company and with the agreement of the owner of the property.

Query

The term "Query" denotes the inquiry to a Telephone Company data base to obtain information, processing instructions or service data.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Registered Equipment

The term "Registered Equipment" denotes the Customer's premises equipment which complies with and has been registered with the FCC pursuant to Part 68 of the FCC's Rules and Regulations or which is grandfathered, as defined in this Section 2.6.

Responsible Organization

The term "Responsible Organization" denotes the entity responsible for the management and administration of 800 Data Base Access Service records in the Service Management System according to the Guidelines for 800 Data Base.

Return Loss

The term "Return Loss" denotes a measure of the similarity between the two impedances at the junction of two transmission channels (e.g., four-to-two wire junctions). The higher the return loss, the higher the similarity.

Reverse Charge Blocking

The capability to deny reverse charge (collect) calls from other network users.

Secondary Exchange Carrier

The term "Secondary Exchange Carrier" denotes the Local Exchange Telephone Company in whose exchange a customer's end users and office is located and where the customer's first point of switching is provided by a Primary Exchange Carrier who is not the same Exchange Carrier as the Secondary Exchange Carrier.

Segment

A portion of a packet, defined by the Company as 16 bytes of user data.

Semi-Public Telephone

The term "Semi-Public Telephone" denotes the use of a pay telephone line at a location, such as at a gasoline station, restaurant, or other commercial establishment, where a general public and specific Customer need exists.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Service Management System/800 (SMS/800)

The term "Service Management System/800 (SMS/800)" denotes the main operations support system of 800 Data Base Service. It is used to create and update subscriber 800 records that are then downloaded to SCPs for handling subscribers' 800 calls. The system is also used by 800 Responsible Organizations to reserve and assign 800 numbers.

Serving Wire Center

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

Seven Digit Manual Test Line

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

Short Circuit Test Line

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

Signal-to-C-Notched Noise Ratio

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

Singing Return Loss (SRL)

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.

Single Line Business Customer

The term "Single Line Business Customer" denotes an End User who pays for an End User Common Line at a rate that is not described as a residential rate in the Telephone Company's Local Exchange Service tariffs and who does not obtain more than one such line from the same Telephone Company.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Switch Termination

A line port on a central office based packet switch.

Synchronous

A method of transmission in which information being transmitted over a line is controlled by a timing device.

Synchronous Data Line Control (SDLC)

An IBM data communications protocol.

Synchronous Test Line

The term "Synchronous Test Line" denotes an arrangement in an end office which performs marginal operational test 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 designated premises to an End User.

Throughput Class

The attainable data rate (bits per second) on packet switched data calls.

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.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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 in a two-wire entity such as a central office switch trunk circuit or switching system.

V&H Coordinates Method

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

Virtual Circuit

A communications connection that allows transmission of sequenced data packets through the network. The connection is made up of Logical Channels at the originating and terminating ends of the call as well as intra-network facilities. Transmission bandwidth is only allocated when packets are actually being transmitted.

ACCESS SERVICE

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

WATS Serving Office

The term "WATS Serving Office" denotes a Telephone Company designated serving wire center where switching, screening, and/or recording functions are performed in connection with Special Access service used in connection with Switched Access service.

Window Size

The number of outgoing packets that may be sent before confirmation is received indicating that the previous packets have been successfully received.

Wire Center

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

X.25 Packet Mode Protocol

A synchronous network interface protocol as outlined by the CCITT for transmission within a packet switched network (intra-network).

X.75 Packet Mode Protocol

A synchronous network interface protocol as outlined by the CCITT for transmission between packet switching networks (inter-network).

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions

3.1 Carrier Access Services

(A) There shall be no discounted transitional rate elements applied in Iowa. Except as otherwise specifically set forth in ISUB rules and regulations, no distinction between premium and nonpremium rates will be made. All carriers will be billed rate elements as set forth by the Iowa State Utilities Board in Docket No. RMU-83-33.

(B) Payment Arrangements

(1) All billing to the intrastate customer will be conducted by the Telephone Company.

(2) The charges associated with carrier common line access service will be applied to all carriers, including WATS and FX services, resellers and private system customers and will be billed, collected and retained by the Company.

(3) Where an agreement exists between this Company and another local exchange utility for the provision of originating or terminating interexchange services and/or facilities, and the service is not resold, the terms of the agreement shall apply. Under contractual arrangements, it is anticipated that compensation for access services or facilities will be provided on a settlements basis rather than a direct assessment of intrastate access charges. If no agreement exists, intrastate access charges will apply in accordance with paragraph 2 above.

(C) Application of Provisions

(1) Carrier common line charges will be assessed to all Interexchange Utilities who are provided access services or facilities in any local exchange of this Company in order to provide interexchange communication services to the public. These charges apply to services or facilities used for originating and terminating communications.

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions (Cont'd)

3.1 Carrier Access Services (Cont'd)

(C) Application of Provisions (Cont'd)

(2) Intrastate access to the Company's exchange services or facilities may be obtained by an interexchange utility by ordering and paying for such intrastate access pursuant to the provisions of this tariff. Failure to pay for intrastate access is a direct violation of this company's tariff and applicable Iowa State Utilities Board Rules and Regulations and will be cause for suspension or disconnection of service.

(D) Usage Carrier Common Line Charge

(1) Where usage is based on measurement, intrastate carrier common line charges apply to all carriers for access service including WATS and foreign exchange services and resellers. Usage will be measured for both originating and terminating minutes of use.

(2) Where services of an interexchange utility are resold, the usage carrier common line charge shall be applied to the reseller in accordance with the provisions below.

(a) The reseller will be treated as an interexchange carrier and will be billed on a usage measurement basis.

(b) The interexchange utility will be billed access for that portion of the call which it carries as if no resale is involved.

(c) The reseller will be billed access for the remainder of the charges not billed to the interexchange utility.

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions (Cont'd)

3.1 Carrier Access Services (Cont'd)

(E) Flat Carrier Common Line Charge

(1) Where usage measurement is not feasible, a flat carrier common line charge will apply. This charge will apply to exchange access made by all interexchange utilities, including resale carriers and to private system access.

(2) Where private systems or facilities, that are or can be connected by any means to the intrastate telephone network, are used in conjunction with Company's facilities for the purpose of originating or terminating communications between this Company's exchanges and other exchanges within Iowa, a flat carrier common line charge will apply. However, if the Company is provided with a statement in writing that a private system or facility cannot interconnect and is not interconnected with the intrastate telephone network, no flat carrier common line charge will apply.

(a) Upon any violation of this provision, the Company will terminate telephone service pursuant to the notice and disconnect provisions contained in other tariffs of the Company on file with the Iowa State Utilities Board. The Company will not restore service until ordered to do so by the Board.

(b) Exceptions

(1) Communications made by a person using facilities or services of telephone utilities to which a flat or usage intrastate carrier common line charge applies.

(2) Administrative communications made by or to a telephone utility.

(3) Communications made by a person using facilities or services of telephone utilities which are provided under agreement between the applicable exchange utilities for which access charges do not apply.

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions (Cont'd)

3.1 Carrier Access Services (Cont'd)

(E) Flat Carrier Common Line Charge (Cont'd)

(3) When actual minutes of use are provided to the company, the usage carrier common line charge will apply in lieu of the flat carrier common line charge. The usage rate per access minute, or fraction thereof, will be billed to the customer as set forth in paragraph F.1.a. Charges per line or line equivalent, shall not exceed $25.00 per month.

Terminating per minute charge(s) apply to:

(a) all terminating access minutes of use;

(b) all originating access minutes of use associated with FGA Access Services where the off-hook supervisory signaling is forwarded by the Customer's equipment when the called party answers;

(c) all originating access minutes of use associated with calls placed to 700, 800 series and 900 numbers, less those originating access minutes of use associated with calls placed to 700, 800 series and 900 numbers for which the Customer furnishes for each month a report of either the number of calls or minutes or a report of the percent of calls or minutes that terminate in a Switched Access Service that is assessed Carrier Common Line charges.

When the Customer makes this report available to the Telephone company in advance of billing, these minutes of use will be charged on the current bill as originating minutes of use as set forth in (E) following. If a billing dispute arises concerning the Customer provided report, the Telephone Company will request the Customer to provide the data the Customer used to develop the report. The Telephone Company will not request such data more than once a year. The Customer shall supply the data within thirty (30) days of the Telephone Company request.

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions (Cont'd)

3.1 Carrier Access Services (Cont'd)

(F) Rates and Charges

(1)	Usage carrier common line	Rate	
(a)	Per Originating access minute or fraction thereof (each) – Non 800	$.012443	(C)
(b)	Per Terminating access minute or fraction thereof (each) – Non 800	$.0.0	(C)
(c)	Per Originating access minute or fraction thereof (each) – 800	$.000000	(N) (N)

(2)	Flat carrier common line	Monthly Rate
(a)	Per line or line equivalent	$25.00

3.2 End User Access Service

(A) The Company does not offer the following access line service grades to its customers in Iowa:

Residence	Business
Two Party	Two Party
Four Party	Four Party
Eight Party	Eight Party
Ten Party	Ten Party
Semi-Public	

(B) End user common line rates are not applicable at this time. These rates will not be implemented until such time as ordered by the Iowa State Utilities Board.

ACCESS SERVICE

3. Iowa Intrastate Specific Conditions (Cont'd)

3.3. Switched Access Service

Local Transport

Where the Company provides Local Transport with another local exchange utility to the same IC, settlement arrangements are not provided between companies for the portion of Local Transport that is provided by another company. The Company will calculate mileage for Local Transport to its meet point only and will bill the IC for that portion of Local Transport the Company provides.

Feature Group Conformance

Any interexchange carrier subscribing to Feature Group A, B, C or D service in an exchange of the Company, must use the same type of Feature Group service for both originating and terminating traffic.

ACCESS SERVICE

4. Switched Access Service

4.1 General

Switched Access Service provides a two-point electrical communications path between the Customer's premises and Telephone Company exchange locations. Switched Access Service provides for the use of common terminating, switching and trunking facilities, and jointly used subscriber plant of the Telephone Company's public switched network. Switched Access Service provides for the ability to make and receive intrastate calls to and from Telephone Company exchange locations. It is typically used to originate and terminate MTS, WATS, and MTS/WATS-type services.

Switched Access Service is provided in four Feature Group arrangements. Each arrangement is differentiated by the type of connection (i.e., line side or trunk side) and the access calling pattern (e.g., 950-10XX). A detailed description of the services available with each Feature Group is set forth in Section 4.2. The physical characteristics and transmission performance capabilities for Switched Access Service are contained in Section 4.5. The technical specifications for Entrance Facility are the same as those set forth in Section 5.

Each Switched Access Service Feature Group arrangement has two rate elements: Local Transport, including an Entrance Facility where required and End Office. The services covered by the Local Transport and End Office rate elements are described in Sections 4.1.2(B) and (C), respectively. The charges for these rate elements are set forth in Section 4.7. The Local Transport rates include the charges for services referred to as Access Connections and described in Section 4.1.2(A). There is a minimum monthly charge for Switched Access Service and it is determined in accordance with Sections 4.6.3.

When a Customer changes from one type of Feature Group to another, charges as set forth in Section 4.6.5 shall apply. When a Customer moves to a new location, charges as set forth in Section 4.6.6 shall apply.

When Feature Group A Switched Access is provided, the Customer's bill from the Telephone Company will include a credit for any local message unit charges as set forth in Section 4.6.10.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.1 Feature Group Arrangements

There are four Feature Group arrangements through which Switched Access Service is provided. Following is a brief description of each. More detailed descriptions are set forth in Section 4.2.

(A) Feature Group A (FGA)

FGA Access provides line side access to Telephone Company end office switches with an associated seven digit local telephone number for the Customer's use in originating and terminating communications. Special Access service that is provided for use with FGA connects a customer designated premises with a WATS Serving Office and is available as set forth in Section 4.1.1(D) following. Special Access service, as described in Section 5.2, may be ordered separately by an entity other than the Customer which orders the FGA Switched Access service.

(B) Feature Group B (FGB)

FGB Access provides trunk side access to Telephone Company end office switches with an associated uniform 950-10XX or 950-00XX access code for the Customer's use in originating and terminating communications. Special Access service that is provided for use with FGB connects a customer designated premises with a WATS Serving Office and is available as set forth in 4.1.1(D) following. Special Access service, as described in 5.2, may be ordered separately by an entity other than the customer which orders the FGB Switched Access service.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.1 Feature Group Arrangements (Cont'd)

(C) Feature Group C (FGC)

FGC Access provides trunk side access to Telephone Company end office switches for U S West Telecommunications and AT&T's use in originating and terminating communications. Special Access Service that is provided for use with Feature Group C Switched Access Service connects a customer designated premises with a WATS Serving Office. Special Access Service, as described in Section 5.2, may be ordered separately by an entity other than the Customer which orders the FGC Switched Access Service. Existing FGC Access will be converted to Feature Group D when it becomes available in an end office, or as indicated in Section 4.1.1(E) on the FGC to FGD Conversion schedule.

(D) Feature Group D (FGD)

FGD Access provides trunk side access to Telephone Company end office switches with an associated uniform 10XXX access code for the Customer's use in originating and terminating communications. WATS Access Service is a type of Special Access Service that is provided for use with Feature Group D Switched Access Service. Special Access Service used in connection with Switched Access Service connects a customer designated premises with a WATS Serving Office. Special Access Service, as described in Section 5.2, may be ordered separately by an entity other than the Customer which orders the FGD Switched Access Service. FGD is also available with End User presubscription, as set forth in Section 4.2.4(A)(6) and Section 8. Presubscribing End Users do not need to use the 10XXX access code to access the Customer. The provision of FGD Access is subject to local availability.

Special Access service used in connection with Feature Groups A and B is available in nonequal access offices via FGD as follows:

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.1 Feature Group Arrangements (Cont'd)

(D) Feature Group D (FGD) (Cont'd)

(1) When the end user's serving wire center is not a WATS serving office (WSO) channel mileage charges will apply between the end user's serving wire center and the nearest WSO.

(2) When a customer, other than AT&T, orders an originating only or a combined originating and terminating (two-way) Special Access Line (SAL) to be used in connection with Switched Access Service and the end user's serving wire center is a WSO which is not equipped with equal access, the Telephone Company will provide the Special Access service to the nearest equal access WSO and the channel mileage charges for such service will be waived.

(3) When a customer, other than AT&T, orders an originating only or a combined originating and terminating (two-way) SAL, to be used in connection with Switched Access service and the end user's serving wire center is not a WSO and the nearest WSO is not equipped with equal access, channel mileage charges for a SAL to the nearest WSO will apply as indicated in (1) above, but the Telephone Company will provide an additional SAL to the nearest WSO equipped with equal access and the channel mileage charge for the additional SAL will be waived.

(E) Schedule of Conversion of FGC Access to FGD in Frontier Equal Access End Offices

State	Date of FGC to FGD Conversion
Iowa	N/A

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements

The following diagram depicts a generic view of the components of Switched Access Service and the manner in which the components are combined to provide a complete access service.

CL - Common Line*	-Direct Trunked Transport
EO - End Office	-Direct Trunked Facility
EF - Entrance Facility	-Direct Trunked Termination
	-Tandem Switched Transport
	-Tandem Switched Facility
	-Tandem Switched Termination
	-Tandem Switching

*-CL is referenced in Section 3.1 Carrier Access Services.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(A) Reserved for Future Use

(B) Local Transport

The Local Transport rate category provides the transmission facilities between the Customer designated premises and the end office switch(es) where the Customer's traffic is switched to originate or terminate its communications. For purposes of determining facility measurement mileage, distance will be measured from the wire center that normally serves the Customer's premises to the end office switch(es), which may be a Remote Switching Module(s). Exceptions to the facility measurement mileage measurement rules are set forth in Section 4.6.13 and this Section 4.1.2(B).

The customer must specify when ordering (1) whether the service is directly routed to an end office switch or through an access tandem, (2) the type of Direct Trunked Transport and whether it will overflow to Tandem Switched Transport when service is directly routed to an end office, (3) the type of Entrance Facility, (4) the directionality of the service and (5) when multiplexing is required, the hub(s) at which the multiplexing will be provided.

Local Transport is a two-way voice frequency transmission path composed of facilities determined by the Telephone Company. The two-way voice frequency path permits the transport of calls in the originating direction (from the End User end office switch to the Customer designated premises) and in the terminating direction (from the Customer designated premises to the end office switch), but not simultaneously. The voice frequency transmission path may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(B) Local Transport (Cont'd)

The Customer must specify the choice of facilities (i.e., Voice Grade 2 or 4 wire, or High Capacity DS1 or DS3) to be used in the provision of the Direct Trunked Transport or Entrance Facility.

The design, selection of facilities and traffic routing of Switched Access Service is governed by Section 4.3.2. Local Transport is provided at the rates and charges set forth in Section 4.7.1 and include the cost of Access Connections. The application of Local Transport rates with respect to individual Feature Groups is as set forth in Section 4.6.13.

The Local Transport rate category is made up of four classes of rate elements: Entrance Facility, Direct Trunked Transport, Tandem Switched Transport and Multiplexing.

(1) Entrance Facility

Entrance Facility recovers a portion of the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Entrance Facility is a standard channel interface arrangement which defines the technical characteristics associated with the type of signaling capability, if any.

Three types of Entrance Facility are available: (1) Voice Grade 2 or 4 wire (an analog channel with an approximate bandwidth of 300 to 3000 hz) (2) High Capacity DS1 (an isochronous serial digital channel with a rate of 1.544 Mbps), and (3) High Capacity DS3 (an isochronous serial digital channel with a rate of 44.736 Mbps).

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(B) Local Transport (Cont'd)

(1) Entrance Facility (Cont'd)

One charge applies for each Entrance Facility that is terminated at a customer designated premises. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

At customer request, their Local Transport may be connected to the Entrance Facility of another customer, providing the other customer requests this connection and assumes full responsibility for the cost of the Entrance Facility.

(2) Direct Trunked Transport

The Direct Trunked Transport rate elements recover a portion of the cost associated with the communications path between the serving wire center and the end office on circuits dedicated to the use of a single customer, without switching at a tandem.

Direct Trunk Transport to an end office requires End Office Trunk Port as described in 4.1.2(C)(5) and may require multiplexing as described in 4.1.2(B)(4).

Direct Trunked Transport is available at all end offices except those identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4, as not having the capability to provide Direct Trunked Transport.

Direct Trunked Transport is not available: (1) from end offices that provide equal access through a centralized equal access arrangement, (2) from end offices that lack recording or measurement capability, and (3) for originating 800 calls from non-Service Switching Point (SSP) equipped end offices that can not accommodate direct trunking of originating 800 calls.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(B) Local Transport (Cont'd)

(2) Direct Trunked Transport (Cont'd)

Three types of Direct Trunked Transport are available: (1) Voice Grade (an analog channel with an approximate bandwidth of 300 to 3000 Hz), (2) High Capacity DS1 (an isochronous serial digital channel with a rate of 1.544 Mbps) and (3) High Capacity DS3 (an isochronous serial digital channel with a rate of 44.736 Mbps). The minimum period for which a High Capacity DS3 Direct Trunked Transport is provided is twelve months.

High Capacity DS3 Direct Trunked Transport can not be terminated at end offices that are not identified as hub offices that provide DS3 to DS1 multiplexing. Additionally, DS1 Direct Trunked Transport can not be terminated at end offices that are not identified as hub offices that provide DS1 to Voice Grade multiplexing or are not electronic end offices. Offices that provide multiplexing are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

Direct Trunked Transport rates consist of a Direct Trunked Facility rate which is applied on a per mile basis and a Direct Trunked Termination rate which is applied at each end of each measured segment of the Direct Trunked Facility (e.g., at the end office, hub and serving wire center).

The Direct Trunked Facility rate recovers a portion of the costs of the transmission facilities, including intermediate transmission circuit equipment, between the end points of the interoffice circuits.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(B) Local Transport (Cont'd)

(2) Direct Trunked Transport (Cont'd)

The Direct Trunked Termination rate recovers a portion of the costs of the circuit equipment that is necessary for the termination of each end of the Direct Trunked Facility.

(3) Tandem Switched Transport

The Tandem Switched Transport rate elements recover a portion of the costs associated with the communications path between the serving wire center and the end office on circuits that are switched at a tandem switch. Tandem Switched Transport consists of circuits dedicated to the use of a single customer from the serving wire center to the tandem and circuits used on common by multiple customers from the tandem to the end office. When Tandem Switched Transport to a terminating carrier's end office, and not an end office owned by a Frontier Telephone ILEC Company, the Terminating Tandem 3rd Party and Dedicated Trunk Port rates are applicable. (T) (T)

Tandem Switched Transport rates consist of a Tandem Switching rate, a Tandem Switched Facility rate, and a Tandem Switched Termination rate.

The Tandem Switching rate recovers a portion of the costs of switching traffic through an access tandem. The Tandem Switching rate specified in 4.7.1(B) following is applied on a per access minute per tandem basis for all originating and all terminating minutes of use switched at the tandem. Tandem locations are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(B) Local Transport (Cont'd)

(3) Tandem Switched Transport (Cont'd)

The Tandem Switched Facility rate recovers a portion of the costs of the transmission facilities, including intermediate transmission circuit equipment, between end points of the interoffice circuits. The Tandem Switched Facility rate specified in 4.7.1(B) following is applied on a per access minute per mile basis for all originating and terminating minutes of use routed over this facility.

The Tandem Switched Termination rate recovers a portion of the costs of the circuit equipment that is necessary for the termination of each end of the Tandem Switched Facility. The Tandem Switched Termination rate specified in 4.7.1(B) following is applied on a per access minute basis (for all originating and terminating minutes of use routed over the facility) at each end of each measured segment of Tandem Switched Facility (e.g., at the end office, Feature Group A dial tone office, host office and serving wire center).

(4) Multiplexing

DS3 to DS1 Mulitplexing charges apply when a High Capacity DS3 Entrance Facility or High Capacity DS3 Direct Trunked Facility is connected with High Capacity DS1 Direct Trunked Transport. The DS3 to DS1 multiplexer will convert a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(C) End office

The End Office rate category provides the local end office switching and line termination functions necessary to complete the transmission of Switched Access communications to and from the End Users served by the local end office. The End Office rate category includes the Local Switching, and Information rate elements.

For the usage sensitive elements, i.e., Local Switching, when Feature Group Services terminate in Telephone Company end offices that are not equipped for full time measurement capabilities, a studied average minutes of use (MOU) at a rate per MOU will be billed. In the event usage measurements are missing from full time measurement data, a prorated amount will be calculated for the missing data. This amount will be included with the actual measurement for billing.

End Office functions may, at the option of the Customer, be provided for both interstate and intrastate communications.

(1) Local Switching

The Local Switching rate element provides for the use of end office switching equipment, the terminations for the End User lines terminating in the local end office, and intercept service to the Customer. This rate element includes common line terminations and Special Access Line terminations at the WATS Serving Office. The Special Access Line terminations are differentiated by line side vs. trunk side terminations. In addition there are various types of originating and terminating line side terminations depending on the type of signaling associated with the Special Access Line. Line side terminations are available with either dial pulse or dual tone multifrequency address signaling. The intercept service included in this rate element causes a call to an improper number to be redirected to an operator or a recorded message explaining why the call as dialed was not completed and if possible provides the correct number.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(C) End Office (Cont'd)

(1) Local Switching (Cont'd)

The Local Switching rate element is divided into two distinct categories, i.e., LS1 and LS2. The first category, LS1, provides local dial switching for Feature Groups A and B except for: (1) Feature Group B when utilized to provide MTS/WATS service and (2) Feature Groups A and B used in connection with Special Access in the terminating direction at an equal access WATS Serving Office. The second category, LS2, provides local dial switching for: (1) Feature Groups C and D, (2) for FGB when utilized to provide MTS/WATS service, and (3) for Feature Groups A and B used in connection with Special Access in the terminating direction at an equal access WATS Serving Office.

Where end offices are appropriately equipped, international dialing may be provided as a capability associated with LS2. International dialing provides the capability of switching international calls with service prefix and address codes having more digits than are capable of being switched through a standard FGC and FGD equipped end office.

Rates for LS1 and LS2 are set forth in Section 4.7.2(A). The application of these rates with respect to individual Feature Groups is as set forth in Section 4.6.13. The number of transport terminations provided will be determined in accordance with Sections 4.3.5 and 4.3.6.

Included as part of the Local Switching rate element are various optional features which the Customer can order to meet its specific communications requirements.

(2) Line Termination

(3) Intercept Service

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(C) End Office (Cont'd)

(4) Directory Assistance Information Surcharge

Directory Assistance Information Surcharge rates are assessed to a Customer based on the total number of access minutes, or lines or trunks. Directory Assistance Information Surcharge rates are set forth in Section 4.7.2(C).

The Directory Assistance Information Surcharge applies to each Switched Access minute of use and shall be assessed upon all Customers that use local exchange switching facilities for the provision of intrastate or foreign telecommunications.

(5) End Office Dedicated Trunk Port

The End Office Dedicated Trunk Port rate is assessed on all direct-routed facilities between the serving wire center and the end office terminating in a end office trunk port. The rate is assessed for all Feature Group Services. The rate is billed without application of a meet point billing percentage.

Dedicated End office Port is billed as originating and terminating based on a Percent Originating Usage (POU) factor of 50% (N)

Originating Calculation = PIU x Originating Rate x Quantity x POU

Terminating Calculation = PIU x Terminating Rate x Quantity x (100-POU)

The Access Tandem Trunk Port is billed as a single rate element that does not distinguish between originating and terminating usage. (N)
(M)

(M)
(N)

(M) Item 4.1.2.(D) relocated to page 95.1.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(D) 800 Data Base Access Service (M)

An 800 Carrier Identification Charge is assessed per call to the service provider the call is delivered to in accordance with SMS/800 information residing in the Telephone Company's SCP.

A POTS Translation Charge is assessed per call, in addition to the 800 Carrier Identification Charge, when the POTS number is delivered to the service provider instead of the 800 number in accordance with SMS/800 information residing in the Telephone Company's SCP. The POTS Translation feature is described in 4.2.6(B).

A Call Handling and Destination Feature Charge is assessed to the service provider the call is intended for on a per query basis for each 800 query to the Telephone Company's SCP that utilizes a Call Handling and Destination feature as described in 4.2.6(B). The query rate is assessed for all completed queries whether or not the actual 800 call is delivered to the service provider. (M)

(M) Material relocated from page 95. (N)

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.2 Rate Elements (Cont'd)

(D) (Cont'd)

This charge is in addition to the 800 Carrier Identification Charge and the POTS Translation Charge if applicable. The 800 DB Access Service charges are in addition to the rates and charges for the rate categories described in 3.1 and 4.1.2 (A),(B),(C), which are applicable to all Switched Access Service.

The 800 Data Base Access Service rates are set forth in 4.7.3, following.

4.1.3 Circuit Design Layout

The Telephone Company will provide the Customer at its request a Design Layout Report (DLR) setting forth the makeup of and the facilities and services provided to the first point of switching. The DLR will be provided to the Customer at no additional charge. The information in the DLR will be updated whenever facilities provided to the Customer are materially changed.

4.1.4 Acceptance Testing

The Telephone Company will, at the Customer's request and at no additional charge, cooperatively test, at the time of installation, the following parameters: loss, three-tone slope d.c. continuity, c-notched noise, and operational signaling. When the Access Connection is provided with Interface Groups 2 through 10 and the transport termination is two-wire (i.e., there is a four-wire to two-wire conversion in Local Transport), balance parameters (equal level echo path loss) will also be tested, if requested by the Customer.

When 900 NXXs are opened (new translations installed) by the Telephone Company, the testing will be performed by the Telephone Company. For each new NXX installed from an equal access end office, the Telephone Company shall place one test call to the new 900-NXX-XXXX test number. This number provides an announcement identifying the IC, thereby verifying Telephone Company routing. From a NonConforming End Office for offices subtending an Access Tandem that performs 900 NXX six digit translations, one Non-Conforming End Office will have a call through test to the new 900-NXX-XXXX test number by the Telephone Company.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.1 General (Cont'd)

4.1.5 Special Facilities Routing

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

4.1.6 Ordering Options and Conditions

A Facilities Access Order is the vehicle by which the Customer orders, changes, and discontinues Switched Access Service. The conditions under which the Facilities Access Order can be utilized are set forth in Section 9.

4.2 Provision and Description of Switched Access Service Feature Groups

Switched Access Service is provided in four different Feature Group arrangements. The provision of each Feature Group requires Local Transport facilities and the appropriate End Office functions. In addition, Special Access Lines may, at the option of the Customer, be provided for use with Feature Groups A, B, C, or D.

Two specific standard transmission performances are provided for the Feature Groups (i.e., Types B and C). The specific performance required is dependent on the Interface Group and the routing of the service, i.e., whether the service is routed directly to the end office or via an access tandem. The parameters for the transmission performances are set forth in Section 4.5.1.

In addition, Data Transmission Parameters are available, on an optional basis, with the ten (10) Interface Groups. The Data Transmission Parameters are set forth in Section 4.5.2.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

Feature Groups are arranged for either originating, terminating, or two-way calling. The Telephone Company will determine the directionality of calling provided, unless the Customer specifies in its order the type of directionality to be provided. Originating calling permits the delivery of calls from Telephone exchange locations to the Customer designated premises. Terminating calling permits the delivery of calls from the Customer designated premises to Telephone exchange locations. Two-way calling permits the delivery of calls in both directions, but not simultaneously. Design, selection of facilities, and traffic routing are governed by Section 4.3.2.

In addition to Customer specification of Feature Group directionality, there are various optional features available with the Feature Groups.

Following are detailed descriptions of each of the available Feature Groups. Each Feature Group is described in terms of its specific physical characteristics and calling patterns, the transmission performances with which it is provided, optional features available and the standard testing capabilities. The optional features are offered at Telephone Company end office switches where facilities are available.

4.2.1 Feature Group A (FGA)

(A) Description

(1) FGA is provided in connection with all Telephone Company end offices. It is provided on a single or multiple line group basis. FGA is arranged for use by a Customer in the provision of its FX/ONAL service, MTS/WATS-type service, a Customer provided interstate capability, or for connection to an interexchange carrier's interstate service.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.1 Feature Group A (FGA) (Cont'd)

(A) Description (Cont'd)

(2) FGA provides a line side termination at the first point of switching. The line side termination will be provided, at the option of the Customer, with either ground start supervisory signaling or loop start supervisory signaling.

(3) The Telephone Company shall select the first point of switching at which the line side termination is to be provided unless the Customer requests a different first point of switching and Telephone Company facilities and measurement capabilities, where necessary, are available to accommodate such request.

(4) A seven digit local telephone number assigned by the Telephone Company is provided for access to FGA switching in the originating direction. The seven digit local telephone number will be associated with the selected end office switch and is of the form NXX-XXXX. If the Customer requests a specific seven digit telephone number that is not currently assigned, and the Telephone Company can, with reasonable effort, comply with that request, the requested number will be assigned to the Customer.

(5) FGA switching, when used in the terminating direction, is arranged with dial tone start-dial signaling and dial pulse address signaling. When used in the terminating direction FGA switching may, at the option of the Customer, be arranged for dual tone multifrequency address signaling, subject to availability of equipment at the first point of switching. When FGA switching is provided in a hunt group or uniform call distribution arrangement, all FGA switching must be arranged for the same type of address signaling.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.1 Feature Group A (FGA) (Cont'd)

(A) Description (Cont'd)

(6) No address signaling is provided by the Telephone Company when FGA switching is used in the originating direction. Address signaling in such cases, if required by the Customer, must be provided by the Customer's End User using inband tone signaling techniques. Such inband tone address signals will not be regenerated by the Telephone Company and will be subject to the ordinary transmission capabilities of the Access Connections and Local Transport provided.

(7) FGA switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, local operator service, Information (411 and 555-1212), emergency reporting service , exchange telephone repair, time or weather announcement services of the Telephone Company, community information services of the Telephone Company, community information services of an information service provider, and other Customers' services (by dialing the appropriate digits). The Customer will be billed for (a) an operator surcharge for local operator assistance calls; (b) charges for calls to certain community information services, e.g., DIAL-IT Network Services, and (c) Customer call charges in accordance with the rates in force when the Telephone Company performs the billing for such Customer calls.

(8) When a FGA switching arrangement for an individual Customer (a single line or entire hunt group) is discontinued at an end office, a regular number intercept announcement is provided. This arrangement provides, for a limited period of time, an announcement that the service associated with the number dialed has been disconnected.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.1 Feature Group A (FGA) (Cont'd)

(A) Description (Cont'd)

(9) FGA will be provisioned over an Entrance Facility from the customer's premises to the customer's serving wire center.

FGA service, when used in the originating direction, will be provisioned as Direct Trunked Transport from the first point of switching (i.e., the end office switched where FGA switching dial tone is provided) to the customer's wire center.

FGA service, when used in the terminating direction, will be provisioned as Direct Trunked Transport from the customer's serving wire center to the first point of switching and provisioned as Tandem Switched Transport from the first point of switching to the teriminating end office.

(B) Optional Features - (Subject to Local Availability)

(1) Hunt Group Arrangement
(2) Nonhunting Number for Use with Hunt Group Arrangement
(3) Call Restriction
(4) Service Code Denial
(5) Uniform Call Distribution Arrangement
(6) Nonhunting Number for Use with Uniform Call Distribution Arrangement
(7) Customer Specification of Feature Group Directionality

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.1 Feature Group A (FGA) (Cont'd)

(C) Transmission Performance

FGA is provided with either Type B or Type C Transmission Performance. The parameters associated with these performance criteria are guaranteed to the first point of switching. Type C Transmission Performance is provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. In addition, Data Transmission Parameters may, at the option of the Customer, be provided with FGA to the first point of switching. Type DB Data Transmission Parameters are provided with FGA. Standard Transmission Performance is described in Section 4.5.1.

(D) Testing Capabilities

FGA is provided, in the terminating direction, with access to balance (100 type) test line and milliwatt (102 type) test line. Additional testing available as set forth in Section 8.

4.2.2 Feature Group B (FGB)

(A) Description

(1) FGB is provided at appropriately equipped Telephone Company switches as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is provided with wink start start-pulsing signals and answer and disconnect supervisory signaling. The provision of FGB Access is subject to local availability.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.2 Feature Group B (FGB) (Cont'd)

(A) Description (Cont'd)

(2) FGB switching is provided with multifrequency address signaling in both the originating and terminating directions. Except for FGB switching provided with the automatic number identification (ANI) or rotary dial station signaling arrangements as set forth in Section 4.2.5, any other address signaling in the originating direction, if required by the Customer, must be provided by the End User using inband tone signaling techniques. Such inband tone address signals will not be regenerated by the Telephone Company and will be subject to the ordinary transmission capabilities of the Access Connections and Local Transport provided.

(3) The access code for FGB switching is a uniform access code. The form of the uniform access code is 1-950-10XX, 1-950-00XX, 950-10XX, or 950-00XX for Customers. One uniform access code will be assigned to the Customer for its domestic communications and one uniform access code will be assigned to the Customer for its international communications, if required. These uniform access codes will be the assigned access numbers of all FGB Switched Access Service provided to the Customer by the Telephone Company.

(4) FGB switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, community information services of an information service provided and other Customers' services (by dialing the appropriate digits). When directly routed to an end office, only those valid NXX codes served by that end office may be accessed. When routed through an access tandem, only those valid NXX codes served by end offices subtending the access tandem may be accessed. The Customer will be billed charges for calls to certain community information services e.g., DIAL-IT Network Service. Calls in the terminating direction will not be provided to 950-10XX or 950-00XX access codes, local operator assistance,

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.2 Feature Group B (FGB) (Cont'd)

(A) Description (Cont'd)

(4) (Cont'd)

Information (411 or 555-1212), or service codes (611 or 911) where available. Calls will be completed to Information (NPA-555-1212 or 555-1212) when FGB switching is combined with Information service.

(5) The Telephone Company will establish a trunk group or groups for the Customer at end office switches or access tandem switches where FGB switching is provided. When required by technical limitations, a separate trunk group will be established for each type of FGB switching arrangement provided. Different types of FGB or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company.

(6) When all FGB switching arrangements are discontinued at an end office, a regular number intercept announcement is provided. This arrangement provides, for a limited period of time, an announcement that the service associated with the number dialed has been disconnected.

(B) Optional Features - (Subject to Local Availability)

(1) Automatic Number Identification (ANI)
(2) Rotary Dial Station Signaling Trunk
(3) Up to 7 Digit Outpulsing of Access Digits to Customer
(4) Alternate Traffic Routing
(5) Customer Specification of Feature Group Directionality
(6) Provision of Other Than Telephone Company Selected Traffic Routing

(C) Transmission Performance

FGB is provided with either Type B or Type C Transmission Performance. The parameters associated with these performance criteria are guaranteed to the end office when routed directly or to the first point of switching when routed via an access tandem. Type C Transmission Performance is

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.2 Feature Group B (FGB) (Cont'd)

(C) Transmission Performance (Cont'd)

provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. In addition, Data Transmission Parameters may, at the option of the Customer, be provided with FGB to the first point of switching. Type DB Data Transmission Parameters are provided with FGB. Standard Transmission Performance is described in Section 4.5.1.

(D) Testing Capabilities

Where equipment is available, FGB is provided in the terminating direction with access to balance (100 type) test line, transmission measuring and noise checking (104 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, loop around test line, short circuit test line, and open circuit test line. Additional testing available as set forth in Section 8.

4.2.3 Feature Group C (FGC)

(A) Description

(1) FGC is provided at all Telephone Company and office switches on a direct trunk basis or via Telephone Company designated access tandem switches. FGC switching is provided to US West and AT&T at an end office switch. Originating FGC Access is available to all customers when used to provide the Interim 800 Translation optional feature or 900 Access Service optional feature.

(2) FGC is provided as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is signal. Wink start start-pulsing signals are provided in all offices where available. In those offices where wink start start-pulsing signals are not available, delay dial start-pulsing signals will be provided.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.3 Feature Group C (FGC) (Cont'd)

(A) Description (Cont'd)

(3) FGC is provided with multifrequency address signaling except in certain electromechanical end office switches where mutlifrequency signaling is not available. In such switches, revertive pulse, or panel call indicator signaling, whichever is available. Up to 12 digits of the called party number dialed by the End User using dual tone multifrequency or dial pulse address signals will be provided by designated premises where the Switched Access Service terminates. Called party number signals will be subject to the ordinary transmission capabilities of the Access Connections and Local Transport provided.

(4) The telephone number dialed by the End User may be a 7 or 10 digit number for calls in the North American Numbering Plan (NANP). For international calls outside the NANP, a 5 to 12 digit number may be dialed. The form of the numbers dialed may be NXX-XXXX, 0 or 1 + NXX-XXXX, NPA + NXX-XXXX, 0 or 1 + NPA + NXX-XXXX, and, when the end office is equipped for International Direct Distance Dialing (IDDD), 01 + CC + NN or 011 + CC + NN.

(5) FGC switching when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, community information services of an information provider, and other Customers' services (by dialing the appropriate codes) when the services can be reached using valid NXX codes. When directly routed to an end office, only those valid NXX codes served by that office may be accessed. When routed through an access tandem only those valid NXX codes served by offices subtending the access tandem may be accessed. The Customer will be billed charges for calls to certain community information services, e.g., DIAL-IT Network Services. Calls in the terminating direction will not be provided to 950-10XX, 950-00XX, or 10XXX access codes, local operator assistance, Information (411 or

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.3 Feature Group C (FGC) (Cont'd)

(A) Description (Cont'd)

(5) (Cont'd)

555-1212) or service codes (611 or 911) where available. Calls will be completed to Information (NPA-555-1212 or 555-1212) when FGC switching is combined with Information service.

(6) The Telephone Company will establish a trunk group or groups at end office switches or access tandem switches where FGC switching is provided. When required for technical limitations, a separate trunk group will be established for each type of FGC switching arrangement provided. Different types of FGC or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company.

(B) Optional Features - (Subject to Local Availability)

(1) Automatic Number Identification (ANI)
(2) Service Class Routing
(3) Dial Pulse Address Signaling
(4) Revertive Pulse Address Signaling
(5) Panel Call Indicator Address Signaling
(6) Alternate Traffic Routing
(7) Trunk Access Limitation
(8) Operator Trunks - i.e., Coin, Non-Coin, and Combined Coin and Non-Coin.
(9) Customer Specification of Feature Group Directionality
(10) Provision of Other Than Telephone Company Selected Traffic Routing.
(11) End Office End User Line Service Screening for use with Special Access Service
(12) Hunt Group Arrangement for use with Special Access Service
(13) Uniform Call Distribution Arrangement for use with Special Access Service
(14) Nonhunting Number for use with Hunt Group Arrangement or Uniform Call Distribution Arrangement for use with Special Access Service
(15) Band Advance Arrangement for use with Special Access Service
(16) 900 Access Service

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.3 Feature Group C (FGC) (Cont'd)

(C) Transmission Performance

FGC is provided with either Type B or Type C Transmission Performance as follows:

When routed directly to the end office either Type B or Type C is provided.

- When routed to an access tandem only Type B is provided.

- Type B or Type C is provided on the transmission path from the access tandem to the end office.

- Type C Transmission Performance is provided with Interface Group 1 when routed directly to an end office. Type B is provided with Interface Groups 2 through 10, whether routed directly to an end office or to an access tandem.

In addition, Data Transmission Parameters may, at the option of the Customer, be provided with FGC as follows:

- Type DA Data Transmission Parameters are provided for the transmission path between the Customer designated premises and the access tandem and between the access tandem and the end office.

- Type DB Data Transmission Parameters are provided for the transmission path when directly routed to the end office.

(D) Testing Capabilities

Where equipment is available, FGC is provided in the terminating direction with access to balance (100 type) test line, transmission measuring and noise checking (104 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, loop around test line, short circuit test line, and open circuit test line. Additional testing available as set forth in Section 8.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.4 Feature Group D (FGD)

(A) Description

(1) FGD is provided at Telephone Company designated electronic end office switches whether routed directly or via Telephone Company designated electronic access tandem switches. The provision of FGD Access is subject to local availability. Originating FGD Access is available to all customers when used to provide 900 Access Service optional feature.

(2) FGD is provided as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is provided with answer and disconnect supervisory signaling and wink start start-pulsing signals.

(3) FGD is provided with multifrequency address signaling. Up to 12 digits of the called party number dialed by the Customer's End User using dual tone multifrequency or dial pulse address signals will be provided by Telephone Company equipment to the Customer's premises where the Switched Access Service terminates. Such address signals will be subject to the ordinary transmission capabilities of the Access Connections and Local Transport provided.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.4 Feature Group D (FGD) (Cont'd)

(A) Description (Cont'd)

(4) FGD switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, and other Customers' services (by dialing the appropriate codes) when such services can be reached using valid NXX codes. When directly routed to an end office, only those valid NXX codes serviced by the office may be accessed. When routed through an access tandem, only those valid NXX codes served by end offices subtending the access tandem may be accessed. The Customer will be billed additional Non-Access charges for calls to certain community information services, for which rates are applicable under Telephone Company Exchange service tariffs, e.g., DIAL-IT Network Service. Additionally, non-access charges will also be billed for calls from a FGD trunk to another Customer's service in accordance with that Customer's applicable service rates when the Telephone Company performs billing for that Customer. Calls in the terminating direction will not be provided to 950-10XX, 950-00XX, or 10XXX access codes, local operator assistance (0- and 0+), Information (411 or 555-1212) or other service codes (611 and 911 where available). Calls will be completed to Information service (NPA-555-1212 or 555-1212) when FGD switching is combined with Information service. FGD may not be switched, in the terminating direction, to Switched Access Service Feature Groups B, C, or D.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.4 Feature Group D (FGD) (Cont'd)

(A) Description (Cont'd)

(5) The Telephone Company will establish a trunk group or groups for the Customer at end office switches or access tandem switches where FGD switching is provided. When required by technical limitations, a separate trunk group will be established for each type of FGD switching arrangement provided. Different types of FGD or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company.

(6) The access code for FGD switching is a uniform access code of the form 10XXX. No 950-10XX, 950-00XX, or 10XXX access code is required for calls to a Customer over FGD Switched Access Service if the End User's telephone exchange service is arranged for presubscription to that Customer, as set forth in Section 8. The telephone number dialed by the End User shall be a seven or ten digit number for calls in the North American Numbering Plan (NANP). For international calls outside the NANP, a seven to twelve digit number may be dialed. Where no 950-10XX or 950-00XX access code is required, the form of the called party numbers dialed by the End User is 0 or 1 + NXX-XXXX, 0 or 1 + NPA - NXX-XXXX, and when the end office is equipped for International Direct Distance Dialing (IDDD), 01 + CC +NN or 011 + CC + NN. When the 10XXX access code is used, FGD switching also provides for dialing the digit 0 for access to the Customer's operator. A single 10XXX access code will be the assigned number of all FGD Access provided to the Customer by the Telephone Company.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.4 Feature Group D (FGD) (Cont'd)

(A) Description (Cont'd)

(7) FGD also may be used to recognize originating calls where the Customer permits its End Users to use a personal identification number (PIN) when dialing 10XXX to access the Customer's terminal. Upon receipt of a tone the End User will input his PIN and the called party number. Depending on the Customer's capability, he may or may not receive an acknowledgement tone after dialing the PIN. This dialing method is available only to End Users with DTMF address signaling. There is no additional charge for this dialing capability.

(B) Optional Features - (Subject to Local Availability)

(1) Automatic Number Identification (ANI) to Customer Switching for recording when the Customer performs the billing
(2) Automatic Number Identification (ANI) to the Telephone Company for recording when the Telephone Company performs the billing
(3) Service Class Routing
(4) Alternate Traffic Routing
(5) Trunk Access Limitation
(6) International Carrier Option (available only at Telephone end office or access tandem switches equipped for International Direct Distance Dialing)
(7) Specification of Feature Group Directionality
(8) End Office Customer Line Service Screening (available only at electronic end offices and other Telephone Company end offices where equipment is available)
(9) Hunt Group Arrangement for access lines used in conjunction with Special Access Service
(10) Uniform Call Distribution Arrangement for access lines used in conjunction with Special Access Service
(11) Nonhunting Number for use with Hunt Group Arrangement or Uniform Call Distribution Arrangement for use with Special Access Service
(12) Band Advance Arrangement for use with Special Access Service
(13) Interim 800 Translation
(14) 900 Access Service

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.4 Feature Group D (FGD) (Cont'd)

(C) Transmission Performance

FGD is provided with either Type A, Type B or Type C Transmission Performance as follows:

- When routed directly to the end office either Type B or Type C is provided.
- When routed to an access tandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.
- Type C Transmission Performance is provided with Interface Group 1. Type A and B Transmission Performance is provided with Interface Groups 2-10.

In addition, Data Transmission Parameters may, at the option of the Customer, be provided with FGD as follows:

- Type DA Data Transmission Parameters are provided for the transmission path between the Customer's premises and the access tandem and between the access tandem and the end office when routed via an access tandem.
- Type DB Data Transmission Parameters are provided for the transmission path when directly routed to the end office.

(D) Testing Capabilities

Where equipment is available, FGD is provided in the terminating direction with seven digit access to balance (100 type) test line, milliwatt (102 type) test line, loop around test line, short circuit test line, and open circuit test line. Additional testing available as set forth in Section 8.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features

(A) Call Denial on Line or Hunt Group Outside the Access Area

This option allows for the screening of terminating calls and for completion only of calls within the Access Area. All other calls are routed to an appropriate access announcement. Specifically, this option would block terminating calls to the following:

- Outside the Access Area, dialed as either 7D, 10D, 1+7D, 1+10D, 950-XXX, 10XXX+7D or 10XXX+10D.
- Service Access Codes (700, 800 and 900).
- International, dialed as either 011 or 01.
- Operator, dialed as either 0+, or 00.

This arrangement is available with FGA in those offices where such capabilities exist. Blocking of the 800 Service Access Code may not be available in all end offices where this arrangement is otherwise available.

(B) Call Restriction

This option allows for the screening of terminating calls and for the completion only of calls to a Telephone Company specified set of service codes and NXXs within the Telephone Company local exchange calling area of the dial tone office in which the arrangement is provided. All other "toll" calls are routed to a reorder tone or recorded announcement. It is available with Feature Group A only in those offices where such capabilities exist.

(C) Service Code Denial on Line or Hunt Group

This option allows for the screening of terminating calls and for disallowing completion of calls to 0- and N11. It is available with Feature Group A only in those office where such capabilities exist.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(D) Hunt Group Arrangement

This option provides the ability to sequentially access one of two or more line side connections in the originating direction, when the access code of the line group is dialed. This feature is provided in all Telephone Company end offices. It is available with Feature Group A.

(E) Nonhunting Number for Use with Hunt Group Arrangement

This option provides an arrangement for an individual line within a multiline hunt group that provides access to that line within the hunt group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed. It is available with Feature Group A only in those offices where such capabilities exist.

(F) Uniform Call Distribution Arrangement

This option provides a type of multiline hunting arrangement which provides for an even distribution of calls among the available lines in a hunt group. It is available with Feature Group A only in those offices where such capabilities exist.

(G) Nonhunting Number for Use with Uniform Call Distribution Arrangement

This option provides an arrangement for a uniform call distribution multiline hunt group that provides access to an individual line within the hunt group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed. It is available with Feature Group A only in those offices where such capabilities exist.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(H) Automatic Number Identification (ANI)

This option provides the automatic transmission of a three, seven or ten digit number and information digits to the Customer designated premises for calls to identify the calling station. The ANI feature, which is a software function, will be associated with all individual transmission paths in a trunk group when this feature is provided. The seven digit ANI telephone number is available with Feature Groups B and C. It will be transmitted on all calls except those identified as multi-party line or ANI failure.

The three digit ANI NPA is available with 800 data base service.

The ten digit ANI telephone number is available only with FGD. The ten digit ANI telephone number consists of the Numbering Plan Area (NPA) plus the seven digit ANI telephone number. The ten digit ANI telephone number will be transmitted on all calls except those identified as multi-party line or ANI failure, in which case only the NPA will be transmitted (in addition to the information digit described below).

With Feature C, ANI is provided from end offices at which Telephone Company recording for end user billing is not provided, or where it is not required, as with 800 Service. It is not provided from end offices for which the Telephone Company needs to forward ANI to its recording equipment.

Where ANI cannot be provided, e.g., on calls from 4 and 8 party services, information digits will be provided to the Customer.

When 800 DB Service is ordered, the ten-digit ANI telephone number will be transmitted on all calls except those where ANI cannot be provided as stated above or from end offices not equipped to provide ANI. In these instances, only the three-digit NPA and the information digits described in the LATA Switching Systems Generic Requirements (LSSGR), Technical Reference PUB TR-TSY-000064, if applicable, will be transmitted.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(I) Up to 7 Digit Outpulsing of Access Digits to Customer

This option provides for the end office capability of providing up to seven (7) digits of the uniform access code (950-10XX or 950-00XX) to the Customer designated premises. The Customer can request that only some of the digits in the access code be forwarded. The access code digits would be provided to the Customer designated premises using multi-frequency signaling, and transmission of the digits would precede the forwarding of ANI if that feature were provided. It is available with Feature Group B.

(J) Revertive Pulse Address Signaling

This option provides for a dc pulsing arrangement that transmits intelligence in the following manner:

(1) The equipment at the originating location presets itself to represent the number of pulses required and to count the pulses received from the terminating location. (2) The equipment at the terminating location transmits a series of pulses by the momentary grounding of its battery supply until the originating location breaks the dc path to indicate that the required number of pulses has been counted.

This option is available only with Feature Group C.

(K) Dial Pulse Address Signaling

This option provides for the transmission of number information, e.g., called number, between the end office switching system and the Customer's designated premises (in either direction) by means of direct current pulses. It is available with Feature Groups C and D.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(L) Panel Call Indicator Address Signaling

This option provides a dc pulsing arrangement in which each digit is transmitted as a series of four marginal and polarized impulses. It is available only with Feature Group C.

(M) Service Class Routing

This option provides the capability of directing originating traffic from an end office to a trunk group to a Customer designated premises, based on the line class of service (e.g., coin, multiparty or hotel/motel), service prefix indicator (e.g., 0-, 0+, 01+, or 011+) or service access code (e.g., 600, 700, 800, or 900). It is provided in suitably equipped end office or access tandem switches and is available with Feature Groups C and D.

(N) Alternate Traffic Routing

This option provides the capability of directing originating traffic from an end office (or appropriately equipped access tandem) to a trunk group (the "high usage" group) to a Customer designated premises until that group is fully loaded, and then delivering additional originating traffic (the "overflowing" traffic) from the same end office or access tandem to a different trunk group (the "final" group) or to the same or a second Customer designated premises. The Customer shall specify the last trunk CCS desired for the high usage group. It is provided in suitably equipped end offices or access tandem switches and is available with Feature Groups B, C, and D.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(O) Trunk Access Limitation

This option provides for the routing of originating 600, 700, 800, or 900 Service calls to a specified number of transmission paths in a trunk group, in order to limit (choke) the completion of such traffic to the Customer. Calls to the designated services which could not be completed over the subset of transmission paths in the trunk group, i.e., the choked calls, would be routed to reorder tone. It is provided in all Telephone Company electronic end offices and where available in electromechanical end offices. It is available with Feature Groups C and D.

(P) Dual Tone Multifrequency Address Signaling

This option allows reception of called party address signals from the Customer in the form of dual tone multifrequency (DTMF) signals. When Feature Group A arrangements are provided as part of a hunt group or uniform call distribution group, and the Customer requires DTMF address signaling, then all arrangements in the hunt group or uniform call distribution group will be so equipped. This option is provided in the form of a specific type of termination. It is available with Feature Group A.

(Q) Rotary Dial Station Signaling

This option provides for the transmission of called party address signaling from rotary dial stations to the Customer designated premises for originating calls. This option is provided in the form of a specific type of transport termination. It is available with Feature Group B.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(R) Operator Trunk - Coin

This option provides for initial coin return control and routing of 0+, 0-, 1+, 01+, or 011+ prefixed originating coin calls requiring operator assistance on a direct trunk basis. Because operator assisted coin calling traffic is routed over a trunk group dedicated to operator assisted calls this feature is only provided in association with the service class routing option set forth in Section 4.2.5(L).

The operator assistance coin calling feature is also normally ordered in conjunction with the ANI optional feature.

This option is available with Feature Groups C and D and is provided in electromechanical end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of termination.

(S) Operator Trunk - Non-Coin

This option provides for the routing of 0+, 0-, 1+, 01+, or 011+ prefixed originating non-coin calls requiring operator assistance on a direct trunk basis. Because operator assisted non-coin calling traffic is routed over a trunk group dedicated to operator assisted calls, this feature is only provided in association with the service class routing option set forth in Section 4.2.5(L).

The operator assistance non-coin calling feature is also normally ordered in conjunction with the ANI optional feature. When so equipped, the ANI feature provides for the forwarding of information digits which identify that the call has originated from a hotel or motel, and whether room number identification is required, or that special screening is required, e.g., for coinless public stations, dormitory or inmate stations, or other screening arrangements agreed to between the Customer and the Telephone Company. This option is available with Feature Groups C and D and is provided in electromechanical end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of termination.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(T) Operator Trunk - Combined Coin and Non-Coin

This option provides for initial coin return control and routing of 0+, 0-, 1+, 01+, or 011+ prefixed originating operator assisted coin and non-coin calls requiring operator assistance on a direct trunk basis. Because operator assisted coin and non-coin calling traffic is routed over a trunk group dedicated to operator assisted calls, this feature is only provided in association with the service class routing option set forth in Section 4.2.5(L).

This option is normally ordered in conjunction with the ANI optional feature. When so equipped, the ANI optional feature provides for the forwarding of information digits which identify that the call has originated from a hotel or motel, and whether room number identification is required, or that special screening is required, e.g., for coinless public stations, dormitory or inmate stations, or other screening arrangements agreed to between the Customer and the Telephone Company. This option is available with Feature Groups C and D and is provided in electromechanical end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of termination.

(U) International Carrier Option

This option allows for Feature Group D end offices to access tandem switches equipped for international Direct Distance Dialing to be arranged to forward the international calls of one or more carriers to the customer (i.e., the Telephone Company is able to route originating international calls to a customer other than the one designated by the end user either through presubscription or 10XXX dialing). This arrangement requires provision of written verification to the Telephone Company that the customer is authorized to forward such calls. The written verification must be in the form of a letter of agency authorizing the customer to order the option on behalf of the carrier. This option is only provided at Telephone Company end offices or access tandems equipped for International Direct Distance Dialing and is available only with Feature Group D.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(V) Band Advance Arrangement for Use with Special Access Service

This option, which is provided in association with two or more Special Access Service groups, provides for the automatic overflow of terminating calls to a Special Access Service group, when that group has exceeded its call capacity, to another Special Access Service group with a band designation equal to or greater than that of the overflowing Special Access Service group. This arrangement does not provide for call overflow from a group with a higher band designation to one with a lower one. This option is available with Feature Groups C and D. This option provides the ability to verify that an End User has dialed a called party address (by screening the called NPA and/or NXX on the basis of geographical bands selected by the Telephone Company) which is in accordance with that End User's service agreement with the Customer, e.g., WATS. This option is provided in all Telephone Company electronic end offices and, where available, in electromechanical end offices in which Special Access service is provided. It is available with Feature Groups C and D.

(W) Uniform Call Distribution Arrangement for Use with Special Access Service

This option provides a type of multiline hunting arrangement which provides for an even distribution of terminating calls among the available Special Access Lines in the hunt group. Where available, this feature is only provided in Telephone Company electronic end offices in which Special Access service is provided.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(X) Hunt Group Arrangement for Use with Special Access Service

This option provides the ability to sequentially access one of two or more Special Access Lines (e.g., 800 Service access lines) in the terminating direction, when the hunting number of the Special Access Service group is forwarded from the Customer to the Telephone Company. This feature is provided in all Telephone Company end offices in which Special Access service is provided. This option provides an arrangement for an individual Special Access Service within a multiline hunt or uniform call distribution group that provides access to that Special Access Service within the hunt or uniform call distribution group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed. Where available, this feature is only provided in Telephone Company electronic end offices in which Special Access Service are provided.

(Y) Uniform Call Distribution Arrangement for Use With Special Access Service

This option provides a type of multiline hunting arrangement which provides for an even distribution of terminating calls among the available Special Access Lines in the hunt group. Where available, this feature is only provided in Telephone Company electronic end offices in which Special Access service is provided.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(Z) Nonhunting Number for Use with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service

This option provides an arrangement for an individual Special Access services within a multiline hunt or uniform call distribution group that provides access to that Special Access Service within the hunt or uniform call distribution group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed. Where available, this feature is only provided in Telephone Company electronic end offices in which Special Access Services are provided.

(AA) Intrastate Carrier Option

This option allows for Feature Group D end office or access tandem switches to forward intrastate calls of one or more carriers to the customer (i.e. the Telephone Company is able to route originating intrastate calls to a customer other than the one designated by the end user either through presubscription or 10XXX dialing). This arrangement requires provision of written verification to the Telephone Company that the customer is authorized to forward such calls. The written verification must be in the form of a letter of agency authorizing the customer to order the option on behalf of the carrier. This option is only provided at Telephone Company end offices or access tandems equipped with Feature Group D.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.5 Optional Features (Cont'd)

(AB) End Office End User Line Service Screening for Use with Special Access Service.

This option provides the ability to verify that an End User has dialed a called party address (by screening the called NPA and/or NXX on the basis of geographical band selected by the Telephone Company) which is in accordance with that End User's service agreement with the Customer, e.g., WATS. This option is provided in all Telephone Company electronic end offices and, where available, in electromechanical end offices in which Special Access service is provided. It is available with Feature Groups C and D.

(AC) Abbreviated Dialing Arrangement (ADA)

ADA enables end users to utilize a one or two digit access code to access customers who have ordered this option. ADA is only provided by direct routing to an end office switch. The forms of the access code for originating ADA switching are N or NX *. Assignment of ADA access codes will be on a first come, first served basis and are subject to the availability of access code numbers. Calls in the terminating direction will not be completed with an ADA access code (N and NX). ADA is available only in conjunction with trunk-side access.

* The abbreviations N and NX when used in the context of FGB ADA denotes the following; N signifies a number between 2 and 9, and X signifies a number between 0 and 9.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.6 800 Data Base Access Service

(A) Description

800 Data Base (800 DB) Access Service is an originating service utilizing Trunkside Access which provides for the forwarding of end user dialed 800 NXX-XXXX calls to a customer based on the dialed 800 number. 800 DB Service must be ordered to all end offices in a LATA and provisioned, at a minimum, to all access tandems and operator switches equipped as SSPs within a LATA. In addition, the provision of 800 DB Service requires the customer's direct access to the Service Management System/800 (SMS/800), or as an alternative, the provision of such service by a Responsible Organization in accordance with the Guidelines for 800 Data Base.

When an 800 call is originated by an end user, the Telephone Company will perform the customer identification function based on the dialed digits to determine the customer location to which the call is to be routed in accordance with SMS/800 information residing in the Telephone Company's Service Control Point (SCP).

The customer has the option of having the dialed 800 number (i.e., 800-NXX-XXXX) or the translated Plain Old Telephone Service (POTS) number (i.e., NPA-NXX-XXXX) delivered. If the translated POTS number is delivered, the customer must request the POTS Translation vertical feature through the Responsible Organization as described in (B), following. The service provider will be unable to determine that such calls originated as 1+800-NXX-XXXX dialed calls unless the customer also orders the Automatic Number Identification (ANI) feature as described in 4.2.5(H).

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.6 800 Data Base Access Service (Cont'd)

(A) Description (Cont'd)

800 DB Service provided from an equal access end office will be provisioned from the SSP switch as Feature Group D. Calls originating from end offices not equipped with equal access capabilities will be converted at the SSP switch to Feature Group D format.

The customer's 800 traffic may be combined in the same trunk group arrangement with the customer's non-800 Access Service traffic or provisioned on a separate trunk group, unless prohibited by technical limitations.

Measurement of 800 DB Service usage shall be in accordance with the regulations set forth in 4.6 for Trunkside Access. Specifically, 800 DB Service originating usage, whether combined with non-800 Access Service usage on trunk groups or provided using dedicated trunk groups, shall be measured in the same manner as specified for non-800 Access Service usage over Trunkside Access.

The Telephone Company must be notified twenty-four (24) hours prior to any media stimulation. The Telephone Company maintains the right to apply protective controls, i.e., those actions such as call gapping, to ensure the provisioning of acceptable service to all telecommunications users of the Telephone Company's network services.

Application of rates for 800 DB Service shall be as set forth in 4.1.2 (D).

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.6 800 Data Base Access Service (Cont'd)

(B) Vertical Features

In addition to the basic carrier identification function, 800 service subscribers may request vertical features through a Responsible Organization in accordance with the SMS/800 User Guide, BR 780-004-221. Vertical features will be maintained within the Telephone Company's SCP when technically feasible. The POTS Translation feature is described in (1), and the Call Handling and Destination Features are described in (2), following.

(1) POTS Translation

The POTS Translation vertical feature provides the option of having the ten digit POTS number (i.e., NPA-NXX-XXXX) delivered instead of the 800 dialed number (i.e., 800-NXX-XXXX) delivered to the service provider. If the POTS Translation feature is requested through the Responsible Organization, the service provider will be unable to determine that such calls originated as 1+800-NXX-XXXX dialed calls unless the service provider also orders, through the Telephone Company, the Automatic Number Identification (ANI) optional feature as described in 4.2.5(H). ANI information digits of "24" indicating that the call originated as an 800 dialed call is delivered when the ANI optional feature is ordered.

A POTS Translation Charge as described in 4.1.2(D) is assessed to the service provider for each 800 DB call delivered.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.6 800 Data Base Access Service (Cont'd)

(B) 800 Data Base Vertical Features (Cont'd)

(2) Call Handling and Destination Features

Call Handling and Destination Features allow service subscribers variable routing options by specifying a single carrier, multiple carriers (Exchange and /or Interexchange Carriers), single termination or multiple terminations. Multiple terminations require the POTS Translation feature described in (1), preceding. The following variable routing options are available.

- Routing by Originating NPA-NXX-XXXX
- Time of Day
- Day of Week
- Specific Date
- Allocation by Percentage

Routing by originating NPA-NXX-XXXX, where technically feasible, allows a service subscriber to specify one or more multiple terminations with a single carrier and/or multiple carriers (Exchange and/or Interexchange Carriers) based on where a call originates.

Time of Day/Day of Week allows a service subscriber to specify one or more multiple terminations, with a single carrier and/or multiple carriers (Exchange and/or Interexchange Carriers) based on time of day or day of week the call originates.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.2 Provision and Description of Switched Access Service Feature Groups (Cont'd)

4.2.6 800 Data Base Access Service(Cont'd)

(B) 800 Data Base Vertical Features (Cont'd)

(2) Call Handling and Destination Features (Cont'd)

Specific Date allows the service subscriber to specify alternate service routes with the date the call originates. These calls can be routed to one or multiple terminations, with a single carrier and/or multiple carriers (Exchange and/or Interexchange carriers).

Allocation by Percentage allows the service subscriber to specify by percentage the calls to be allocated to multiple terminations and/or multiple carriers (Exchange and/or Interexchange Carriers).

A Call Handling and Destination Feature Query Charge as described in 4.1.2 (D) is assessed to the service provider for each 800 query to the SCP which utilizes one or more of the Call Handling and Destination Features.

4.3 Obligations of the Telephone Company

In addition to the obligations of the Telephone Company set forth in Section 2, the Telephone Company has certain other obligations pertaining only to the provision of Switched Access Service. These obligations are as follows:

4.3.1 Network Management

The Telephone Company will manage its network in a non-discriminatory manner to ensure the optimum use of the call carrying capacity of the network and to minimize the effects of traffic overloads and machine or facility failures. The Telephone Company maintains the right to apply protective controls, such as the blocking or rerouting of Customer traffic, in order to prevent or minimize the degradation of those service performance standards to other Customers. Where application of protective controls by the Telephone Company results in the interruption of a Customer's service, the provisions for credit allowance set forth in Section 2.4 shall apply.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.3 Obligations of the Telephone Company (Cont'd)

4.3.2 Design and Traffic Routing of Switched Access Service

The Telephone Company shall design and determine the routing of Switched Access Service, including the selection of the first point of switching and the selection of facilities from the interface to any switching point and to the end offices serving the Customer. If the Customer desires routing of Switched Access Service other than that selected by the Telephone Company, the Telephone Company will, subject to its obligation to manage its network as provided in Section 4.3.1, work cooperatively with the Customer to develop routing to be used in lieu of the Telephone Company selected routing. The Telephone Company shall also decide if capacity is to be provided by originating only, terminating only, or two-way trunk group, unless the Customer specifies the directionality of calling desired. Selection of facilities and equipment and traffic routing of the service are based on standard Telephone Company traffic engineering methods, available facilities and equipment, and the Telephone Company traffic routing plans.

In the event a Customer converts from FGA service to FGB service, the Telephone Company will (where the capability exists) route calls from the FGA circuits to the FGB circuits for a one-year period from the date FGA service is terminated. No additional charge will apply for this call-forwarding function.

4.3.3 Provision of Service Performance Data

Service performance data for Switched Access Service will be made available for testing requested by the Customer, based on previously arranged intervals and format. This data may include, but it is not limited to: Customer equipment blockage, failure results, and transmission performance. If the Customer requests that the data be provided in other than a paper format, the cost of such exchange will be determined on an individual case basis and will be borne by the Customer.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.3 Obligations of the Telephone Company (Cont'd)

4.3.4 Trunk Group Measurement Reports

Trunk group data in the form of usage in CCS, peg count, and overflow will be made available to the Customer based on previously agreed to intervals, subject to availability.

4.3.5 Determination of Number of Transmission Paths

The number of transmission paths for Feature Groups A, B, and D when ordered by a Customer other than AT&T on the basis of circuits will be the quantity specified by the Customer on the Facilities Access Order. The number of transmission paths for Feature Groups C and D when ordered by AT&T or any other Customer on the basis of Busy Hour Minutes of Capacity (BHMC) will be developed by the Telephone Company using the projected BHMC for the Feature Group end office and will be converted to transmission paths using standard Telephone Company traffic engineering methods. The number of transmission paths provided shall be the number required based on (A) the use of access tandem switches and end office switches, (B) the use of end office switches only, or (C) the use of tandem switches only.

4.3.6 Determination of Number of End Office Terminations

For analog end office switches, a termination will be provided for each transmission path provided. For digital end office switches, an equivalent termination will be provided for each transmission path provided.

4.3.7 Design Blocking Probability

(A) For Feature Groups A and B and for Feature Group D ordered on the basis of circuits, the level of blocking is a function of the number of circuits ordered by the Customer and the busy hour traffic offered over those circuits.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.3 Obligations of the Telephone Company (Cont'd)

4.3.7 Design Blocking Probability (Cont'd)

(B) For Feature Group C and Feature Group D ordered on the basis of Busy Hour Minutes of Capacity, the Telephone Company will design facilities to adhere to a blocking objective no greater than one percent (.01) between the point of interface at the Customer designated premises and the first point of switching. Standard traffic engineering methods will be used by the Telephone Company to determine the number of transmission paths required to achieve this level of blocking.

The design blocking criteria for 800 and 900 Access Service will be equivalent to the design blocking criteria of the basic serving arrangement that they are provisioned as, except under media stimulation when protective controls may be utilized to ensure the provisioning of acceptable service levels to all telecommunications users of the Telephone Company's network services.

(C) The Telephone Company will perform routine measurement functions, except on Feature Groups A and B and for Feature Group D circuits ordered on the basis of circuits, to assure that an adequate number of transmission paths are in service. The Telephone Company will recommend that additional capacity be ordered by the Customer when additional paths are required to reduce the measured blocking to the designed blocking level. For the projected Busy Hour Minutes of Capacity ordered, the design blocking objective is assumed to have been met if the routine measurements show that the measured blocking does not exceed the threshold listed in the following tables.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.3 Obligations of the Telephone Company (Cont'd)

4.3.7 Design Blocking Probability (Cont'd)

(C) (Cont'd)

(1) For transmission paths carrying only first routed traffic direct between an end office and a Customer designated premises without an alternate route, and for paths carrying only overflow traffic, the measured blocking thresholds are as follows:

Number of Transmission Paths Per Trunk Group	Measured Blocking Thresholds in The Time Consistent Busy Hour for the Number of Average Business Day Measurements Per Trunk Group			
	15-20 Measurements	11-14 Measurements	7-10 Measurements	3-6 Measurements
2	.070	.080	.090	.140
3	.050	.060	.070	.090
4	.050	.060	.070	.080
5-6	.040	.050	.060	.070
7-336	.030	.035	.040	.060
337-504	.025	.030	.035	.055
505 or more	.020	.025	.030	.050

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.3 Obligations of the Telephone Company (Cont'd)

4.3.7 Design Blocking Probability (Cont'd)

(C) (Cont'd)

(2) For transmission paths carrying first routed traffic between an end office and a Customer designated premises via an access tandem, the measured blocking thresholds are as follows:

Number of Transmission Paths Per Trunk Group	Measured Blocking Thresholds in The Time Consistent Busy Hour for the Number of Average Business Day Measurements Per Trunk Group			
	15-20 Measurements	11-14 Measurements	7-10 Measurements	3-6 Measurements
2	.045	.055	.060	.095
3	.035	.040	.045	.055
4	.035	.040	.045	.055
5-6	.025	.035	.040	.045
7-336	.020	.025	.030	.040
337-504	.015	.020	.025	.035
505 or more	.010	.015	.020	.030

4.4 Obligations of the Customer

In addition to the Obligations of the Customer set forth in Section 2, the Customer has certain specific obligations pertaining to the use of Switched Access Service. These obligations are as follows:

4.4.1 Report Requirements

Customers are responsible for providing the following reports to the Telephone Company, when applicable.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.4 Obligations of the Customer (Cont'd)

4.4.1 Report Requirements (Cont'd)

(A) Code Screening Reports

When a Customer orders service class routing, trunk access limitation, or call gapping arrangements, it must report the number of trunks and/or the appropriate codes to be instituted in each end office or access tandem switch, for each of the arrangements ordered.

(B) Trunk Group Measurements Report

Where technologically feasible, the Customer must report Trunk group data in the form of usage in CCS, peg count, and overflow for its end of all access trunk groups. These data will be used to monitor trunk group utilization and service performance and should be provided at intervals and in a format previously agreed upon.

4.4.2 On- and Off-Hook Supervision

The Customer's facilities shall provide the necessary on-hook and off-hook supervision.

4.4.3 Customer's V&H Location

The Customer shall provide to the Telephone Company at the time services are requested the V&H coordinates of its facilities at the point of termination.

4.5 Transmission Performance Capabilities

This section sets forth the two Standard Transmission Performances (i.e., Types B and C) available with Switched Access Service. The standard for a particular transmission path is dependent on the Feature Group, the Interface Group and

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

whether the service is routed directly or via an access tandem. Standard Transmission Performances are set forth in Section 4.5.1. At the Customer's option, Improved Two-Wire Voice Transmission Performance, as set forth in Section 4.5.3, may be provided. In addition, Data Transmission Parameters may be ordered by the Customer. These are provided at an additional cost and are subject to local availability.

The Telephone Company will maintain existing transmission specifications on service configurations installed prior to the effective date of this tariff, except that existing services with performance specifications exceeding the standards in this section will be maintained at the performance levels specified in this tariff. All service configurations installed after the effective date of this tariff will conform to the transmission specifications contained in this tariff.

The transmission specifications contained in this Section are immediate action limits. Acceptance limits set forth in Technical Reference PUB 62500 and Switched Access Service maintenance limits set forth therein shall apply to this Section 4.

4.5.1 Standard Transmission Performance

Following are descriptions of the two Standard Transmission Performances available with Switched Access Service Feature Groups. Their specific applications in terms of the Feature Groups and Interface Groups with which they are provided are set forth in Sections 4.2.1(C), 4.2.2(C), and 4.2.3(C), and 4.2.4(C).

(A) Transmission Performance Type B

Transmission Performance Type B is provided with the following parameters:

(1) Loss Deviation

The maximum deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is ± 2.5 db.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(A) Transmission Performance Type B (Cont'd)

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0dB to +4.0dB.

(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	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
greater than 400	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.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(A) Transmission Performance Type B (Cont'd)

(5) Echo Path Loss

The Echo Path Loss, 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 point of termination (POT) to the end office or via an access tandem. The ERL and SRL also differ by Feature Group, type of termination, and type of transmission path. They are greater than or equal to the following:

	Echo Return Loss	Singing Return Loss
POT to Access Tandem		
- Terminated in 4-wire trunk	21 dB	14 dB
- Terminated in 2-wire trunk	16 dB	11 dB
POT to End Office		
- Direct	16 dB	11 dB
- Via Access Tandem		
For FGB access	8 dB	4 dB
For FGC access (Effective 4-wire transmission path at end office)	16 dB	11 dB
For FGC access (Effective 2-wire transmission path at end office)	13 dB	6 dB

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(A) Transmission Performance Type B (Cont'd)

(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 interface shall be greater than:

Echo return loss: 5 dB
Singing return loss: 2.5 dB

(B) Transmission Performance Type C

Transmission Performance Type C is provided with the following parameters:

(1) Loss Deviation

The maximum deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) ±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:

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(B) Transmission Performance Type C (Cont'd)

(3) C-Message Noise (Cont'd)

Route Miles	C-Message Noise	
	Type C1	Type C2
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
greater than 400	39 dBrnCO	45 dBrnCO

*For Feature Groups C and D only Type C2 will be provided. For Feature Groups A and B, Type C1 and C2 will be provided as set forth in Technical Reference TR-NPL-000334.

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a 16 dBmO holding tone is less than or equal to 47 dBrnCO.

(5) Return Loss

The Return Loss, 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 point of termination (POT) to the end office or via an access tandem. They are equal to or greater than the following:

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(B) Transmission Performance Type C (Cont'd)

(5) Return Loss (Cont'd)

	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 only)	8 dB	4 dB

(C) Transmission Performance Type A

Transmission Performance Type A is provided with the following parameters:

(1) Loss Deviation

The maximum deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is ± 2.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 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:

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(C) Transmission Performance Type A (Cont'd)

(3) C-Message Noise (Cont'd)

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
greater than 400	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 Path Loss

The Echo Path Loss, 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 point of termination (POT) to the end office or via an access tandem. They are equal to or greater than the following:

	Echo Return Loss	Singing Return Loss
POT to Access Tandem	21 dB	14 dB
POT to End Office		
-Direct	NA	NA
-Via Access Tandem	16 dB	11 dB

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.1 Standard Transmission Performance (Cont'd)

(C) Transmission Performance Type A (Cont'd)

(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

4.5.2 Data Transmission Parameters

There are two types of Data Transmission Parameters, i.e., Type DA and Type DB, which are provided. Following are descriptions of each.

(A) Data Transmission Parameters - Type DA

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is less than or equal to 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 50 route miles	500 microseconds
equal to or greater than 50 route miles	900 microseconds

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.2 Data Transmission Parameters (Cont'd)

(A) Data Transmission Parameters - Type DA (Cont'd)

(2) Envelope Delay Distortion (Cont'd)

1004 to 2404 Hz

less than 50 route miles	200 microseconds
equal to or greater than 50 route miles	400 microseconds

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 65 dBrnCO threshold in 15 minutes is no more than is 15 counts.

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion is 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 five (5) degrees peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.2 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.

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion is equal to or greater than:

Second Order (R2)	31 dB
Third Order (R3)	34 dB

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.5 Transmission Performance Capabilities (Cont'd)

4.5.2 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters - Type DB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to seven (7) degrees peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to 2 Hz.

4.6 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply to Switched Access Service.

4.6.1 Types of Rates and Charges

There are two types of rates and charges that may apply to Switched Access Service. These are usage rates and nonrecurring charges. These rates and charges are applied differently to the various rate elements. Nonrecurring charges are billed in advance, and usage rates are billed in arrears.

(A) Usage Rates

Usage Rates are rates that apply only when a specific rate element is used. These are applied on either a per-access minute, a per-access minute mile, a per-call or per-query basis. These rates are accumulated over a monthly period.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.1 Types of Rates and Charges (Cont'd)

(B) Monthly Rates

Monthly rates apply for the Direct Trunking, Multiplexing and Entrance Facility charges. Monthly rates are flat recurring rates that apply each month or fraction thereof that a monthly rated service is provided. For billing purposes, each month is considered to have 30 days.

(C) Nonrecurring Charges

Nonrecurring Charges are one-time charges that apply for a specific work activity (e.g., installation or change to an existing service). Nonrecurring charges are set forth in Section 9.2. For FGA, FGB, and FGD, which are ordered on a per line or per trunk basis, the charge is applied per customer designated premises for each line or trunk ordered. For FGC and FGD, which are ordered on the basis of Busy Hour Minutes of Capacity, the charge is applied per customer designated premises for each transmission path provided in order to meet the capacity ordered by the Customer, as determined in accordance with Section 4.3.5.

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:
- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of 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.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.2 Minimum Periods

Switched Access Service is provided for a specified minimum period. Minimum periods and charges are described in Section 2.4.2 and Section 9.

4.6.3 Minimum Monthly Charge

Switched Access Service is subject to a minimum monthly charge. The minimum charge applies to each transmission path by Feature Group provided to the Customer at an end office. The minimum charge consists of the following.

(A) The minimum monthly charge for all usage sensitive rate elements is the sum of the charges for the measured or assumed monthly usage as set forth in Section 4.7.

(B) The minimum monthly charge for monthly rated services is one month.

4.6.4 Reserved For Future Use

4.6.5 Change of Feature Group Type

Changes from one type of Feature Group to another, will be treated as discontinuance of one type of service and a start of another. The nonrecurring charges set forth in Section 9.2 will apply except where any Feature Group service is upgraded to FGD or from FGA to FGB. In those two instances, minimum period obligations on upgrading Feature Group service will not change i.e., the time elapsed in the existing minimum period will be credited to the new minimum period obligations on an upgraded service. For all other changes from one type of Feature Group to another, new minimum period obligations will be established.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.5 Change of Feature Group Type (Cont'd)

To avoid the nonrecurring charges set forth in Section 9.2 for upgrading service to FGD, the IC must submit its disconnect order for FGA and FGB within thirty (30) days after the date the results of the final allocation of End Users are actually received by the IC pursuant to Section 8.3.4. The effective date for the disconnection may be no later than sixty (60) days after the allocation results are received by the IC.

4.6.6 Moves

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

- The point of termination at the Customer designated premises.
- The Customer designated premises.

The charges for the move and the associated minimum period obligations are dependent on whether the move is to a new location within the same wire center area or to a different wire center area.

(A) Moves to a Different Wire Center Area

When a Customer designated premises is moved to a different wire center area, the move will be treated as a disconnect and a start of service. Facilities Access Order charges, as set forth in Section 9, will apply and a new minimum period will be established. The Customer will also remain responsible for fulfilling all outstanding minimum period obligations associated with disconnected service.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.4.6 Moves (Cont'd)

(B) Moves to a Different Building Within the Same Wire Center

When a Customer designated premise is moved to a new location in a different building in the same wire center area, Facilities Access Order charges, as set forth in Section 9, will apply and the existing minimum period obligations will continue in effect.

(C) Moves Within the Same Building

When a Customer designated premises is moved to a new location within the same building in the same wire center area, Facilities Access Order charges, as set forth in Section 9, will apply and the existing minimum period obligations will continue in effect.

4.6.7 Accumulation of Number of Transmission Paths

The number of transmission paths used to determine the charges as set forth in Section 4.7 shall be the sum of the number of paths actually provided as set forth in Section 4.3.5.

4.6.8 Recording of Minutes of Use

Customer traffic to end office switches will be measured at end office switches or access tandem switches. At end offices or tandem switches equipped for full time measurement capability, originating, and terminating calls will be measured by the Telephone Company to determine minutes of use. In some instances, this measurement is accomplished on a 100-second scan basis. At end offices providing Feature Group A where measurement capability does not exist, a surrogate assumed monthly access minute of use figure per line amounting to 7000 for two-way service will apply. Where the Feature Group A service is arranged for originating only usage, a surrogate assumed monthly access minute of use figure per line amounting to 3702 will be used. Where the Feature Group A service is arranged for terminating only usage, a surrogate assumed monthly access minute of use figure per line amounting to 3298 will be used. When a Feature Group A service is arranged for two-way use and usage cannot be measured in one of the two directions, a surrogate assumed monthly access minute of use figure per line amounting to 7000, or the usage in the measured direction, whichever is greater, will be used.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.8 Recording of Minutes of Use (Cont'd)

At end office providing Feature Group B where measurement capability does not exist, a surrogate assumed monthly access minute of use figure per trunk amounting to 9000 for two-way service will apply. Where the Feature Group B service is arranged for originating only usage, a surrogate assumed monthly access minute of use figure per trunk amounting to 4500 will be used. Where the Feature Group B service is arranged for terminating only usage, a surrogate assumed monthly access minute of use figure per trunk amounting to 4500 will be used. When a Feature Group B service is arranged for two-way use and usage cannot be measured in one of the two directions, a surrogate assumed monthly access minute of use figure per trunk amount to 9000, or the usage in the measured direction, whichever is greater, will be used.

The Telephone Company presently measures all FGB usage. Should an order be received for FGB service that the Telephone Company cannot measure, the surrogate would be used for a period not to exceed one year from the date of the FGB installation until sufficient data can be gathered to develop an appropriate usage surrogate or until measurement equipment can be installed.

Nothwithstanding the preceding, when Feature Group A is used in connection with Special Access service where measurement capability exists at the WATS Serving Office but not at the Feature Group A entry switch, the measured originating and/or terminating minutes of use over the Special Access line shall be separately summed and compared to their respective total assumed originating and/or terminating minutes of use. The number of access minutes per line per month will be the assumed or the measured usage, whichever is greater.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.9 Determination of Intrastate Usage for Mixed Interstate and Intrastate Switched Access Service

(A) When a Customer initially orders Feature Group A and/or Feature Group B Switched Access Service in an exchange area the Customer shall, in its order, state the number of Feature Group A and/or Feature Group B Switched Access Services which are to be provided for interstate use. The number shall be stated as the number of whole lines for Feature Group A Switched Access Service and the number of whole trunks for Feature Group B Switched Access Service.

(B) Except as provided below, all Feature Group A and/or Feature Group B Switched Access Services ordered under this tariff not provided in a multiline hunt group or trunk group arrangement are designated as interstate services.

(C) For multiline hunt group or trunk group arrangements, the interstate portion of Feature Group A and/or Feature Group B Switched Access Service shall be determined on the basis of the Customer's order under Section 4.6.9(A) for billing periods prior to the first billing period after the receipt of the first report on interstate and intrastate usage required pursuant to Section 4.6.9(C)(2). Thereafter, the interstate portion of the Feature Group A and/or Feature Group B Switched Access Services shall be determined as follows:

(1) The number of interstate access minutes shall be determined by dividing the total number of access minutes measured or assumed by the Telephone Company by the total number of access minutes reported pursuant to Section 4.6.9(C)(2) and multiplying by the total number of access minutes recorded by the Telephone Company for the billing period. For example, if the Telephone Company measured a total of 150,000 access minutes for a customer in a billing period, and the Customer's Section 4.6.9(C)(2) report indicates that the Customer had a total of 120,000 access minutes, of which 72,000 were interstate, then its interstate access minutes during the billing period would equal 90,000 minutes. ((150,000 / 120,000) x 72,000 = 90,000) The remaining minutes of use would be intrastate minutes.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.9 Determination of Intrastate Usage for Mixed Interstate and Intrastate Switched Access Service (Cont'd)

(C) (Cont'd)

(2) Any Customer which obtains Feature Group A and/ or Feature Group B Switched Access Service for use in a multiline hunt group or trunk group shall report its interstate usage to the Telephone Company semi-annually on January 1 and July 1 of each year. Those reports shall include (a) the name and address of the Customer, (b) the type and number of lines or trunks in each multiline hunt group or trunk group, (c) the number of total, interstate, and intrastate access minutes for the month prior to the month immediately preceding the date on which the report is due, i.e., November and May.

(3) For the purposes of this Section 4.6.9(C), the number of interstate access minutes shall be the total number of minutes used in connection with telephone calls that enter a Customer's network in a state other than that where the called station is located. The number of intrastate access minutes shall be the total number of minutes used in connection with telephone calls that enter a Customer's network in the same state where the called station is located.

(4) The Telephone Company shall have the right, upon reasonable written notice to the Customer, to examine and audit or to have its designated representative examine and audit, during normal business hours and at intervals not more frequent than annually, all call detail records and associated material relevant to the report required pursuant to Section 4.6.9(C)(2). The Customer shall retain all such material necessary to permit the Telephone Company or its designee to conduct the examination and audit for a reasonable period of time, not to exceed one year from the date on which any report is provided to the Telephone Company.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.9 Determination of Intrastate Usage for Mixed Interstate and Intrastate Switched Access Service (Cont'd)

(D) When a Customer orders Feature Group C or Feature Group D Switched Access Services, the Telephone Company will, unless the Customer provides the projected interstate percentage for intrastate usage in its order, determine the projected interstate percentage as follows. For originating access minutes, the projected intrastate percentage will be developed on a monthly basis by end office by dividing the measured intrastate originating access minutes as determined in accordance with Section 4.6.8 (the access minutes where the calling number is in one state and the called number is in the same state) by the total originating access minutes. For terminating access minutes, the data used by the Telephone Company to develop the projected intrastate percentage for originating access minutes and data determined in accordance with Section 4.6.8 will be used to develop projected intrastate percentage for such terminating access minutes. The Telephone Company will multiply the projected intrastate originating percentage by the total originating minutes and the projected intrastate terminating percentage by the total terminating minutes to obtain the number of originating and terminating minutes to be billed at the rates set forth in Section 4.7.

(E) Except where Telephone Company measured access minutes are used as set forth in Section 4.6.9(D), the Customer reported number of intrastate services or intrastate percentage of use as set forth in Sections 4.6.9(A) and (D) will be used until the Customer reports a different number of lines or trunks or a different percentage for interstate use. The revised report will be the basis for future billing and will be effective on the next bill date. No prorating or back billing will be done based on the report.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.9 Determination of Intrastate Usage for Mixed Interstate and Intrastate Switched Access Service (Cont'd)

(F) Where the customer utilizes FGA Switched Access Service for calls between a Primary Exchange Carrier and a Secondary Exchange Carrier within the same Extended Area Service calling area, and/or Feature Group B Switched Access Service for calls between a Primary Exchange Carrier's access tandem and a subtending Secondary Exchange Carrier, where the Primary and Secondary Exchange Carriers are not the same Telephone Company and do not provide service under the same access service tariff, a copy of the revised report will be provided by the customer to each Secondary Exchange Carrier.

(G) The PIU guidelines in 4.6.9(A) through (F) are applied to usage rated Carrier Common Line, Information Surcharge, Local Switching and Tandem Switched Transport. Separate PIUs are required for flat rated Entrance Facility, Direct Trunked Transport and Multiplexing.

4.6.10 Message Unit Credit

The monthly bills rendered to Customers for their Feature Group A Switched Access Service will include a credit to reflect any local message unit charges collected by the Telephone Company from its End Users for calls to Customers' interexchange service. No credit is given for toll charges. This credit applies to the Local Switching rate element is applicable only for originating calls and is calculated on an exchange-by-exchange basis. Where LMS is available and to the extent the Telephone Company can prevent end users from being billed message units when accessing a Customer's service, no message unit credits will be given the Customer.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.11 Certain Local Services

Customers will be billed charges for calls over Switched Access Service in the terminating direction to certain community information services, for which rates are applicable under Telephone Company Exchange tariffs, e.g., DIAL-IT Network Services.

4.6.12 Reserved For Future Use

4.6.13 Premium and Transitional Charges

All rates are applied as premium rates.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.14 Mileage Measurement

The mileage to be used to determine the monthly rate for Local Transport is calculated on the airline distance between the end office switch, which may be a Remote Switching Module, where the call carried by Local Transport originates or terminates and the Customer's serving wire center, except as set forth in Sections 4.6.14(A) through (J). Where applicable, the V&H coordinates method is used to determine mileage. This method is set forth in the EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. No. 4 . If the method results in fractional miles, the fractional miles are rounded up to the nearest whole number before determining the rate to be billed.

Exceptions to the mileage measurement rules are as follows:

(A) Mileage for premium and transitional rated access minutes in the originating direction over Feature Group A Switched Access Service will be calculated on an airline basis, using the V&H coordinates method, between the end office switch where the Feature Group A switching dial tone is provided and the Customer's serving wire center for the Switched Access Service provided.

(B) When a non AT&T Customer's premises is within five miles of an AT&T Class 4 office, the Local Transport mileage for a call which is carried over a premium rated Switched Access Service, originating or terminating through an end office switch, shall be the distance as would be determined from that end office switch to the serving wire center for the AT&T Class 4 office unless the Customer specifies that it wants all measurements determined from its serving wire center. This designation (i.e., which serving wire center to use in calculating mileage) may be changed only once in any 12 month period. This change will be made without charge(s) to the Customer.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.14 Mileage Measurement (Cont'd)

(C) When the Alternate Traffic Routing optional feature is provided with Feature Groups B, C, and D, all Local Transport access minutes will be billed to the Customer based on mileage calculated on the airline distance between the end office switch where the call carried by Local Transport originates or terminates and the Customer's serving wire center.

(D) When terminating Feature Group C Switched Access Service is provided from multiple Customer premises to an end office not equipped with measurement capabilities, mileage will be calculated as set forth below:

The total Local Transport access minutes for that end office will be apportioned among the trunk groups accessing the end office on the basis of the individual busy hour minutes of capacity ordered for each of those trunk groups. This apportionment will serve as the basis for Local Transport mileage calculation.

(E) When the customer utilizes FGA Switched Access Service for calls between a Primary Exchange Carrier and a Secondary Exchange Carrier within the same Extended Area Service calling area and the Primary and Secondary Exchange Carriers are not the same Telephone Company and do not provide service under the same access service tariff, the Primary Exchange Carrier and Secondary Exchange Carrier will calculate mileage for Premium and Transitional rated access minutes in the originating direction over Feature Group A Switched Access Services as follows:

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.14 Mileage Measurement (Cont'd)

(E) (Cont'd)

(1) The Primary Exchange Carrier will calculate originating mileage, on an airline basis, using the V&H coordinates method. This mileage measurement will be between the first point of switching (end office switch where the Feature Group A switching dial tone is provided) and the customer's serving wire center.

(2) The Secondary Exchange Carrier will calculate originating mileage, on an airline basis, using the V&H coordinates method. This mileage measurement will be between the first point of switching (end office switch where the Feature Group A switching dial tone is provided) and the end user's end office switch.

(F) When jointly provisioned Switched Access is provided between the Telephone Company and another Exchange Telephone Company in conjunction with 800 DB Service and ANI cannot be identified, the Telephone Company and the other Exchange Telephone Company will mutually agree upon an end office designation to determine an existing end office that reflects the closest mileage measurement to the average Local Transport miles. This end office designation can then be used for purposes of determining the appropriate mileage by using the V&H coordinate method. When the ANI can be determined the originating end office will be used to determine the Local Transport mileage.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.14 Mileage Measurement (Cont'd)

(G) The Local Transport mileage for terminating Feature Group A Switched Access Service will be measured in two segments if the customer orders direct trunking. Direct Trunked Transport mileage will be measured between the customer's serving wire center and the first point of switching (i.e., the end office switch where the Feature Group A switching dial tone is provided). Tandem Switched Transport mileage will be measured between the first point of switching and the terminating end office.

(H) The Local Transport mileage for Feature Groups B, C, and D Switched Access Service provided to a Remote Office will be measured in two segments when it is directly trunked to the Host Office. Direct Trunked Facility mileage will be measured between the customer's serving wire center and the Host Office. Tandem Switched Facility mileage will be measured between the Host Office and the Remote Office.

(I) Pursuant to FCC 20-143, released October 9, 2020, tandem switching and transport for originating 800 traffic will be charged via a single usage sensitive Joint Tandem Switched Transport Access Service rate applied per access minute. (N) | (N)

(J) When terminating Feature Group C Switched Access Service is provided from multiple customer designated premises to an end office not equipped with measurement capabilities, the total Local Transport access minutes for that end office will be apportioned among the trunk groups accessing the end office on the basis of the individual busy hour minutes of capacity ordered for each of those trunk groups. This apportionment will serve as the basis for Local Transport mileage calculation. (T)

(K) The Local Transport Facility for Feature Groups A, B, C, and D Switched Access Service connected with the Special Access Service at a WATS Serving Office will be measured between the WATS Serving Office (when measured access minutes of use are used) or between the Feature Group A entry switch (when assumed minutes of use are used) and the serving wire center for the customer designated premises. (T)

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.15 Shared Use

Shared use occurs when Switched Access Service and Special Access Service are provided over the same analog or digital high capacity service through a common interface. The regulations governing the provision of Shared Use Facilities are set forth in Section 5.4.5.

4.6.16 Application of Rates for Extension Service

Feature Group A Service and WATS Access Lines provided with Feature Group C and D are available with extensions, i.e., additional terminations of the service at different building(s) in the same or a different local calling area. Feature Group A extensions within the local calling area are provided and charged for under the Telephone Company's local and/or general exchange service tariffs. Feature Group A extensions in different local calling areas and WATS Access Line extensions in the same or different local calling areas are provided and charged for as Special Access Service. The rate elements which apply are: A Voice Grade Channel Termination, Channel Mileage, if applicable, and Signaling Capability (Optional Features and Functions), if applicable. All appropriate monthly rates and nonrecurring charges set forth in Section 5.5 following will apply.

4.6.17 Application of Rates for Primary/Secondary Exchange Carrier (PEC/SEC)

Secondary Exchange Carrier (SEC) originating Feature Group A Minutes of Use (MOU) are subject to the End Office charges in Section 4.7.2 following as well as Local transport charges in Section 4.7.1 following applied to mileage measured according to Section 4.6.14(E) preceding.

Primary Exchange Carrier (PEC) End Office charges in Section 4.7.2 following and Local Transport charges in Section 4.7.1 following subject to mileage measurement in Section 4.6.14(E) preceding also apply to SEC originating Feature Group A MOU. Only the PEC will apply Carrier Common Line (CCL) charges from ECA Tariff F.C.C. No. 1, Section 3.8, to such traffic.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.17 Application of Rates for Primary/Secondary Exchange Carrier (PEC/SEC) (Cont'd)

SEC terminating Feature Group A MOU are subject to the same rate application as defined above except mileage is measured as one segment from the End Office to the Customer Serving Wire Center using the V&H coordinate method and is billed exclusively by the PEC.

SEC Feature Group B originating and terminating MOU are also subject to the above same rate application except the PEC bills all originating local transport charges as well as all terminating local transport charges.

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

Where end office specific usage data are not available, usage will be allocated between the involved Exchange Carriers, by developing ratios of the total number of subscriber lines in each secondary exchange to the total number of subscriber lines in the Primary Exchange Carrier's Extended Area Service are served by the dial tone office. Then apply these ratios to the total number of access minutes to determine access minutes for each secondary exchange.

These rate regulations do not supersede separate contractual billing and settlement arrangements between the PEC and the SEC which have no affect on total charges assessed to the customer.

4.6.18 Shared Transport

Shared Transport refers to a rate application that is applicable only when the customer orders High Capacity Direct Trunked Transport between a serving wire center and a Telephone Company hub where the Telephone Company performs multiplexing/demultiplexing functions and the same customer then orders the derived channels as Direct Trunked Transport and Tandem Switched Transport.

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.18 Shared Transport (Cont'd)

When the same customer also orders Special Access Service to be provided over the same high capacity facility, this service is considered to be Shared Use and the regulations set forth in 4.6.15 must be applied to separate the portion to be charged as Switched Access Service from the portion to be charged as Special Access Service.

Except as noted above, the Switched Access Service will be ordered, provided and rated as Direct Trunked Transport (i.e., Direct Trunked Facility and Direct Trunked Termination). As each derived channel is activated for Tandem Switched Transport, the High Capacity Direct Trunked Transport and Multiplexing rates will be reduced accordingly (e.g., 1/24th for a High Capacity DS1 service, 1/672 for a High Capacity DS3 service, etc.). Tandem Switched Transport rates and charges as set forth in 4.7.1(B) following, will apply for each channel that is used to provide the Tandem Switched Transport.

4.7 Rates and Charges

4.7.1 Local Transport

(A) Dedicated Facilities

(1) Entrance Facility

Per Termination	Monthly Rate
- Voice Grade Two-Wire	$29.00
- Voice Grade Four-Wire	$38.00
- High Capacity DS1	$185.00
- High Capacity DS3	$1,797.00

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.7 Rates and Charges (Cont'd)

4.7.1 Local Transport (Cont'd)

(A) Dedicated Facilities (Cont'd)

(2) Direct Trunked Termination and Facility

	Termination (Per Direct Trunk)	Facility (Per Direct Trunk Per Mile)
- Voice Grade	$53.50	$3.00
- High Capacity DS1	94.77	15.00
- High Capacity DS3	623.00	220.00

(3) Multiplexing

	Monthly Rate
DS3 to DS1	$999.00

(B) Tandem Switched Transport – Non 800 (C)

(1) Tandem Transmission

Premium Rate

	Tandem Switched Switched Per Access Minute	Facility Per Access Minute Per Access Per Mile
Originating	$.00041200	$.00009500
Terminating	$.00050000	$.00000000
Terminating – 3rd Party	$.00050000	$.00009000

(2) Tandem Switch

Premium Rate

	Rate Per Access Minute
Originating	$.000725
Terminating	$.0

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.7 Rates and Charges (Cont'd)

4.7.2 End Office

(A) Local Switching

Originating and Terminating Minutes

	Rates Per Access Minute		
	Originating	Terminating	
FGC and FGD – Non 800	$.021488	$.00000000	
FGA and FGB – Non 800	$.021488	$.00000000	
FGC and FGD – 800	$.00000000		(R)
FGA and FGB – 800	$.00000000		(R)

(B) Line Termination

(No separate rate)

(C) Intercept

(No separate rate)

(D) Directory Assistance Information Surcharge

Per Access Minute

Jurisdiction	Originating Premium	Terminating Premium
Iowa – Non 800	$.000201	$0.0
Iowa – 800	$.000000	

(E) Local Switching Trunk Port	Originating	Terminating	
DSO End Office Trunk Ports	$11.00	$0.0	
DS1 End Office Trunk Ports	$170.00	$0.0	
Common Trunk Port Per Minute of Use			
Originating – Non 800	$0.0000		
Terminating – Non 800	$0.0000		
Originating – 800	$0.0000		(R)

ACCESS SERVICE

4. Switched Access Service (Cont'd)

4.7 Rates and Charges (Cont'd)

4.7.3 800 Data Base Access Service

	Rate Per Call/Query	
(A) 800 Carrier Identification Charge, Per Call		
Jurisdiction		
Iowa	$.0002	(R)
(B) Vertical Features		
(1) POTS Translation Charge, Per Call		
Jurisdiction		
Iowa	$.000000	
(2) Call Handling & Destination Feature Charge, Per Query		
Jurisdiction		
Iowa	$.000000	

4.7.4 Abbreviated Dialing Arrangement (ADA)

	Initial Non-Recurring Charge
(A) Initial End Office	$360.07
(B) Subsequent End Office, Per Office	$180.03

	Per Access Minute	
4.7.5 Joint Tandem Switched Transport Access Originating, per 800 Access Minute	$.00000000	(R)

ACCESS SERVICE

5. Special Access Service

5.1 General

Special Access Service provides a 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 also provides a transmission path to connect a Customer designated premises and a WATS serving office. Special Access Service includes all exchange access not utilizing Telephone Company end office switches. This type of Access Service is used, for example, by Customers for the provision of private line service.

A list of end offices capable of performing the necessary screening functions for Special Access Service used in connection with Switched Access service will be provided to the Customer upon request.

The provision of Special Access in all situations is dependent upon the availability of Telephone Company plant and equipment.

5.1.1 Channel Types

There are nine types of channels used to provide Special Access Service. These channels can be either analog or digital. Analog channels are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate. The specific types of channels (e.g., Narrowband, Voice Grade, Wideband Digital) provided under Special Access are described in Section 5.2.

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

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

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

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.1 Channel Types (Cont'd)

The Customer can order a basic channel and select from a list of available transmission parameters, protocol combinations, and optional features to design a channel which meets the Customer's specific communications needs.

For purposes of ordering channels, each has been identified as a type of Special Access Service. However, such identification is not intended to limit a Customer's use of the channel nor to imply that the channel is limited to a particular use. For example, if a Customer's equipment is capable of transmitting voice over a channel that is identified as a Narrowband Service in this tariff, there is no restriction against doing so.

5.1.2 Rate Categories

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

- Channel Termination
- Channel Mileage
- Optional Features and Functions

These rate categories are described in Sections 5.1.2(A) through (C).

(A) Channel Termination

The Channel Termination rate category provides for the communications path between a Customer designated premises and the serving wire center of that premises. It also provides for the unrecovered portion of Inside Wire investment assigned to Special Access Service. Included as part of the Channel Termination is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the Access Service is to be connected at the point of termination (POT) and the type of signaling capability if any.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.2 Rate Categories (Cont'd)

(A) Channel Termination (Cont'd)

The signaling capability itself is provided as a part of this category. One Channel Termination charge applies per Customer designated premises at which the channel is terminated. This charge will apply even if the Customer designated premises and the serving wire center are co-located in a Telephone Company building. For Special Access service used in connection with Switched Access service, and for Video service only one Channel Termination charge applies. Special Access Service used in connection with Switch Access service is provided as set forth in Section 4.1.1. Channel Termination rates for each type of channel are set forth in Section 5.5.

(B) Channel Mileage

The Channel Mileage rate category provides for the end office equipment and the transmission channel 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 or between two Telephone Company hubs or between a WATS Serving Office and a Customer serving wire center when the two are not co-located. Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate. Channel Mileage charges are set forth in Section 5.5.

(1) Channel Mileage Facility

The Channel Mileage Facility rate recovers the cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s) and includes primarily outside plant used to provide the facility.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.2 Rate Categories (Cont'd)

(B) Channel Mileage (Cont'd)

(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and Telephone Company hub where the channel is terminated. If the Channel Mileage is between Telephone Company bridging hubs, the Channel Mileage Termination rate will apply per Telephone Company designated hub. When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

(C) Optional Features and Function

Optional Features and Functions may be added to a service to improve its quality or utility to meet the Customer's specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Examples of Optional Features and Functions that are available include, but are not limited to, the following:

- Conditioning
- Automatic Protection Switching
- Bridging

The list of Optional Features and Functions is set forth in Section 5.5.1.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.3 Protocol Combinations

The protocol (i.e., interface) defines the technical characteristics associated with the type of signaling and type of facilities presented for connection to the Access Service at the Customer designated premises. The protocol specified for the Customer premises may be asymmetrical or symmetrical. However, only certain combinations are technically possible. Therefore, for purposes of this tariff, protocol is being described in terms of acceptable combinations.

When ordering Special Access Service, the Customer must specify the protocol combination that is desired for the service ordered. Only certain protocol combinations are considered to be standard and included in the charge for Channel Termination. These protocol combinations are set forth for each Channel type in Section 5.2. When the Customer requests a protocol combination which is not standard, an additional charge will be assessed on an individual case basis. Not all protocol combinations are available at all Telephone Company locations.

5.1.4 Service Configurations

There are two types of service configurations over which Special Access Service is 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 or a customer designated premises and a WATS Serving office. All types of Special Access Service may be provided as two-point service.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.4 Service Configurations (Cont'd)

(B) Multipoint Service

A multipoint service connects three or more Customer designated premises. Only certain types of Special Access Service may be provided as multipoint service. These are so designated in the descriptions for the appropriate channel.

When ordering multipoint service, the Customer may specify the desired bridging hub. EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. No. 4 identifies serving wire centers, hub locations, and the type of bridging functions available.

5.1.5 Special Facilities Routing

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

5.1.6 Circuit Design Layout

At the request of the Customer, the Telephone Company will provide a Design Layout Report (DLR) setting forth the make-up of the facilities and services provided under Special Access to aid the Customer in designing its overall service. The information in the DLR will be provided to the Customer at no charge and updated whenever facilities provided to the Customer are materially changed.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.1 General (Cont'd)

5.1.7 Acceptance Testing

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

For Voice Grade Services (VG): loss, 3-tone slope, d.c. continuity and operational signaling, where technically appropriate. Where a four-wire voice transmission interface provides two-wire voice transmission (i.e., there is a four-wire to two-wire conversion), balance (equal level echo path loss) will also be tested. Additionally, C-notched noise and C-message noise tests will be provided where technically appropriate, as well as frequency response, harmonic distortion, phase jitter, impulse noise, and delay distortion for all analog facilities.

Test results will be made available to the Customer upon request.

All other Special Access Services will be tested to the performance parameters specified for the individual services.

5.1.8 Ordering Options and Conditions

The facilities provided under Special Access can be ordered by using a Facilities Access Order as specified in Section 9. Minimum period and cancellation charges associated with Special Access Service are also included in Section 9.

5.1.9 Alternate Use

Alternate use occurs when a Customer uses a service for different types of transmission at different times. The Customer may transfer from one type of operation to another at will. A Customer may use transmission services in any privately beneficial way but, where technical or engineering changes are required to effectuate an alternate use, charges set forth in Section 8 of this tariff may be applicable.

Alternate uses will be allowed provided that such use meets the technical protection parameters as set forth in Section 5.2.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service

This section includes the technical service descriptions for each type of Analog and Digital service provided, typical applications for which each type of service can be used, the Optional Features and Functions available with specific services, transmission performances, and the standard protocol combinations with which service can be provided.

When ordering Special Access Service, the Customer must select the type of channel desired from the nine categories of Special Access Service. These categories are:

- Analog:
  - Narrowband 1
  - Narrowband 2
  - Voice Grade
  - Program Audio
  - Video
  - Wideband
- Digital:
  - Wideband
  - Digital Data
  - High Capacity

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. 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:

Narrowband 1 and 2	PUB 62502
Voice Grade	TR-NPL-000335 PUB 41004, Table 4
Program Audio	TR-NPL-000337 and Associated Addendum
Video	PUB 62504 and Associated Addendum
Wideband Analog	PUB 62505 and Associated Addendum
Wideband Digital	PUB 62506
Digital Data	PUB 62507 PUB 62310
High Capacity	TR-NPL-000342 PUB 62411

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services

(A) Narrowband Service

(1) Narrowband 1 Service

(a) Description

A Narrowband 1 (NB1) channel is an unconditioned two-wire channel capable of transmitting low speed varying signals at rates up to 30 baud. This channel is provided by metallic or equivalent facilities.

(b) Transmission Specifications

- DC Resistance Between Conductors
- Loop Resistance
- Shunt Capacitance

The technical specifications for these parameters are set forth in Technical Reference PUB 62502.

(c) Standard Protocol Combinations

A Narrowband 1 channel is available with the standard protocol combinations set forth below. Non-standard protocols are available at rates determined on an individual case basis.

2DC8-3 - 2DC8-3
2DC8-2 - 2DC8-1
2DC8-1 - 2DC8-2

(d) Optional Features and Functions

- Central Office Bridging: provides for the parallel connection of one virtual circuit to another virtual circuit without interrupting the integrity or continuity of the first.

- Bridging: up to 25 Customer designated premises - special bridging required for McCullough signaling.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(A) Narrowband Service (Cont'd)

(1) Narrowband 1 Service (Cont'd)

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

Additional features and functions are available as set forth in Section 5.5.1.

(2) Narrowband 2 Service

(a) Description

A Narrowband 2 (NB2) channel is an unconditioned channel for transmission of asynchronous transitions between two current levels at rates of up to 150 baud. This channel is furnished for half-duplex or duplex operation. Neither direct current continuity of this service nor the capability to transport continuously alternating current is assured.

(b) Transmission Specifications

- Telegraph Distortion

The technical specifications for this parameter are set forth in Technical Reference PUB 62502.

(c) Standard Protocol Combinations

A Narrowband 2 channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

2TT2-2	- 2TT2-2	4DB2-10	- 4TT2-2
2TT2-3	- 2TT2-2	4DB2-43**	- 4TT2-2
2DB2-10	- 2TT2-2	2DB2-10	- 2TT2-6
2DB2-43**	- 2TT2-2	2DB2-43**	- 2TT2-6

** Supplemental Channel Assignment information required.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(A) Narrowband Service (Cont'd)

(2) Narrowband 2 Service (Cont'd)

(c) Standard Protocol Combinations (Cont'd)

4DB2-10	- 2TT2-2	4DB2-10	- 2TT2-6
4DB2-43**	- 2TT2-2	4DB2-43**	- 2TT2-6
2TT2-3	- 4TT2-2	2DB2-43**	- 4TT2-6
2DB2-10	- 4TT2-2	4TT2-6	- 4TT2-6
2DB2-43**	- TT2-2	4DB2-43**	- 4TT2-6
4TT2-2	- 4TT2-2	2DB2-10	- 101A2
4DB2-10	- 101A2	2DB2-43**	- 101A2
4DB2-43**	- 101A2		

(d) Optional Features and Functions

- Central Office bridging: provides for the parallel connection of one virtual circuit to another virtual circuit without interrupting the integrity or continuity of the first.

Additional features and functions are available as set forth in Section 5.5.1.

(B) Voice Grade Service

(1) Description

A Voice Grade (VG) channel is a channel 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.

**Supplemental Channel Assignment information required.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(2) Transmission Specifications

- Attenuation Distortion
- C-Message Noise
- Echo Control
- Envelope Delay Distortion
- Frequency Shift
- Impulse Noise
- Intermodulation Distortion
- Phase Hits, Gain Hits, and Dropouts
- Phase Jitter
- Signal-to-C Message Noise
- Signal-to-C Notch Noise

The technical specifications for these parameters (except for dropouts, gain hits, and phase hits) are set forth in Technical Reference TR-NPL-000335. The technical specifications for dropouts, phase hits, and gain hits are set forth in Technical Reference PUB 41004, Table 4.

Increased performance specifications can be attained with the provision of the appropriate Optional Features and Functions under Section 5.5.1.

(3) Standard Protocol Combinations

A Voice Grade channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

2NO2	- 2NO2	4DS9*	- 2LO2	4DS9*	- 2GS2
4NO2	- 2NO2	4LS2-X	- 2LO2	4GO2-X	- 2GS2
4AH5-B**	- 2NO2	2LO2	- 2LS2	4LS2	- 2LA2
4AH6-C**	- 2NO2	4DSO*	- 2LS2	4LS2	- 2LB2
4AH6-D**	- 2NO2	4DS6*	- 2LS2	4LS2	- 2LC2
4DSO*	- 2NO2	4LO2-X	- 2LS2	4LS2	- 2LO3
4DS6*	- 2NO2	2GS2	- 2GO2	4SF2	- 2LA2
4DS9*	- 2NO2	4GS2	- 2GO2	4SF2	- 2LB2
4NO2	- 4NO2	4AH5-B**	- 2GO2	4SF2	- 2LC2
4AH5-B**	- 4NO2	4AH6-C**	- 2GO2	4SF2	- 2LO3
4AH6-C**	- 4NO2	4AH6-D**	- 2GO2	4AH5-B**	- 2LA2
4AH6-D**	- 4NO2	4DSO*	- 2GO2	4AH5-B**	- 2LB2
4DSO*	- 4NO2	4DS6*	- 2GO2	4AH5-B**	- 2LC2
4DS6*	- 4NO2	4DS9*	- 2GO2	4AH5-B**	- 2LO3
4DS9*	- 4NO2	4GS2-X	- 2GO2	4DSO*	- 2LA2
4NO2	- 2LO2	2GO2	- 2GS2	4DSO*	- 2LA2
4LS2	- 2LO2	4GO2	- 2GS2	4DSO*	- 2LC2
4AH5-B**	- 2LO2	4AH5-B**	- 2GS2	4DSO*	- 2LO3
4AH6-C**	- 2LO2	4AH6-C**	- 2GS2	4DS6*	- 2LA2
4AH6-D**	- 2LO2	4AH6-D**	- 2GS2	4DS6*	- 2LB2
4DSO*	- 2LO2	4DSO*	- 2GS2	4DS6	- 2LC2
4DS6*	- 2LO2	4DS6*	- 2GS2	4DS6	- 2LO3
4DS9*	- 2LA2	4LO2	- 2LS3	4DS6*	- 2LS2-M
4DS9*	- 2LB2	4LO2	- 2LS3-M	4DS6*	- 2LS3
4DS9*	- 2LC2	4SF2	- 2LS2	4DS6*	- 2LS3-M
4DS9*	- 2LO3	4SF2	- 2LS2-M	4DS9*	- 2LS2
4GS2	- 2GO3	4SF2	- 2LS3	4SD9*	- 2LS2-M

* See 5.3.3 following for explanation.
** Compatible only with a multiples 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4SF2	- 2GO3	4SF2	- 2LS3-M	4DS9*	- 2LS3
4AH6-C**	- 2LA2	4AH5-B**	- 2LS2	4DS9*	- 2LS3-M
4AH6-C**	- 2LB2	4AH5-B**	- 2LS2-M	4LO2	- 4LS2
4AH6-C**	- 2LC2	4AH5-B**	- 2LS3	4SF2	- 4LS2
4AH6-C**	- 2LO3	4AH5-B**	- 2LS3-M	4DSO*	- 4LS2
4AH6-D**	- 2LA2	4AH6-C**	- 2LS2	4AH5-B**	- 4LS2
4AH6-D**	- 2LB2	4AH6-C**	- 2LS2-M	4AH6-C**	- 4LS2
4AH6-D**	- 2LC2	4AH6-C**	- 2LS3	4AH6-D**	- 4LS2
4AH6-D**	- 2LO3	4AH6-C**	- 2LS3-M	4DS6*	- 4LS2
4AH5-B**	- 2GO3	4AH6-D**	- 2LS2	4DS9*	- 4LS2
4AH6-C**	- 2GO3	4AH6-D**	- 2LS2-M	4LR2	- 2LR2
4AH6-D**	- 2GO3	4AH6-D**	- 2LS3	4SF2	- 2LR2
4DSO*	- 2GO3	4AH6-D**	- 2LS3-M	4DSO*	- 2LR2
4DS6*	- 2GO3	4DSO*	- 2LS2	4DS6*	- 2LR2
4DS9*	- 2GO3	4DSO*	- 2LS2-M	4DS9*	- 2LR2
4GS2-X	- 2GO3	4DSO*	- 2LS3	4AH5-B**	- 2LR2
4LO2	- 2LS2	4DSO*	- 2LS3-M		
4LO2	- 2LS2-M	4DS6*	- 2LS2		
4AH6-C**	- 2LR2	4AH5-B**	- 2AC2	4DS9*	- 2GS3-C
4AH6-D**	- 2LR2	4AH5-B**	- 2AC2-R	4DS9*	- 4GS2-C
4LR2	- 4LR2	4AH5-B**	- 4AC2	4DS9*	- 4GS2
4SF2	- 4LR2	4AH5-B**	- 4AC2-R	4AH5-B**	- 2GS3-C
4DSO*	- 4LR2	4AH6-C**	- 2AC2	4AH5-B**	- 4GS2-C
4DS6*	- 4LR2	4AH6-C**	- 2AC2-R	4AH5-B**	- 4GS2
4DS9*	- 4LR2	4AH6-C**	- 4AC2	4AH6-C**	- 2GS3-C

* See 5.3.3 following for explanation.
** Compatible only with a Multiples 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4AH5-B**	- 4LR2	4AH6-C**	- 4AC2-R	4AH6-C**	- 4GS2-C
4AH6-C**	- 4LR2	4AH6-D**	- 2AC2	4AH6-C**	- 4GS2
4AH6-D**	- 4LR2	4AH6-D**	- 2AC2-R	4AH6-D**	- 2GS3-C
4AB2	- 4AC2	4AH6-D**	- 4AC2	4AH6-D**	- 4GS2-C
4AB2	- 4AC2-R	4AH6-D**	- 4AC2-R	4AH6-D**	- 4GS2
4AB2	- 2AC2	4DSO*	- 4SF2-LO	4SF2	- 2RV2-T
4AB2	- 2AC2-R	4DSO*	- 4SF2-LS	4SF2	- 2RV3-T
4SF2	- 4AC2	4DS6*	- 4SF2-LO	4DSO*	- 2RV2-T
4SF2	- 4AC2-R	4DS6*	- 4SF2-LS	4DSO*	- 2RV3-T
4SF2	- 2AC2	4DS9*	- 4SF2-LO	4DS6*	- 2RV2-T
4SF2	- 2AC2-R	4DS9*	- 4SF2-LS	4DS6*	- 2RV3-T
4DSO*	- 2AC2	4GO2	- 2GS3-C	4SD9*	- 2RV2-T
4DSO*	- 2AC2-R	4GO2	- 4GS2-C	4SD9*	- 2RV3-T
4DSO*	- 4AC2	4GO2	- 4GS2	4AH5-B**	- 2RV2-T
4DSO*	- 4AC2-R	4SF2	- 2GS3-C	4AH5-B**	- 2RV3-T
4DS6*	- 2AC2	4SF2	- 4GS2-C	4AH6-C**	- 2RV2-T
4DS6*	- 2AC2-R	4SF2	- 4GS2	4AH6-C**	- 2RV3-T
4DS6*	- 4AC2	4DSO*	- 2GS3-C	4AH6-D**	- 2RV2-T
4DS6*	- 4AC2-R	4DSO*	- 4GS2-C	6EA2-E	- 2RV2-T
4DS9*	- 2AC2	4DSO*	- 4GS2	6EA2-E	- 2RV3-T
4DS9*	- 2AC2-R	4DS6*	- 2GS3-C	6EA2-M	- 2RV2-T
4DS9*	- 4AC2	4DS6*	- 4GS2-C	6EA2-M	- 2RV3-T
4DS9*	- 4AC2-R	4DS6*	- 4GS2		
8EB2-E	- 2RV2-T	8EB2-M	- 4EA2-E	4DSO*	- 6EA2-E
8EB2-E	- 2RV3-T	8EB2-M	- 6EB2-M	4DSO*	- 8EB2-M
8EB2-M	- 2RV2-T	8EB2-M	- 6EB2-E	4DSO*	- 8EB2-E

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

8EB2-M	- 2RV3-T	8EB2-M	- 6EA2-M	4DSO*	- 2CT3
6EA2-E	- 4EA2-M	8EB2-M	- 6EA2-E	4DSO*	- 4CT2
6EA2-E	- 4EA2-E	8EB2-M	- 8EB2-M	4DS6*	- 4EA2-M
6EA2-E	- 6EB2-M	8EB2-M	- 8EB2-E	4DS6*	- 4EA2-E
6EA2-E	- 6EB2-E	8EB2-M	- 8EB2-E	4DS6*	- 6EB2-M
6EA2-E	- 6EA2-M	8EB2-M	- 2CT3	4DS6*	- 6EB2-E
6EA2-E	- 6EA2-E	8EB2-M	- 4CT2	4DS6*	- 6EA2-M
6EA2-E	- 8EB2-M	8EC2	- 4EA2-M	4DS6*	- 6EA2-E
6EA2-E	- 8EB2-E	8EC2	- 4EA2-E	4DS6*	- 8EB2-M
6EA2-E	- 2CT3	8EC2	- 6EB2-M	4DS6*	- 8EB2-E
6EA2-E	- 4CT2	8EC2	- 6EB2-E	4DS6*	- 2CT3
6EA2-M	- 4EA2-M	8EC2	- 6EA2-M	4DS6*	- 4CT2
6EA2-M	- 4EA2-E	8EC2	- 6EA2-E	4DS9*	- 4EA2-M
6EA2-M	- 6EB2-M	8EC2	- 8EB2-M	4DS9*	- 4EA2-E
6EA2-M	- 6EB2-E	8EC2	- 8EB2-E	4DS9*	- 6EB2-M
6EA2-M	- 6EA2-M	8EC2	- CT3	4DS9*	- 6EB2-E
6EA2-M	- 6EA2-E	8EC2	- 4CT2	4DS9*	- 6EA2-M
6EA2-M	- 8EB2-M	4SF2	- 4EA2-M	4DS9*	- 6EA2-E
6EA2-M	- 8EB2-E	4SF2	- 4EA2-E	4DS9*	- 8EB2-M
6EA2-M	- 2CT3	4SF2	- 6EB2-M	4DS9*	- 8EB2-E
6EA2-M	- 4CT2	4SF2	- 6EB2-E	4DS9*	- 2CT3
8EB2-E	- 4EA2-M	4SF2	- 6EA2-M	4DS9*	- 4CT2
8EB2-E	- 4EA2-E	4SF2	- 6EA2-E	4AH5-B**	- 4EA2-M
8EB2-E	- 6EB2-M	4SF2	- 8EB2-M	4AH5-B**	- 4EA2-E
8EB2-E	- 6EB2-E	4SF2	- 8EB2-E	4AH5-B**	- 6EB2-M
8EB2-E	- 6EA2-M	4SF2	- 2CT3	4AH5-B**	- 6EB2-E

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

8EB2-E	- 6EA2-E	4SF2	- 4CT2	4AH5-B**	- 6EA2-M
8EB2-E	- 8EB2-M	4DSO*	- 4EA2-M	4AH5-B**	- 6EA2-E
8EB2-E	- 8EB2-E	4DSO*	- 4EA2-E	4AH5-B**	- 8EB2-M
8EB2-E	- 2CT3	4DSO*	- 6EB2-M	4AH5-B**	- 8EB2-E
8EB2-E	- 4CT2	4DSO*	- 6EB2-E	4AH5-B**	- 2CT3
8EB2-M	- 4EA2-M	4DSO*	- 6EA2-M		
4AH5-B**	- 4CT2	4NO2	- 4NO2-S	4DS6*	- 4NO2-S
4AH6-C**	- 4EA2-M	4DB2	- 4DA2	4DS9*	- 4DA2
4AH6-C**	- 4EA2-E	4DB2	- 4DA2-S	4DS9*	- 4DA2-S
4AH6-C**	- 6EB2-M	4DB2	- 6DA2	4DS9*	- 6DA2
4AH6-C**	- 6EB2-E	4DB2	- 6DA2-S	4DS9*	- 6DA2-S
4AH6-C**	- 6EA2-M	4DB2	- 4NO2	4DS9*	- 4NO2-S
4AH6-C**	- 6EA2-E	4DB2	- 4NO2-S	4AH5-B**	- 4DA2
4AH6-C**	- 8EB2-M	2DB2	- 2DA2	4AH5-B**	- 4DA2-S
4AH6-C**	- 8EB2-E	2DB2	- 2NO2	4AH5-B**	- 6DA2
4AH6-C**	- 2CT3	4DB2	- 2DA2	4AH5-B**	- 6DA2-S
4AH6-C**	- 4CT2	4DB2	- 2NO2	4AH5-B**	- 4NO2-S
4AH6-D**	- 4EA2-M	2NO2	- 2DA2	4AH6-C**	- 4DA2
4AH6-D**	- 4EA2-E	4NO2	- 2DA2	4AH6-C**	- 4DA2-S
4AH6-D**	- 6EB2-M	4NO2-S	- 2DA2	4AH6-C**	- 6DA2
4AH6-D**	- 6EB2-E	4NO2-S	- 2NO2	4AH6-C**	- 6DA2-S
4AH6-D**	- 6EA2-M	4DS6*	- 2DA2	4AH6-C**	- 4NO2-S
4AH6-D**	- 6EA2-E	4DS9*	- 2DA2	4AH6-D**	- 4DA2
4AH6-D**	- 8EB2-M	4AH5-B**	- 2DA2	4AH6-D**	- 4DA2-S
4AH6-D**	- 8EB2-E	4AH6-C**	- 2DA2	4AH6-D**	- 6DA2
4AH6-D**	- 2CT3	4AH6-D**	- 2DA2	4AH6-D**	- 6DA2-S

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4AH6-D**	- 4CT2	4NO2-S	- 4DA2	4AH6-D**	- 4NO2-S
4DSO*	- 4SF2-EA	4NO2-S	- 4DA2-S	4DD3	- 4DE2
4DSO*	- 4SF2-GO	4NO2-S	- 6DA2	4DD3	- 2DE2
4DSO*	- 4SF2-LO	4NO2-S	- 6DA2-S	4NO2	- 4DE2
4DS6*	- 4SF2-EA	4NO2-S	- 4NO2	4NO2	- 2DE2
4DS6*	- 4SF2-GO	4NO2-S	- 4NO2-S	4DSO*	- 4DE2
4DS6*	- 4SF2-LO	4DSO*	- 4DA2	4DSO*	- 2DE2
4DS9*	- 4SF2-EA	4DSO*	- 4DA2-S	4DS6*	- 4DE2
4DS9*	- 4SF2-GO	4DSO**	- 6DA2	4DS6	- 2DE2
4DS9*	- 4SF2-LO	4DSO*	- 6DA2-S	4DS9*	- 4DE2
4NO2	- 4DA2	4DSO*	- 4NO2-S	4DS9*	- 2DE2
4NO2	- 4DA2-S	4DS6*	- 4DA2	4AH5-B**	- 4DE2
4NO2	- 6DA2	4DS6*	- 6DA2	4AH5-B**	- 2DE2
4NO2	- 6DA2-S	4DS6*	- 6DA2-S	4AH6-C**	- 4DE2
4AH6-C**	- 2DE2	4GO2	- 2GS2-M	4DS9*	- 8EC2
4AH6-D**	- 4DE2	4GO2-X	- 2GS2-M	4AH5-B**	- 8EC2
4AH6-D**	- 2DE2	4GO2-X	- 2GS3-M	4AH6-C**	- 8EC2
4DA2	- 4DA2	4SF2	- 2GS2	4AH6-D**	- 8EC2
4DA2	- 4DA2-S	4SF2	- 2GS3-M	6EA2-E	- 4DX2
6DA2	- 4DA2	4SF2	- 2GS2-M	6EA2-M	- 4DX2
6DA2	- 4DA2-S	4DSO*	- 2GS3-M	8EB2-E	- 4DX2
4DA2-S	- 4DA2	4DSO*	- 2GS2-M	8EB2-M	- 4DX2
4DA2-S	- 4DA2-S	4DS6*	- 2GS2-M	4SF2	- 4DX2
6DA2-S	- 4DA2	4DS6*	- 2GS3-M	4DSO*	- 4DX2
6DA2-S	- 4DA2-S	4DS9*	- 2GS2-M	4DS6*	- 4DX2
4DB2	- 4DA2	4DS9*	- 2GS3-M	4DS9*	- 4DX2

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4DB2	- 4DA2-S	4AH5-B**	- 2GS2-M	4AH5-B**	- 4DX2
4DA2	- 6DA2	4AH5-B**	- 2GS3-M	4AH6-C**	- 4DX2
4DA2	- 6DA2-S	4AH6-C**	- 2GS2-M	4AH6-D**	- 4DX2
6DA2	- 6DA2	4AH6-D**	- 2G53-M	4DSO*	- 4SF-EA
6DA2	- 6DA2-S	4GO2-X	- 2GS2	4DS6*	- 4SF-EA
4DA2-S	- 6DA2	4GO2-X	- 4GS2	4DS9*	- 4SF-EA
4DA2-S	- 6DA2-S	4GO2-X	- 2GS3-C	2TF2	- 2TF2
6DA2-S	- 6DA2	4GO2-X	- 4GS2-C	4DSO*	- 2TF2
6DA2-S	- 6DA2-S	4LO2-X	- 2LS2	4DS6*	- 2TF2
4DSO*	- 4NO2-S	4LO2-X	- 4LS2	4DS9*	- 2TF2
4DS6*	- 4NO2-S	4LO2-X	- 2LS2-M	4AH6-B**	- 2TF2
4DS9*	- 4NO2-S	4LO2-X	- 2LS3-M	4AH6-C**	- 2TF2
4AH5-B**	- 4NO2-S	6EA2-E	- 8EC2	4AH6-D**	- 2TF2
4AH6-C**	- 4NO2-S	6EA2-M	- 8EC2	4TF2	- 4TF2
4AH6-D**	- 4NO2-S	8EB2-E	- 8EC2	4DSO*	- 4TF2
4LS2-X	- 2LA2	8EB2-M	- 8EC2	4DS6*	- 4TF2
4LS2-X	- 2LB2	8EC2	- 8EC2	4DS9*	- 4TF2
4LS2-X	- 2LC2	4SF2	- 8EC2	4AH5-B**	- 4TF2
4LS2-X	- 2LO3	4DSO*	- 8EC2	4AH6-C**	- 4TF2
AGO2	- 2GS3-M	4DS6*	- 8EC2		
4AH6-D**	- 4TF2	6EX2-A	- 4LS2	6EX2-A	- 2GS2-M
2PR2	- 2PR2	6EX2-A	- 2LR2	4DX2	- 8EC2
2DB2	- 2PR2	6EX2-A	- 2GS3-C	4DX2-X	- 8EC2
2NO2	- 2PR2	6EX2-A	- 4GS2-C	4DX2	- 2LS2
4DSO*	- 2PR2	6EX2-A	- 4GS2	6EA2-E	- 2LS2
4DS6*	- 2PR2	4RV2-O	- 2RV2-T	6EA2-M	- 2LS2

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4DS9*	- 2PR2	4RV2-O	- 2RV3-T	8EB2-E	- 2LS2
4AH5-B**	- 2PR2	4DX2	- 2RV2-T	8EB2-M	- 2LS2
4AH6-C**	- 2PR2	4DX2	- 2RV3-T	4DX2	- 4DX2
4AH6-D**	- 2PR2	4DX2-X	- 2RV2-T	4DX2-X	- 4DX2
4PR2	- 4PR2	4DX2-X	- 2RV3-T	2NO2	- 4NO2
4DB2	- 4PR2	4DX2	- 4EA2-M	2LS2	- 2LA2
4NO2	- 4PR2	4DX2	- 4EA2-E	2LS2	- 2LB2
4DSO*	- 4PR2	4DX2	- 6EB2-M	2LS2	- 2LC2
4DS6*	- 4PR2	4DX2	- 6EB2-E	2LS2	- 2LO3
4DS9*	- 4PR2	4DX2	- 6EA2-M	2LR2	- 2LR2
4AH5-B**	- 4PR2	4DX2	- 6EA2-E	2LR2	- 4LR2
4AH6-C**	- 4PR2	4DX2	- 83B2-M	2AC2	- 2AC2
4AH6-D**	- 4PR2	4DX2	- 83B2-E	2AC2	- 4AC2
6EX2-B	- 2LO2	4DX2	- 2CT3	4AC2	- 2AC2
6EX2-A	- 2LS2	4DX2	- 4CT2	4AC2	- 4AC2
2LO3	- 2LS2	4DX2-X	- 4EA2-M	2GS2	- 2GO3
6EX2-B	- 2GO2	4DX2-X	- 4EA2-E	2LS2	- 2LO2
6EX2-A	- 2GS2	4DX2-X	- 6EB2-M	2LS2	- 4LO2
6EX2-B	- 2LA2	4DX2-X	- 6EB2-E	4LS2	- 4LO2
6EX2-B	- 2LB2	4DX2-X	- 6EA2-M	4EA2-E	- 4EA2-E
6EX2-B	- 2LC2	4DX2-X	- 6EA2-E	4EA2-E	- 4EA2-M
6EX2-B	- 2LO3	4DX2-X	- 8EB2-M	4EA2-E	- 6EA2-E
6EX2-B	- 2GO3	4DX2-X	- 8EB2-E	4EA2-E	- 6EA2-M
6EX2-A	- 2LS2-M	4DX2-X	- 2CT3	4EA2-E	- 6EA2-E
6EX2-A	- 2LS3	4DX2-X	- 4CT2	4EA2-E	- 6EA2-M
6EX2-A	- 2LS3-M	6EX2-A	- 2GS3-M	4EA2-E	- 8EB2-E

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

4EA2-E	- 8EB2-M	4GS2-C	- 4GO2	2DA2	- 4DA2
4EA2-E	- 2CT3	2CT3	- 4EA2-E	2DA2	- 6DA2
4EA2-E	- 4CT2	2CT3	- 4EA2-M	2DA2	- 2NO2
4EA2-M	- 4EA2-E	2CT3	- 6EA2-E	2DA2	- 4NO2
4EA2-M	- 4EA2-M	2CT3	- 6EA2-M	2DA2	- 4DA2-S
4EA2-M	- 6EA2-E	2CT3	- 6EB2-E	2DA2	- 6DA2-S
4EA2-M	- 6EA2-M	2CT3	- 6EB2-M	2DA2	- 4NO2-S
4EA2-M	- 6EB2-E	2CT3	- 8EB2-E	4DA2	- 2DA2
4EA2-M	- 6EB2-M	2CT3	- 8EB2-M	4DA2	- 2NO2
4EA2-M	- 8EB2-E	2CT3	- 2CT3	4DA2	- 4NO2
4EA2-M	- 8EB2-M	2CT3	- 4CT2	4DA2	- 4NO2-S
4EA2-M	- 2CT3	4CT2	- 4EA2-E	6DA2	- 2DA2
4EA2-M	- 4CT2	4CT2	- 4EA2-M	6DA2	- 4NO2
6EB2-M	- 2CT3	4CT2	- 6EA2-E	6DA2	- 2NO2
6EB2-M	- 4CT2	4CT2	- 6EA2-M	6DA2	- 4NO2-S
6EB2-E	- 2CT3	4CT2	- 6EB2-E	4DA2-S	- 2DA2
6EB2-E	- 4CT2	4CT2	- 6EB2-M	4DA2-S	- 2NO2
2GS2	- 4GO2	4CT2	- 8EB2-E	4DA2-S	- 4NO2
2GS3-C	- 2GO2	4CT2	- 8EB2-M	4DA2-S	- 4NO2-S
2GS3-C	- 4GO2	4CT2	- 2CT3	6DA2-S	- 2DA2
4GS2	- 4GO2	4CT2	- 4CT2	6DA2-S	- 2NO2
4GS2-C	- 2GO2	2DA2	- 2DA2	6DA2-S	- 4NO2
				6DA2-S	- 4NO2-S

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

2NO2	- 4DA2
2NO2	- 6DA2
2NO2	- 2NO2
2NO2	- 4NO2
2NO2	- 4DA2-S
2NO2	- 6DA2-S
2NO2	- 4NO2-S
4NO2	- 2NO2
4NO2	- 4NO2
4NO2	- 4NO2-S
4NO2-S	- 2NO2

* See 5.3.3 following for explanation.
** Compatible only with a multiplex 4-Wire High Capacity analog facility interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

(4) Optional Features and Functions

Central Office Bridging Capability

- Voice bridging (two-wire or four-wire): provides for the parallel connection of one voice circuit to another without interrupting the integrity or continuity of the first.

- Data bridging (two-wire or four-wire): provides for the parallel connection of one data circuit to another without interrupting the integrity or continuity of the first.

- Telephoto bridging (two-wire or four-wire): provides for the parallel connection of one Telephoto circuit to another without interrupting the integrity or continuity of the first.

Central Office Multiplexing

Voice to Narrowband: A voice frequency telegraph system arrangement that converts a Voice Grade channel to Narrowband channels using frequency division multiplexing.

Conditioning

Conditioning provides more specific transmission characteristics for data or telephoto services. C-Type conditioning controls attenuation distortion and envelope delay distortion; DA-Type conditioning controls the Signal to C-Notched Noise Ratio and intermodulation distortion. Sealing Current helps maintain continuity on dry metallic loops. Telephone conditioning controls attenuation distortion and envelope delay distortion.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

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

Conditioning (Cont'd)

Conditioning is charged for on a channel termination basis. C-Type and DA-Type conditioning may be combined on the same service.

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 of C-Type Conditioning are:

Attenuation Distortion
(Frequency Response)
Relative 1004 Hz

Frequency Range (Hz)	Variation (dB)
504-2804	-1.5 + 2.5
304-3004	-1.5 + 5.5

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

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

C-Type Conditioning (Cont'd)

Envelope Delay Distortion

Frequency Range (Hz)	Variation (micro-seconds)
1004-2604	≤ 475
604-2604	≤ 1450
504-2604	≤ 2950

Improved Attenuation Distortion

Improved Attenuation Distortion upgrades the frequency vs. loss response limits as shown below:

Frequency Range (Hz)	Variation (dB)
404-2804	-.8 to + 1.5 dB
304-3004	-.8 to + 2.5 dB
304-3204	-1.5 to + 5.5 dB

Improved Envelope Delay Distortion

Frequency (Hz)	Variation (microseconds)
1004-2604	≤ 85
804-2604	≤ 150
604-2604	≤ 250
504-2804	≤ 550
504-3004	≤ 2950

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

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

DA-Type Conditioning

DA-Type Conditioning is provided for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. DA-Type conditioning is available for two-point services or multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameters for DA-type conditioning are:

- Signal to C-Notched Noise Ratio is equal to or greater than 34 dB.

-Intermodulation distortion.

- Signal to second order modulation products (R2) is equal to or greater than 40 dB.

- Signal to third order modulation products (R3) is equal to or greater than 44 dB.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

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

DA-Type Conditioning (Cont'd)

When a service equipped with DA-Type conditioning is used for voice communications, the quality of the voice transmission may not be satisfactory.

Telephoto Conditioning

Telephoto Conditioning is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Conditioning are:

Attenuation Distortion
(1004 Hz Reference)

Frequency Range (Hz)	Variation (dB)
500-3000	-0.5 to +1.5
300-3200	-1.0 to +2.5

Envelope Delay Distortion

Frequency Range (Hz)	Variation (micro-seconds)
1000-2600	≤ 75
800-2800	≤ 130

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(B) Voice Grade Service (Cont'd)

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

Hybird

Provides conversion from a four-wire channel to two-wire termination at a Customer premises. Required to meet effective four-wire performance with a two-wire Customer premises protocol combination.

Improved Return Loss for Effective Four-Wire Transmission

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.

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 point of termination and two-wire at the other point of termination. Placement of Telephone Company equipment may be required at the Customer's premises with the two-wire point of termination. The Improved Return Loss parameters are delineated in Technical Reference TR-NPL-000335.

Additional features and functions are available as set forth in Section 5.5.1.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(C) Program Audio Service

(1) Description

A Program Audio (PA) channel is a channel measured in Hz for the transmission of a complex signal voltage. The actual bandwidth is a function of the protocol combination selected by the Customer. Only one-way transmission is provided.

Program Audio channels are provided in the following bandwidths:

200 - 3500 Hz
100 - 5000 Hz
50 - 8000 Hz
50 - 15000 Hz

(2) Transmission Specifications

- Actual measured loss
- Gain/Frequency Distortion
- Signal-to-Idle Circuit Noise

The technical specifications are set forth in Technical Reference TR-NPL-000337 and associated Addendum.

(3) Standard Protocol Combinations

A Program Audio channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(C) Program Audio Service (Cont'd)

(3) Standard Protocol Combinations (Cont'd)

2PG2-3	- 2PG2-3	2PG2-3	- 2PG1-3
4DS9-15E*	- 2PG2-3	4DS9-15E*	- 2PG1-3
4AH5-8**	- 2PG2-3	4AH5-B**	- 2PG1-3
4AH6-C**	- 2PG2-3	4AH6-C**	- 2PG1-3
4AH6-D**	- 2PG2-3	4AH6-D**	- 2PG1-3
2PG2-5	- 2PG2-5	2PG2-5	- 2PG1-5
4DS9-15F*	- 2PG2-5	4DS9-15F*	- 2PG1-5
4AH5-B**	- 2PG2-5	4AH5-B**	- 2PG1-5
4AH6-C**	- 2PG2-5	4AH6-C**	- 2PG1-5
4AH6-D**	- 2PG2-5	4AH6-D**	- 2PG1-5
2PG2-8	- 2PG2-8	2PG2-8	- 2PG1-8
4DS9-15G*	- 2PG2-8	4DS9-15G*	- 2PG1-8
4AH5-B**	- 2PG2-8	4AH5-B**	- 2PG1-8
4AH6-C**	- 2PG2-8	4AH6-C**	- 2PG1-8
4AH6-D**	- 2PG2-8	4AH6-D**	- 2PG1-8
2PG2-1	- 2PG2-1	2PG2-1	- 2PG1-1
4DS9-15H*	- 2PG2-1	4DS9-15H*	- 2PG1-1
4AH5-B**	- 2PG2-1	4AH5-B**	- 2PG1-1
4AH6-C**	- 2PG2-1	4AH6-C**	- 2PG1-1
4AH6-D**	- 2PG2-1	4AH6-D**	- 2PG1-1

*Compatible only with a multiplexed four-wire DSX protocol option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

**Compatible only with a multiplex four-wire High Capacity Analog protocol option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(C) Program Audio Service (Cont'd)

(4) Optional Features and Functions

- Gain Conditioning - Control of 1004 Hz Actual Measured Loss at initiation of service to 0 dB + 0.5 dB.

- Central office bridging capability - provides for the parallel connection of one virtual circuit without interrupting the integrity of continuity of the first.

- Stereo - provision of a pair of gain/phase equalized channels for stereo applications.

Additional features and functions are available as set forth in Section 5.5.1.

(D) Video Service

(1) Description

A Video (TV) channel is an operational 4.2 MHz channel 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 to 15 kHz audio signal(s). The associated audio signal(s) may be either diplexed or provided as one or two separate channels. The provision and bandwidth of the associated audio signal(s) is a function of the protocol combination selected by the Customer.

For Video service, the standby of technician(s) is mandatory. The Telephone Company will inform the Customer of standby charges before providing a Firm Order Confirmation Date. Standby charges are set forth in Section 8.2.7(B).

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(D) Video Service (Cont'd)

(2) Transmission Specifications

- Video Performance: Insertion Gain Variation and Luminance Signal/CCIR Weighted Noise

- Audio Performance: Insertion Gain and Signal/15 kHz Flat Weighted Noise

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

(3) Standard Protocol Combinations

A Video channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

2TV6-1	-	4TV6-15
2TV7-1	-	4TV7-15
2TV6-2	-	6TV6-15
2TV7-2	-	6TV7-15
4TV6-5	-	4TV6-5
4TV7-5	-	4TV7-5
6TV6-5	-	6TV6-5
6TV7-5	-	6TV7-5

(4) Optional Features and Functions

Optional Features and Functions are available as set forth in Section 5.5.1.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(E) Wideband Analog Service

(1) Description

A Wideband Analog (WA) channel is a channel with a bandwidth measured in kHz for the transmission of a wideband signal. The actual bandwidth is a function of the protocol combination selected by the Customer.

Wideband Analog channels are provided in the following bandwidths:

60 kHz	-	108 kHz
312 kHz	-	552 kHz
564 kHz	-	3084 kHz
300 kHz	-	16 kHz
29 kHz	-	44 kHz

(2) Transmission Specifications

- Amplitude Stability
- Background Noise
- Frequency Shift
- Gain/Frequency Characteristics of:
  - Group Connections
  - Supergroup Connections
  - Mastergroup Connections
- Impulse Noise
- Net Loss Variations
- Pilot Slot
- Spurious Single
- Frequency Tone

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

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.1 Analog Services (Cont'd)

(E) Wideband Analog Service (Cont'd)

(3) Standard Protocol Combinations

A Wideband Analog channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

4AH5-B	-	4AH5-B
4AH6-C*	-	4AH5-B
4AH6-D*	-	4AH5-B
4AH6-C	-	4AH6-C
4AH6-D*	-	4AH6-C
4AH6-D	-	4AH5-D
4WD-1	-	4WA5-1
4WD-2	-	4WA5-1

*Compatible only with a multiplexed four-wire High Capacity Analog protocol option at the Customer's designated premises and where the Customer provides subsequent and channel assignment data.

(4) Optional Features and Functions

- Central office multiplexing: provides a voice frequency telegraph system arrangement that converts a Voice Grade channel to a Wideband channel using frequency division multiplexing.

Additional features and functions are available as set forth in Section 5.5.1.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services

(A) Wideband Digital Service

(1) Description

A Wideband Digital (WD) channel is a channel for the transmission of synchronous serial data at the rate of 19.2, 50.0, or 230.4 kpbs.

Optional arrangements are available for additional transmission rates or for the transmission of nonsynchronous data. The actual bit rate is a function of the protocol combination selected by the Customer. A voiceband coordinating channel is provided with this service.

(2) Transmission Specifications

- Error-Free Seconds

While in service, 98.75 percent of the one-second intervals will be error-free 95 percent of the time.

(3) Standard Protocol Combinations

A Wideband Digital channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

8W85-19S	-	12WC6-10
8WB5-19S	-	12WC6-18
8WB5-19A	-	10WC6-19
8WB5-50S	-	12WC6-50
8WB5-40S	-	12WC6-40
82B-50A	-	10WC6-50
8WB5-23S	-	12WC6-23S
82B5-23A	-	12WC6-23

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(A) Wideband Digital Service (Cont'd)

(4) Optional Features and Functions

Additional features and functions are available as set forth in Section 5.5.1.

(B) Digital Data Access Service

(1) Description

A Digital Data Access (DA) channel is a channel for duplex four-wire transmission of 2.4, 4.8, 9.6, or 56 kbps. The actual bit rate is a function of the protocol combination selected by the Customer. The channel provides a synchronous service with timing provided through the Telephone Company's facilities to the Customer in the received bit stream. Digital Data Access channels are only available via Telephone Company designated digital hubs. All other locations are connectible through an analog off-network extension which is provided as a Voice Grade service as set forth in Section 5.2.1(B).

The Customer may provide in accordance with Part 68 of the FCC Rules and Regulations the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data Access channel at the Customer premises.

(2) Transmission Specifications

- Error Free Seconds

While in service, the monthly average of the error-free seconds will be equal to or greater than 99.875%, if the channel is measured through a CSU equivalent which conforms with the specifications set forth in Technical Reference PUB 62310.

Voltages which are compatible with Digital Data Access Service are set forth in Technical Reference PUB 62507.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(B) Digital Data Access Service (Cont'd)

(3) Standard Protocol Combinations

A Digital Data Access channel is available with the standard protocol combinations set forth below. Other protocols are available at rates determined on an individual case basis.

4DS9-15*	-	6DU5-24
6DU5-24	-	6DU5-24
4DO5	-	6DU5-24
DATAPORT	-	DATAPORT
5DS9-15*	-	6DU5-48
6DU5-48	-	6DU5-48
6DS9-15*	-	6DU5-96
6DU5-96	-	6DU5-96
4DS9-15*	-	6DU5-56
6DU5-56	-	6DU5-56

*Compatible only with a multiplexed four-wire DSX protocol option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(B) Digital Data Access Service (Cont'd)

(4) Optional Features and Functions

- Transfer arrangement: Customer controlled equipment used to selectively terminate the service in either of two locations within the same rate center.

- Central office bridging: provides for the parallel connection of one virtual circuit to another virtual circuit without interrupting the integrity or continuity of the first.

- Secondary channel a data transmission channel having a lower signaling rate capability than the primary channel in a system in which two channels share a common interface.

- The Minimum Term Discount Plan rules and regulations for Digital Data Access (DA) 56 KBPS Service mirror those established for High Capacity DS1 Service under Section 5.2.2(C)(4).

Additional features and functions are available as set forth in Section 5.5.1.

(C) High Capacity Service

(1) Description

A High Capacity channel is a channel for the transmission of nominal 1.544, 3.152, 6.312, 44.736, or 274.176 Mbps asynchronous serial data. The actual bit rate is a function of the protocol combination selected by the Customer.

The Customer may provide in accordance with Part 68 of the FCC Rules and Regulations the Network Channel Terminating Equipment associated with the High Capacity channel at the Customer's premises.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(C) High Capacity Service (Cont'd)

(2) Transmission Specifications

- Error-free seconds

A 1.544 channel will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mpbs rate through a CSU equivalent which conforms with the specifications set forth in Technical Reference PUB 62411.

(3) Standard Protocol Combination

A High Capacity channel is available with the standard protocol combinations set forth below. Other protocols are available at a rate determined on on an individual case basis.

4DS9-15J	-	6DU9-A
4DS9015	-	6DU9-B
4DS9-15K	-	6DU9-B
4DS9-15K	-	6DU9-C
4DS9-31*	-	6DU9-A, B, or C
4DS0-63*	-	6DU9-A, B, or C
4DS6-44*	-	6DU9-A, B, or C
4DS6-27*	-	6DU9-A, B, or C
4DS9-31	-	4DS9-31
4DS0-63	-	4DS0-63
4DS6-44	-	4DS6-44
4DS6-27	-	4DS6-27

*Compatible only with a multiplexed four-wired DSX protocol option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(C) High Capacity Service (Cont'd)

(4) Optional Features and Functions

- Automatic Protection Switching provides protection against failure of the facilities between a customer designated premises and the wire center.

- Protection may be provided on a 1 X 1 nonexpandable basis which automatically switches to the spare channel line when the working channel fails.

- Protection may be provided on a 1 X N basis, which provides one spare channel for up to a maximum of twelve working channels which reroutes the signal to the spare line when one of the working lines fail.

- Central office multiplexing

  DS1 to Voice: Under this option the Telephone Company will provide a digital channel bank with 24 channel plug-in mounting positions. The channel plug-in units will be provided by the Telephone Company when the Customer orders each individual service and specifies the channel position to be used and the plug-in unit specific interface code required. The multiplexing is accomplished using time division multiplexing. Under this option the Telephone Company will provide a digital channel back with 24 channel plug-in mounting positions. The channel plug-in units will be provided by the Telephone Company when the Customer orders each individual service and specifies the channel position to be used and the plug-in unit specific interface code required. The multiplexing is accomplished using time division multiplexing.

Certain regulation previously found on this page can now be found on page 207.2.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(C) High Capacity Service (Cont'd)

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

- Minimum Term Discount Plans

  Minimum Term Discount Plans ("TDP") offer reduced service rates to customers who commit to purchase DS1 (or DA 56 KBPS) service for a specified period of time. Customers may choose between 18, 36, or 60 month service commitments. TDP installation charges will not exceed those installation charges assessed for installation on a month-to-month service.

- A customer with a DS1 (or DA 56 KBPS) service purchased under a month-to-month agreement may convert that service to a term discount plan. A customer may convert an existing TDP service to a longer period TDP service. Upon converting an existing plan to a longer term plan, the customer's existing applicable contract obligation will be deemed satisfied and a new term plan will be initiated. No service credit will apply towards the new plan; the new TDP service will be treated as a new service and subject to the full rate and contract obligations of the new TDP service.

- A customer who discontinues a service under a TDP prior to the end of the term may, without penalty, transfer the remaining months of the term commitment to a new like service which has been installed within 90 days prior to disconnection of the service under the original TDP. The new service must connect the customer and the end user entirely over the Telephone Company's facilities.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.2 Technical Service Descriptions for Special Access Service (Cont'd)

5.2.2 Digital Services (Cont'd)

(C) High Capacity Service (Cont'd)

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

Following completion of a TDP commitment, (N) customers have the following options:

- Initiate a new TDP commitment under which to bill the service; or

- Continue to keep the service under the applicable charges for a month-to-month service.

- Customers who choose to initiate a TDP following conversion to month-to-month may do so at any time without penalty or credit against the selected TDP.

- The customers must commit to keep a service for the life of the plan. Discontinuance of a TDP service, including the rate stability provision, without termination penalty is only permitted for a customer converting to a longer term plan, as specified in this section 5.2.2(C)(4). Penalty for early discontinuance of TDP services is described in Section 5.4.9.

- Rate Stability Provision

- A rate stability provision applies to any service purchased under a minimum term discount plan. Should TDP rates increase during the term of any given plan, the Company will continue to provide those services at the then applicable rate of the plan for the lessor of either the remaining life of the term plan or one year, subject to Commission approval. Following termination of the stability period, effective tariffed rates will apply.

Additional features and functions are available as set forth in Section 5.5.1.

Certain regulations on this page formerly appeared on page 207.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes

This section explains the protocol 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 protocol codes, and impedance levels.

Example: If the Customer specifies a 2AB2 protocol at the Customer premises, it is requesting the following:

No. of physical wires at interface	Protocol code for 20 Hz ringing	Impedance
2	AB	2

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options

Code	Option	Definition
AB		Accepts and provides a nominal 20 hz ringing signal at Customer designated premises.
AC		Accepts and provides 20 Hz ringing signal at point of termination.
	R	Two-Digit Code Select ($\leq$ 10)
AH		Analog high-capacity interface
	B	60 to 108 KHz (12 channels)
	C	312 to 552 KHz (60 channels)
	D	564 to 3084 KHz (600 channesls)
CT		CO Centrex tie trunk termination
DA		Data stream in VF frequency bank at point of termination.
	S	Sealing current option for 4 wire transmission
DB		Data stream in VF frequency band at Customer designated premises.
	10	Frequency shift (108 data set type)
	43	43A1 to 43B1 carrier format
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 (60 baud)
DD		Dataphone Select-A-Station (and TABS) interface at Customer designated premises.
DE		Dataphone Select-A-Station (and TABS) interface at point of termination.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options (Cont'd)

Code	Option	Definition
DO		Digital interface at Customer designated premises at the digital signal zero A (DS-OA).
DSO	63	6.312 Mb/s; DS-2; Robbed Bit
	63L	6.312 Mb/s; DS-2; Single Frequency
DS6	27	274.176 Mb/s; DS-4; Robbed Bit
	27L	274.176 Mb/s; DS-4; Single Frequency
	44	44.736 Mb/s; DS-3; Robbed Bit
	44L	44.736 Mb/s; DS-3; Single Frequency
DS9	15	1.544 Mb/s; DS-1; Robbed Bit
	15L	1.544 Mb/s/; DS-1; Single Frequency
	15K	1.544 Mb/s; DS-1; Extended Framing Format
DSO	63	6.312 Mb/s; DS-2; Robbed Bit
	63L	6.312 Mb/s; DS-2; Single Frequency
DS6	27	274.176 Mb/s; DS-4; Robbed Bit
	27L	274.176 Mb/s; DS-4; Single Frequency
	44	44.736 Mb/s; DS-3; Robbed Bit
	44L	44.736 Mb/s; DS-3; Single Frequency
DS9	15	1.544 Mb/s; DS-1; Robbed Bit
	15L	1.544 Mb/s/; DS-1; Single Frequency
	15K	1.544 Mb/s; DS-1; Extended Framing Format
	31	3.152 Mb/s; DS-1C; Robbed Bit
	31L	3.152 Mb/s; DS-1C; Single Frequency
DU		Digital access interface at point of termination
	24	2.4 Kb/s
	28	4.8 Kb/s
	56	56.0 Kb/s
	96	9.6 Kb/s
	A	1.544 Mb/s format per PUB 41451
	B	1.544 Mb/s format per PUB 41451 plus D4
	C	1.544 Mb/s format per PUB 41451 plus extended framing format

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options (Cont'd)

Code	Option	Definition
DX		Duplex signaling interface at customer designated premsies
	X	Simples reversal (4-wire)
EA		Type I, EM signaling at either Customer designated premises or point of termination
	E	originates on E lead
	M	originates on M lead
EB		Type II, EM signaling at either Customer designated premsises or point of termination
	E	originates on E lead
	M	originates on M lead
EC		Type III, EM signaling at Customer designated premises; originates on M lead
EX		Back-to-back carrier arrangement with tandem signaling
	A	LEC has closed end
	B	LEC provides dial tone
GO		Ground-start loop signaling - open end
	X	Simplex reversal (4-wire)
GS		Ground-start loop signaling-closed end
	E	originates on E lead
	M	originates on M lead
EC		Type III, EM signaling at Customer designated premises; originates on M lead
EX		Back-to-back carrier arrangement with tandem signaling
	A	LEC has closed end
	B	LEC provides dial tone

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options (Cont'd)

Code	Option	Definition
GO		Ground-start loop signaling - open end
	X	Simplex reversal (4-wire)
GS		Ground-start loop signaling-closed end
	C	Centrex foreign exchange trunk termination
	M	CO answering service concentrator
	X	Simplex reversal (4-wire)
IA		E.I.A. (25 pin RS - 232)
LA		End-user loop start loop signaling - Type A registered port, open end
LB		End-user loop start loop signaling - Type B registered port, open end
LC		End-user loop start loop signaling - Type C registered port, open end
LO		Loop-start signaling - open end
	X	Simplex reversal (4-wire)
LR		20 Hz automatic ringdown interface at Customer designated premises with LEC provided PLAR
LS		Loop-start loog signaling - closed end
	M	CO answering service concentrator
	X	Simplex reversal (4-wire)
NO		No signaling interface, transmission only
	S	Sealing current option for 4-wire transmission
PG		Program transmission, no dc signaling
	1	Nominal frequency from 50 to 15,000 Hz
	3	Nominal frequency from 200 to 3,500 Hz
	5	Nominal frequency from 100 to 5,000 Hz
	8	Nominal frequency from 50 to 8,000 Hz

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options (Cont'd)

Code	Option	Definition
PR		Protective relaying
RV		Loop reverse battery supervision
	O	Battery supplied by LEC, Customer originates
	T	Battery Supplied by Customer, Customer terminates
SF		Single-frequency signaling with VF band at Customer designated premises.
	AB	SF to manual ring
	EA	SF to E&M signaling
	GO	SF to loop signaling, ground start, open-end
	GS	SF to loop signaling, ground start, closed end
	LO	SF to loop signaling, loop start, open end
	LS	SF to loop signaling, loop start, closed end
	LR	SF to automatic ring
TF		Telephotograph interface
TT		Telegraph/Teletypewriter interface at either Customer designated premises or point of termination.
	2	20.0 milliamperes
	3	3.0 milliamperes
	6	62.5 milliamperes
TV		Television interface
	1	combined video and one audio signal
	2	combined video and two audio signals
	5	video plus one (or two) audio 5 kHz signal(s) on one (or two) two-wire
	15	video plus one (or two) audio 15 kHz signal(s) to be duplexed wideband bandwidth interface at point of termination.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.1 Glossary of Protocol Codes and Options (Cont'd)

Code	Option	Definition
WA		
	1	limited bandwidth
	2	nominal passband from 29,000 to 44,000 Hz
WB		wideband data interface at customer designated premises
	1	8S 18.75 Kbps, synchronous
	19A	up to 19.2 Kbps asynchronous
	19S	19.2 Kbps synchronous
	23A	up to 230.4 Kbps, asynchronous
	40S	40.8 Kbps, synchronous
	50A	up to 50.0 Kbps, asynchronous
	50S	50.0 Kbps, synchronous
	64	64.0 Kbps, restored polar
WC		wideband data interface at point of termination
	18	18.75 Kbps, synchronous
	19	for 12-wire interface: 19.2 Kbps, synchronous for 10-wire interface: up to 19.2 Kbps, asynchronous
	23	up to 230.4 Kbps, asynchronous
	23S	230.4 Kbps, synchronous
	40	40.8 Kbps, synchronous for 12-wire interface: 50.0 Kbps, synchronous
	50	for 10-wire interface: up to 50.0 Kbps, asynchronous.
WD		wideband bandwidth interface at Customer designated premises
	1	nominal passband from 300 to 18,000 Hz
	2	nominal passband from 28,000 to 44,000 Hz
	3	nomminal passband from 29,000 to 44,000 Hz

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.2 Impedance

The nominal reference impedance with which the Customer will terminate the channel for the purpose of evaluating transmission performance are:

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3
1200	4
135	5
75	6
124	7
Variable	8
100	9

5.3.3 Digital Hierarchy Protocol Codes (4DSX)

This protocol is compatible only with a multiplexed four-wire DSX-1 or higher interface option at the Customer's designated premises and where the Customer provides subsequent system and channel assignment data.

The various digital bit rates in the digital hierarchy employ the protocol code 4DS0, 4DS6 or 4DS9 plus the speed options indicated below:

SPEED OPTION	NOMINAL BIT RATE (Mbps)	DIGITAL HIERARCHY LEVEL
15	1.544	DS1
31	3.152	DS1C
63	6.312	DS2
44	44.736	DS3
27	274.176	DS4

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.3 Protocol Codes (Cont'd)

5.3.3 Digital Hierarchy Protocol Codes (4DSX) (Cont'd)

HIGH CAPACITY CROSSCONNECT CODE COMBINATIONS

4DS*GO	4DS*GS
4DS*LO	4DS*LS
4DS*NO	4DS*NO
4DS*EA	4DS*EA
4DS*GS	4DS*GO
4DS*LS	4DS*LO

5.4 Rate Regulations

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

5.4.1 Types of Rates and Charges

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

(A) Monthly Rates

Monthly rates are 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.

(B) Daily Rates

Daily rates are flat recurring rates that apply to each twenty-four (24) hour period or/and fraction thereof. Daily rates are available only for Video Service provided for part-time use. For purposes of applying daily rates, the twenty-four (24) hour period is not limited to a calendar day.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.1 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (e.g., installation or a change to an existing service). The nonrecurring charges are set forth in Section 9.2.

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

- Change of customer name.
- Change of customer or customer's end user premises address when the change of address is not a result of 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.

5.4.2 Minimum Periods

Special Access Service is provided for a minimum period of one (1) month. Exceptions to the minimum period exists for part-time Video services and Minimum Term Discount Plan Services. The part-time Video Services may be ordered and paid for on a daily basis. If the daily rate is greater than one-thirtieth of the monthly rate, then a Customer shall be charged no more than the monthly rate for any given month. The minimum service period for Minimum Term Discount Plan Services is the month plan designated in the Customer's contract. Minimum usage requirements are set forth in Section 9.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.3 Moves

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

- The point of termination at the Customer designated premises.
- The Customer designated premises.

The charges for the move and the associated minimum period obligation are dependent on whether the move is to a new location within the same wire center area or to a different wire center area.

(A) Moves to a Different Wire Center Area

When a Customer moves to a different wire center area, the move will be treated as a disconnect and a start of service and Facilities Access Order charges as set forth in Section 9 shall apply. A new minimum period will be established. The Customer will also remain responsible for fulfilling all outstanding minimum period obligations associated with the disconnected service.

(B) Moves to a Different Building Within the Same Wire Center

When a Customer designated premises is moved to a new location in a different building in the same wire center area, the existing minimum period obligations will continue in effect.

(C) Moves Within the Same Building

When a Customer moves to a new location within the same building in the same wire center area, the existing minimum period obligations will continue in effect.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.4 Mileage Measurement

The mileage to be used to determine the monthly rate for the Channel Mileage Facility rate element is calculated on the airline distance between the serving wire centers involved, i.e., the serving wire centers associated with two Customer designated premises, a serving wire center associated with a Customer designated premises and a Telephone Company hub, or two Telephone Company hubs or between the serving wire center associated with a Customer designated premises and a WATS serving office. The serving wire center associated with a Customer designated premises is the serving wire center from which the Customer designated premises would normally obtain dial tone. The V&H coordinates method is used to determine mileage. This method is explained in the EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C No. 4. If the method results in fractional miles, the fractional miles are rounded up to the nearest whole number before determining the rate to be billed. The serving wire center and hub V&H coordinates are also included in that tariff. When hubs are involved, mileage is computed and rates applied separately for each section of the Channel Mileage, i.e., Customer designated premises serving wire center to hub, hub to hub and/or hub to Customer designated premises serving wire center. However, when any service is routed through a hub for purposes other than Customer specified bridging or multiplexing (e.g., the 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.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.5 Shared Use Analog and Digital High Capacity Services

Shared use occurs when Special Access Service and Switched Access Service are provided over the same Wideband Analog or High Capacity facilities through a common interface. The facility is ordered and rated as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, and multiplexer) until such time as the Customer chooses to use a portion of the available capacity for providing Switched Access Service. As each individual channel is activated for Switched Access Service, the Special Access Channel Termination, Channel Mileage, and Optional Features and Functions rates will be reduced accordingly (e.g., 1/12th for a Group level service, 1/24th for a DS1 service, etc.). The rates for Switched Access Service set forth in Section 4 apply to Switched Access Services provided over shared facilities. When placing an order for Shared Use Facilities, the Customer must specify the channels to be used for each service. Nonrecurring and ordering charges apply on the basis of the Wideband Analog or the Digital High Capacity facility ordered. After the service date, facilities Access Order charges apply for a change in the Special Access Service or Switched Access Service configuration provided over shared facilities.

5.4.6 Special Access Surcharge

The rates, rules, and provisions for the Special Access Surcharge are set forth in the National Exchange Carrier Association's Tariff FCC No. 1, Section 7.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.7 Message Station Equipment Charge

5.4.8 Facility Hubs

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

Different locations may be designated as hubs for different facility capacities, e.g., multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. When placing an Access Order the customer will specify the desired hub. Serving wire centers, and hub locations, and the type of multiplexing functions available are identified in EXCHANGE CARRIER ASSOCIATION F.C.C. No. 4.

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 channels

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

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.8 Facility Hubs (Cont'd)

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

Cascading multiplexing occurs when a High Capacity service is de-multiplexed to provide channels with a lesser capacity and one of the lesser capacity channels is further de-multiplexed. For example, a 6.312 Mbps High Capacity service is de-multiplexed to four DS1 channels and then one of the DS1 channels is further de-multiplexed to 24 individual Voice Grade channels.

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, Channel Mileage charges also apply between the hubs.

The Telephone Company will designate hubs for Video Services. Full-time or part-time service may be provided between customer designated premises or between a customer designated premises and a hub and billed accordingly at the rates set forth in 5.5.1 and 5.5.9 following for a Channel Termination, Channel Mileage, and Optional Features and Functions, as applicable. When the service is ordered to a hub, the customer may order a full-time or part-time Video service as needed between that hub and additional customer designated premises. The rate elements required to provide the part-time service (i.e., Channel Termination, Channel Mileage, and Optional Features and Functions, as applicable) will be billed at daily rates for the duration of the service requested.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.9 Discontinuance of Minimum Term Discount Plans

Customers purchasing Minimum Term Discount Plans commit to keep a service for the duration of the chosen plan period. If a customer chooses to discontinue the service prior to the duration of a chosen plan period, that customer is liable for a termination charge. The amount of the termination charge is determined in two ways as set forth in (a) and (b) following. The method which provides the customer with the lowest termination liability will be applied.

(a) Method 1

The termination liability equals a one-time charge of 75% of the payments remaining under the chosen plan.

(b) Method 2

Where there exists a TDP period less than the actual time the service has been in effect, the termination charge will be the difference between the rate for the longest TDP period that could have been satisfied prior to discontinuation of service and the rate for the contracted plan period multiplied by the actual number of months the service has been in effect. For example, if a service under a 60 month TDP is discontinued after 40 months, the highest plan period that could have been satisfied is 36 months. The termination charge is the 36 month TDP rate less the 60 month TDP rate multiplied by 40.

Certain regulations previously found on this page can now be found on page 223.1.

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.4 Rate Regulations (Cont'd)

5.4.9 Discontinuance of Minimum Term Discount Plans (Cont'd)

(b) Method 2 (Cont'd)

Where the actual time the service was in effect is less than the shortest TDP period, the month-to-month rate will be used. For example, if a service under the 36 month TDP is discontinued after 10 months, which is less than the shortest TDP period of 18 months at present, the termination charge will be the month-to-month rate less the 36 month TDP rate multiplied by 10.

5.5 Rates and Charges

5.5.1 Optional Features and Functions

The following features and functions may be added to a service to meet the specific technical demands requested by the Customer. The provision of all features and functions is subject to individual Telephone Company plant and equipment availability.

Certain regulations on this page formerly appeared on page 223.

ACCESS SERVICE

5. Special Access Service

5.5 Rates and Charges (Cont'd)

5.5.1 Optional Features and Functions (Cont'd)

(A) Multiplexing

(1) DS1 to Voice (per arrangement)

Jurisdiction	Monthly Rates
Iowa	$583.36
Bill Code	24001

(2) Channel Service Unit (per termination) - 56 Kpbs

Jurisdiction	Monthly Rates
Iowa	ICB

(B) Bridges (Per Port)

(1) Station Bridge

Jurisdiction	Monthly Rates
Iowa	ICB

(2) Data Bridge

Jurisdiction	Monthly Rates
Iowa	ICB

(3) Voice Bridge

Jurisdiction	Monthly Rates
Iowa	ICB

5.5.2 Reserved For Future Use

5.5.3 Reserved For Future Use

5.5.4 Reserved For Future Use

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.5 Narrowband 1 Service

(A) Channel Termination Rates

- Per Point of Termination

Jurisdiction	Monthly Rates
Iowa	ICB

(B) Channel Mileage Rates

- Per Voice Grade Equivalent Circuit

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	ICB	ICB

5.5.6 Narrowband 2 Service

(A) Channel Termination Rates

- Per Point of Termination

(1) Two-Wire

Jurisdiction	Monthly Rates
Iowa	$18.00
Bill Code	20978

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.6 Narrowband 2 Service (Cont'd)

(A) Channel Termination Rates (Cont'd)

(2) Four-Wire

Jurisdiction	Monthly Rates
Iowa	$36.01
Bill Code	20979

(B) Channel Mileage Rates

- Per Voice Grade Equivalent Circuit

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	$16.17	$ 2.76
Bill Code	20984	21058

5.5.7 Voice Grade Service

(A) Channel Termination Rates

- Per Point of Termination

(1) Two-Wire

Jurisdiction	Monthly Rates
Iowa	$38.00
Bill Code	20975

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.7 Voice Grade Service (Cont'd)

(A) Channel Termination Rates (Cont'd)

(2) Four-Wire

Jurisdiction	Monthly Rates
Iowa	$53.70
Bill Code	20976

(B) Channel Mileage Rates

- Per Voice Grade Equivalent Circuit

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	$16.17	$ 2.76
Bill Code	20984	21058

5.5.8 Program Audio Service

(A) Channel Termination Rates

- Per Point of Termination

(1) 200 - 3500 Hz Channels

Jurisdiction	Monthly Rates
Iowa	ICB

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.8 Program Audio Service (Cont'd)

(A) Channel Termination Rates (Cont'd)

(2) 100 - 5000 Hz Channels

Jurisdiction	Monthly Rates
Iowa	ICB

(3) 50 - 8000 Hz Channels

Jurisdiction	Monthly Rates
Iowa	ICB

(4) 50 - 15000 Hz Channels

Jurisdiction	Monthly Rates
Iowa	ICB

(B) Channel Mileage Rates

- Per Voice Grade Equivalent Circuit

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	ICB	ICB

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.9 Video Service

(A) Channel Termination Rates

- Per Point of Termination

Jurisdiction	Monthly Rates	Daily Rates
Iowa	ICB	ICB

Bill Code

(B) Channel Mileage Rates

- Per Voice Grade Equivalent Circuit

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	ICB	ICB

5.5.10 Wideband Analog Service

(A) Channel Termination Rates

- Per Point of Termination

Jurisdiction	Monthly Rates
Iowa	ICB

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.10 Wideband Analog Service (Cont'd)

(B) Channel Mileage Rates

- Per Mile, Per Voice Grade Equivalent Circuit

Jurisdiction	Monthly Rates
Iowa	ICB

5.5.11 Wideband Digital Service

(A) Channel Termination Rates

- Per Point of Termination

Jurisdiction	Monthly Rates
Iowa	ICB

(B) Channel Mileage Rates

- Per Mile, Per Voice Grade Equivalent Circuit

Jurisdiction	Monthly Rates
Iowa	ICB

5.5.12 Digital Data Access Service

(A) Channel Termination Rates- 56 Kbps

(1) Month - to - Month

- Per Point of Termination

Jurisdiction	Monthly Rates
Iowa	$121.58
Bill Code	20992

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.12 Digital Data Access Service

(A) Channel Termination Rates- 56 Kbps

(2) Minimum Term Discount Plan

- Per Point of Termination

(a) 18 Month Plan	$109.00
(b) 36 Month Plan	$ 99.00
(c) 60 Month Plan	$ 75.75

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.12 Digital Data Access Service (Cont'd)

(B) Channel Mileage Rates - 56 Kbps

(1) Month - to - Month

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	$32.33	$5.54
Bill Code	20993	21062

(2) Minimum Term Discount Plan

	Termination (per month)	Facility (per month per mile)
(a) 18 Month Plan	$30.39	$5.20
(b) 36 Month Plan	$28.29	$4.85
(c) 60 Month Plan	$24.25	$4.16

(C) Channel Termination Rates - 9.6 Kbps

- Per Point of Termination

Jurisdiction	Monthly Rate	Initial Non-Recurring Charge
Iowa	$79.43	$336.02

(D) Channel Mileage Rates - 9.6 Kbps

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	$42.85	$1.07

ACCESS SERVICE

5. Special Access Service (Cont'd)

5.5 Rates and Charges (Cont'd)

5.5.13 High Capacity Service

(A) Channel Termination Rates - 1.544 Mbps

(1) Month-to-month

- Per Point of Termination

Jurisdiction	Monthly Rates
Iowa	$249.77
Bill Code	20990

(2) Minimum Term Discount Plan

- Per Point of Termination

	Monthly Rates
(a) 18 Month Plan	$234.78
(b) 36 Month Plan	$218.55
(c) 60 Month Plan	$187.33

(B) Channel Mileage Rates - 1.544 Mbps

(1) Month-to-month

Jurisdiction	Termination (Per Month)	Facility (Per Month Per Mile)
Iowa	$204.39	$36.61
Bill Code	20991	21060

(2) Minimum Term Discount Plan

	Termination (Per Month)	Facility (Per Month Per Mile)
(a) 18 Month Plan	$192.13	$34.41
(b) 36 Month Plan	$178.84	$32.03
(c) 60 Month Plan	$153.29	$27.46

ACCESS SERVICE

6. Reserved For Future Use

ACCESS SERVICE

7. Specialized Service or Arrangements

7.1 General

Specialized service or arrangements will 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 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.

ACCESS SERVICE

8. Additional Engineering, Additional Labor, and Miscellaneous Charges

In this Section 8, Basic Time refers to the period when services are performed by the Telephone Company on business days during regularly scheduled work hours. Overtime refers to the period when services are performed by the Telephone Company on business days but outside of regularly scheduled work hours. Premium time refers to the period when services are performed by the Telephone Company on non-business days, such as weekends and holidays.

8.1 Additional Engineering

(A) General

Additional Engineering will be provided by the Telephone Company at the request of the Customer only when:

A Customer requests additional technical information after the Telephone Company has already provided the technical information normally included on the Design Layout Report (DLR) as set forth in Sections 4.1.3 and 5.1.6.

Additional engineering time is incurred by the Telephone Company to engineer a Customer's request for a customized service (i.e., not conforming to the predefined technical specifications for services set forth in Section 4 and 5).

The Telephone Company will notify the Customer that additional engineering charges, as set forth in Section 8.1.(B), will apply before any additional engineering is undertaken.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.1 Additional Engineering (Cont'd)

(B) Charges for Additional Engineering

The charges for Additional Engineering are as follows:

Additional Engineering Periods	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
(1) Basic Time, per Engineer		
Jurisdiction		
Iowa	$15.74	$15.74
Special Access Bill Code	25000	25001
Switched Access Bill Code	26051	26052

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.1 Additional Engineering (Cont'd)

(B) Charges for Additional Engineering (Cont'd)

(2) Overtime, per Engineer

Additional Engineering Periods	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Jurisdiction		
Iowa	$23.61	$23.61
Special Access Bill Code	25002	25003
Switched Access Bill Code	26053	26054

8.2 Additional Labor

Additional Labor is that requested by the Customer on a given service as set forth in Sections 8.2.1 through 8.2.6. The Telephone Company will notify the Customer that Additional Labor charges as set forth in Section 8.2.7 will apply before any additional labor is undertaken.

8.2.1 Overtime Installation

Overtime installation is Telephone Company installation services performed on a business day but outside of normal work hours.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.2 Additional Labor (Cont'd)

8.2.2 Overtime Repair

Overtime repair is Telephone Company repair and maintenance services performed on a business day but outside of normal work hours.

8.2.3 Additional Installation Testing

Additional installation testing is that testing performed by the Telephone Company at the time of installation which is in addition to the normal preservice acceptance testing as specified in Section 9.2.7 to ensure the satisfactory performance of Access Service ordered by the Customer. In no event shall a charge be made for Additional Labor that is related solely to testing with other telephone companies.

8.2.4 Standby

Standby includes all time in excess of one-half (1/2) hour during which the Customer requests Telephone Company personnel to standby for any purpose. For Video service, the standby of technician(s) is mandatory.

8.2.5 Testing and Maintenance with Other Telephone Companies

This includes additional testing, maintenance, or repair of facilities which connect to facilities of other telephone companies which is in addition to the normal effort required to test, maintain, or repair facilities provided solely by the Telephone Company.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.2 Additional Labor (Cont'd)

8.2.6 Other Labor

Other labor is additional labor not included in 8.2.1 through 8.2.5, including, but not limited to labor incurred for the installation of inside wire, used to extend the point of termination as set forth in Section 2.1.5, and labor incurred to accommodate a specific Customer request that involves labor which is not covered by any other section of this tariff.

8.2.7 Charges for Additional Labor

Hourly charges are calculated from the time Telephone Company personnel are dispatched to the Customer's designated premises and end when the work is completed. The charges for Additional Labor are as follows:

(A) Installation or Repair, Overtime, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$23.51	$23.51
Special Access Bill Code	25055	25056
Switched Access Bill Code	26059	26060

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.2 Additional Labor (Cont'd)

8.2.7 Charges for Additional Labor (Cont'd)

(B) Additional Installation Testing, Standby, Testing, and Maintenance with Other Telephone Companies, or Other Labor

(1) Basic Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$16.14	$16.14
Special Access Bill Code	28007	28008
Switched Access Bill Code	26064	26065

(2) Overtime, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$24.21	$24.21
Special Access Bill Code	28009	28010
Switched Access Bill Code	26066	26067

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.2 Additional Labor (Cont'd)

8.2.7 Charges for Additional Labor (Cont'd)

(B) (Cont'd)

(3) Premium Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$32.28	$32.28
Special Access Bill Code	28011	28012
Switched Access Bill Code	26068	26069

(C) Service by a Telephone Company employee at a time not consecutive with his scheduled work period is subject to a minimum charge of three hours at the rate specified in Section 8.2.7(B)(2) or 8.2.7(B)(3), as applicable.

8.3 Miscellaneous Charges

8.3.1 Maintenance of Service Charge

When a Customer reports a trouble to the Telephone Company for clearance, the Customer shall be responsible for payment of a Maintenance of Service Charge where the Telephone Company dispatches personnel to a Customer premises and the trouble is in equipment of communications systems provided by other than the Telephone Company, or in detariffed CPE provided by the Telephone Company. No charge will apply where trouble is not found in the Telephone Company facilities if the trouble is actually in these facilities but not discovered at the time. The time period for which the Maintenance of Service Charge is applied will commence when Telephone Company personnel are dispatched to the

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.1 Maintenance of Service Charge (Cont'd)

Customer's designated premises and end when the work is completed. The applicable charges are set forth below:

(A) Basic Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$15.67	$15.67
Special Access Bill Code	25060	25061
Switched Access Bill Code	26070	26071

(B) Overtime, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$23.51	$23.51
Special Access Bill Code	25062	25063
Switched Access Bill Code	26072	26073

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.1 Maintenance of Service Charge (Cont'd)

(C) Premium Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$31.34	$31.34
Special Access Bill Code	25064	25065
Switched Access Bill Code	26074	26075

8.3.2 Restoration Priority Charge

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 FCC Rules and Regulations. A charge applies when a request to provide or change a Restoration Priority is received subsequent to the issuance of a Facilities Access Order to install the service. No charge applies when a Restoration Priority is discontinued.

Restoration Priority
- per Service Arranged

Jurisdiction	Nonrecurring Charge
Iowa	$54.63
Special Access Bill Code	28000
Switched Access Bill Code	26063

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services

The Telephone Company will perform such tests as are reasonably necessary (see Section 9.2.7) to ensure that Access Services ordered by a Customer are functioning properly prior to turning over the Access Services to the Customer. In addition, the Telephone Company, as part of the on-going work to maintain the continued satisfactory performance of the Access Services ordered by the Customer will perform on a routine basis such tests as are reasonably necessary to maintain that level of performance. End-to-end through tests which are technically feasible and tests which show trouble to be located solely within the equipment and facilities of the Telephone Company are within the scope of these tests and are performed by the Telephone Company at no additional charge.

Testing Services covered in this section are only those requested by the Customer which are in addition to the tests described in the preceding paragraph and will be provided at the charges set forth in Section 8.3.3(E). Testing Services are subject to the availability of test equipment and personnel at the Telephone Company test location. Testing Services are normally provided by the Telephone Company personnel at Telephone Company locations. However, provision is made in Section 8.3.3(C) for a Customer to request Telephone Company personnel to perform Testing Services at the Customer's premises.

Testing Services covered in this section which are to be conducted in coordination with the Customer will be subject to additional stand-by labor charges as set forth in Section 8.2.7(B).

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(A) Switched Access Service

In connection with Switched Access Service the following Testing Services are available on an optional basis.

(1) Automatic Distribution of Telephone Company Test Results

On a routine basis, the Telephone Company performs periodic tests, according to a schedule determined by the Telephone Company, of the Access Services ordered by the Customer to maintain continued satisfactory performance. Based on the availability of compatible test equipment being present at the Customer location, such routine tests may be of the following types:

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104
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At the request of the Customer the documented results of these tests will be made available for the charges set forth in Section 8.3.3(E).

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(2) Testing in Accordance with a Customer Prescribed Schedule

The Telephone Company will normally determine the schedule of tests to be performed and based on the availability of equipment, the types of testing to be performed on a routine basis. Where capacity is available, the Testing Services described above can be conducted in accordance with a Customer prescribed schedule, which is agreed to by the Telephone Company. Orders for this service must be submitted to the Telephone Company 60 days prior to the start of the Customer prescribed schedule.

Where automated testing capabilities are utilized to conduct routine tests, the same tests conducted on a more frequent basis in accordance with a Customer prescribed schedule will be subject to the rates and charges as set forth in Section 8.3.3(E)(1)(b). Where routine testing is performed on a manual basis, the same tests conducted on a more frequent basis in accordance with a Customer prescribed schedule, will be subject to rates and charges as set forth in Section 8.3.3(E)(3).

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(3) Office Test Line Access

This testing service provides access to the Telephone test line terminations, where available and on a schedule agreed to by the Telephone Company, for the purpose of enabling the Customer to perform testing of inward, outward, and two-way transmission paths to the Telephone Company first switching point.

(B) Special Access Service

Subject to the availability of test equipment and personnel at the Telephone Company test location, the Telephone Company will provide assistance in performing specific tests requested by the Customer.

(C) Specialized Manual Testing (Switched or Special)

Manual testing consists of providing one or more Telephone Company technicians to perform specialized testing functions as directed by the Customer. Such testing functions may include the performance of testing at the Customer designated premises.

(D) Obligation of the Customer

When the Customer subscribes to Testing Service, the Customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(E) Rates and Charges

(1) Switched Access Testing Service

		Monthly Rate	Nonrecurring Charges
(a)	Provision of Test Results	ICB	ICB
(b)	Automated Testing per Customer Prescribed Scheduled, per Request, per Occurrence*, per Transmission Path, per Trunk Group	ICB	ICB

(2) Special Access Testing Service

(a) Basic Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$15.67	$15.67
Special Access Bill Code	28001	28002
Switched Access Bill Code	NA	NA

* An occurrence is completed when all available trunks included in the request are accessed for test purposes.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(E) Rates and Charges (Cont'd)

(2) Special Access Testing Service (Cont'd)

(b) Overtime, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$23.51	$23.51
Special Access Bill Code	28003	28004
Switched Access Bill Code	NA	NA

(c) Premium Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$31.34	$31.34
Special Access Bill Code	28005	28006
Switched Access Bill Code	NA	NA

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(E) Rates and Charges (Cont'd)

(3) Specialized Manual Testing

(a) Basic Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$15.67	$15.67
Special Access Bill Code	28015	28016
Switched Access Bill Code	26080	26081

(b) Overtime Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$23.51	$23.51
Special Access Bill Code	28017	28018
Switched Access Bill Code	26082	26083

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.3 Testing Services (Cont'd)

(E) Rates and Charges (Cont'd)

(3) Specialized Manual Testing (Cont'd)

(c) Premium Time, per Technician

Jurisdiction	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction Thereof
Iowa	$31.34	$31.34
Special Access Bill Code	28019	28020
Switched Access Bill Code	26084	26085

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures

(A) General

(1) Presubscription is an arrangement whereby an End User may select and designate to the Telephone Company an IC to access, without a 950-10XX or 10XXX access code, for interstate calls. This IC is referred to as the End User's predesignated IC. Presubscription is available only to End User's predesignated IC. Presubscription is available only to End Users served by end offices that have been converted to provide Feature Group D Switched Access Service.

(2) The presubscription procedures set forth in this section have been tariffed to comply with the FCC's Memorandum Opinion and Order, FCC Docket No. 83-1145, Phase I, FCC 85-293, released June 12, 1985 ("Order"). The provision of the Allocation Plan set forth in Appendix B of that Order are hereby incorporated by reference. The Order with all Appendices is available for inspection in the Public Reference Room of the Tariff Division at the main building of the FCC (1919 M. St., N.W., Washington, D.C.) and may also be obtained from the FCC's commercial contractor.

(B) End User Notification and Presubscription Balloting Process

(1) An End User may select an IC as its predesignated IC in three ways: (a) by contacting the desired IC directly or (b) through a balloting procedure conducted by the Telephone Company, or (c) by contacting the Telephone Company business office. Approximately ninety (90) days prior to the introduction of Feature Group D in a serving end office, the Telephone Company will notify End Users of the availability of Feature Group D in their area. This notice will contain a description of the balloting process, a statement explaining that an End User may contact an IC directly, and a list of the names of all ICs participating in the balloting process (hereinafter referred to as "initial ballot").

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(B) End User Notification and Presubscription Balloting Process (Cont'd)

(1) (Cont'd)

Using the ballot, an End User may either select a predesignated IC for all of its lines, or it may choose a different IC for each of its lines. Only one IC may be selected for each particular line. In the case of mulit-line hunt group, an End User may select only one IC through the ballot process. End User desiring to split multi-line group terminals among several ICs may do so only by contacting the Telephone Company directly. Initial ballots should be returned to the Telephone Company in the envelopes provided within thirty (30) days of receipt of the ballot by End Users.

(2) Approximately forty (40) days before an end office conversion the Telephone Company will send a second ballot to those End Users who have not yet made an IC selection either through the presubscription ballot, directly to an IC or through the Telephone Company business office. The End User will be notified that if the second ballot is not returned to the Telephone Company by the date indicated the End User will be assigned to the IC indicated on the second ballot. An End User wishing to select an IC other than the one indicated may do so by indicating the preferred IC on the second ballot and returning it in the enclosed envelope by the ballot deadline.

(C) Allocation Process

The Telephone Company will tabulate all initial ballots, end user selections made through the Telephone Company business office (i.e., service orders) and IC customer lists (see Section 8.3.4(D)) received within the thirty (30) day period set forth in Section 8.3.4(B)(1) and determine the percentage of End Users that selected each IC. End Users who do not return an initial ballot will be assigned, at random, to ICs participating in the allocation process in proportion to the results of the first ballot response.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(C) Allocation Process (Cont'd)

For example: Assume Carriers A, B, and C appear on the initial ballot. After the ballots and IC customer lists are returned, it is determined that Carrier A received 25 percent of all End User line responses. Carrier B received 45 percent and Carrier C received the remaining 30 percent. The Telephone Company will then assign 25 percent of non-responding End Users to Carrier A, 45 percent to Carrier B, and 30 percent to Carrier C.

(D) IC Customer Lists

The Telephone Company will accept from ICs lists of End Users that have made individual arrangements with a specific IC to select that IC as the End User's predesignated IC. All such lists must be accompanied by a document affirming that the IC has on file or has instituted steps designed to obtain signed letters of agency or written confirmations of choice from each End User on the list. To be included in the end office conversion to Feature Group D, all lists must be provided to the Telephone Company no later than the time specified in the schedule provided to the IC by the Telephone Company. Lists that are not provided by the IC within the time frames established by the schedule will not be accepted. Lists must be submitted in the format agreed upon between the Telephone Company and the IC. An IC is responsible for all billing disputes arising from implementation of its customer list.

(E) Customer Choice Discrepancy

In instances where End Users indicate more than one IC per line on the ballot or return an illegible ballot, the Telephone Company will contact the End User for clarification. If a discrepancy occurs between an End User ballot and an IC customer list the End User ballot controls. If a discrepancy occurs, the Telephone Company will notify, within ten (10) days, all affected ICs through a conflict report.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(E) Customer Choice Discrepancy (Cont'd)

If upon receipt of a conflict report, and the discrepancy involves two or more IC customer lists, the IC certifying to the Telephone Company that it has on file a signed letter of agency with a date subsequent to the date on the letter of agency held by another IC, the IC certifying the latest authorization date becomes the designated IC and no presubscription charge will be assessed to either the IC or End User. The Telephone Company will provide a zero conflict report to ICs not involved in any End User conflicts. An IC selection made by an End User through the Telephone Company business office (service order) shall be given the same priority as an IC selection made by ballot. If a discrepancy occurs between End User IC selections made by service order and by ballot, the one dated last controls.

If a discrepancy cannot be resolved under the provisions of this Section 8.3.4(E), the End User in question will be allocated along with non-respondents to the initial ballot. In this instance, the letter accompanying the second ballot for that particular End User will indicate that there is a conflict and that a selection must be made by the specified deadline unless the assigned IC indicated on the second ballot is the End User's choice.

(F) Retroactive Balloting Procedure

The Telephone Company will provide another opportunity for nonpresubcribed End Users to predesignate an IC where end offices were converted to Feature Group D prior to May 31, 1985. The Telephone Company will follow the presubscription procedures set forth in this Section 8.3.4 applicable to new end office conversion, provided that deadlines set by reference to the date of an end office conversion shall instead be set by reference to the date on which retroactive IC selections are to be cutover.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(G) Application of the Presubscription Charge

(1) The presubscription charge set forth in Section 8.3.4(J) will not be assessed to End Users who make initial IC selections, either by returning the ballot to the Telephone Company, by contacting the IC directly, or by contacting the Telephone Company business office during the ninety (90) day period prior to the Feature Group D conversion date or during the six (6) months following the conversion date.

(2) Any End User who is allocated to or who has selected an IC pursuant to the procedures set forth in Section 8.3.4 may change to another IC. No presubscription charge will be incurred by the End User for this change or subsequent IC changes prior to the expiration of six (6) months after the end office conversion. Changes made after that time are governed by Section 8.3.4(G)(4).

(3) No presubscription charge will be assessed by the End User that predesignates an IC as part of the retroactive balloting process set forth in Section 8.3.4(F).

(4) Except as provided in Sections 8.3.4(E) and (H), presubscription charges as set forth in Section 8.3.4(J) shall be assessed to End Users for any change in IC presubscription selection made more than six (6) months after the end office conversion date.

(5) The Telephone Company will make changes in the End User's primary IC assignment pursuant to an IC provided list of customers accepted by the Telephone Company under a Presubscription Service Request Agreement. Should customer choice discrepancies occur, and the IC is unable to produce proper agency authorization, the IC, rather than the End User, will be billed for any post-conversion presubscription charges that may apply for making the change and/or restoring the End User's original IC assignment.

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(G) Application of the Presubscription Charge (Cont'd)

(6) If the Telephone Company is responsible for presubscribing an End User to an IC other than the IC selected by that End User, the Telephone Company will presubscribe the End User to their desired IC and no presubscription charge will be assessed to the IC or the End User.

(H) New End Users

New End Users, who are served by end offices equipped with Feature Group D, will be provided with a ballot and asked to presubscribe to an IC at the time they place an order with the Telephone Company for Telephone Exchange Service. There will be no charge for this initial selection. They may designate an IC as predesignated IC and dial 10XXX or other access codes (i.e., 950-10XX or 950-00XX) to reach other ICs or they will be required to dial 10XXX or other access codes (i.e., 950-10XX or 950-00XX) for all calls to all ICs. New End Users who select an IC verbally will receive a notice from the Telephone Company confirming the End User's selection. New End Users returning confirmation notices within thirty (30) days of receipt and identifying an IC different from that given to the Telephone Company at the time they placed an order for Telephone Exchange Service will have such selections processed without a presubscription charge.

New End Users will have thirty (30) days from the installation date for Telephone Exchange Service to predesignate an IC. After the expiration of the thirty (30) day period or the initial selection of an IC, whichever comes first, a nonrecurring charge as set forth in Section 8.3.4(J) applies to any change in selection.

(I) Cancellation of IC Participation

If an IC elects to discontinue all of its Feature Group D service in the converting end office prior to the conversion date or within two (2) years after the introduction of Feature Group D in the converting end office, the IC is obligated to do the following:

ACCESS SERVICE

8. Additional Engineering, Additional Labor and Miscellaneous Charges (Cont'd)

8.3 Miscellaneous Charges (Cont'd)

8.3.4 Presubscription Procedures (Cont'd)

(I) Cancellation of IC Participation (Cont'd)

(1) Notify the Telephone Company of the cancellation of the IC's Feature Group D service, and

(2) Contact, in writing, all End Users that have selected or been allocated to the IC, inform these End Users of the cancellation, request the End Users to select a new predesignated IC, and state that the cancelling IC will pay for the presubscription charge.

The Telephone Company will bill the cancelling IC the service order charge as set forth in Section 8.3.4(J) for each End User currently predesignated to the IC. The Charge will apply to the cancelling IC only where the End User changes it predesignated IC as a result of the cancelling IC's discontinuation of Feature Group D service.

The charge will apply to the cancelling IC where the IC transfers or assigns its Feature Group D services and the associated 10XXX code to another IC in such manner that the Telephone Company does not change End User records or End User presubscribed IC designation, or if another IC elects to pay the service order charge on behalf of the cancelling IC.

(J) Presubscription Charge

The nonrecurring charge for Presubscription is assessed to each End User line or trunk as follows:

Jurisdiction	Presubscription Charge
Iowa	$5.00

NOTE: This charge is billed to the End User which is the subscriber to the Telephone Exchange Service, except when billed to an IC as set forth in Section 8.3.4(G)(5) and Section 8.3.4(I). However, an IC may, at its option, elect to pay the charge for any End User at anytime.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services

9.1 General

This section sets forth the regulations and order related charges of Facilities 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.

9.1.1 Ordering Conditions

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

Orders for Feature Groups A and B Switched Access Services by Customers must be in quantities of desired lines for Feature Group A or trunks for Feature Group B to particular end offices or access tandems.

Orders for Feature Groups C and D Switched Access Services may be ordered on the basis of busy hour minutes of capacity (BHMC) or at the Customer's option, may order Feature Group C and D by specifying the number of trunks desired between their premises and particular end offices or access tandems. When ordering in trunk quantities rather than BHMC, the Customer must also provide the Telephone Company an estimate of the amount of traffic by type 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.

Additionally, when the 900 Access Service optional feature is ordered, the initial order shall specify the NXX code(s) to be translated within the entire LATA or Market Service Area. The initial and subsequent orders to add, change, or delete 900 Access codes shall be placed separately or in combination with orders to change Feature Group C or D Switched Access BHMC or trunks. Customer assigned NXX codes which have not been ordered will be blocked.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services

9.1 General (Cont'd)

9.1.1 Ordering Conditions (Cont'd)

For initiation, additions, changes, or deletions to the 900 Access code(s), the Customer must place an order with the Telephone Company who provides the Translation. The Customer must also provide a copy of the order to the Telephone Companies subtending the 900 Access Translation office.

For 800 Data Base (800 DB) Service, the customer shall order the service in accordance with the preceding requirements as determined by the manner in which the service is to be provisioned as set forth elsewhere in 9.1.1, except that customers may request direct connection to those offices designated by the Telephone Company as Service Switching Points (SSPs). 800 DB is available only as a LATA-wide service and must be ordered to all end offices in a LATA. Service will be provisioned, at a minimum, to all access tandems and operator switches equipped as SSPs in a LATA. 800 DB codes and number assignments shall be in accordance with the Guidelines for 800 Data Base.

The Telephone Company will make available upon Customer request a standard service interval table for Switched and Special Access Services. These tables and any associated relevant information will be made available to the Customer within a reasonable time of request, whether the Customer's service is subject to standard or negotiated intervals. Special Access Service ordered for use with Switched Access Service may be ordered separately by a Customer other than the Customer which orders the FGA, FGB, FGC, or FGD. For the Special Access Service the Customer shall specify the customer designated premises at which the Special Access Service terminates, the type of line (i.e., two-wire or four-wire), the type of calling (i.e., originating or terminating), and the type of Supervisory Signaling. When the necessary screening, switching, and/or recording functions are not provided at the customer serving wire center, a Special Access Line Extender, subject to charges as set forth in Section 5.5.7(B), must be ordered between that wire center and the nearest wire center premises where the screening, switching, and/or recording functions exist.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.1 General (Cont'd)

9.1.1 Ordering Conditions (Cont'd)

The Customer shall be required to supply all information necessary to provide service. This information includes Customer name, address, telephone number, type of business entity, date of order, establishment of credit information, billing requirements information, contact person, date service to begin, specific location, quantity, type and description of service, election as to each service option under tariff, and special routing information.

When ordering Switched Access Service, the customer must specify whether the service is to be directly routed to an end office switch through an access tandem. When service is ordered directly to an end office the customer must specify the type and quantity of Direct Trunked Transport Facility (e.g., Voice Grade or High Capacity DS1 or DS3).

The Customer must also specify the type of Entrance Facility to be used for Switched Access (e.g., Voice Grade or High Capacity). For High Capacity Entrance Facility, the customer must specify the facility assignment and the channel assignment for each trunk.

Direct Trunked Transport is available at all end offices except those identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 as not having the capability to provide Direct Trunked Transport. Direct Trunked Transport is not available: (1) from end offices that provide equal access through a centralized equal access arrangement, (2) from end offices that lack recording or measurement capability, and (3) for originating 800 calls from non-Service Switching Point (SSP) equipped end offices that can not accommodate direct trunking of originating 800 calls.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.1 General (Cont'd)

9.1.2 Provision of Other Services

(A) Testing Service, Additional Labor, Restoration Priority, and Special Routing may be ordered with a Facilities Access Order as additional features for new facilities or as changes to existing services. 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) Customers may add items listed in Section 9.1.2(A) to a pending order at any time subject to the conditions of Section 9.2.2. However, a change in the service date, to be negotiated between the Customer and the Telephone Company, may be necessary to accommodate the request. When items listed in Section 9.1.2(A) are added to a pending order, charges for order modification as set forth in Section 9.2.2 will apply.

(C) Additional Engineering is not an ordering option, but will be applied to an Access Order when the Telephone Company determines that Additional Engineering is necessary to accommodate a Customer request. Additional Engineering will only be required as set forth in 8.1 preceding and for Expedited Service orders. 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 percent.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.1 General (Cont'd)

9.1.2 Provision of Other Services (Cont'd)

(C) The regulations, rates and charges for Additional Engineering are as set forth in Section 8.1 preceding and are in addition to the regulations, rates and charges specified in this section.

9.1.3 Special Construction

The circumstances under which Special Construction is provided are described in Section 10. The regulations and charges for Special Construction are also set forth in Section 10 and are in addition to the regulations and charges specified in this section.

9.2 Facilities Access Order

A Facilities Access Order is used by the Telephone Company to provide Access Service as follows:

The Customer must place a Facilities Access Order for the provision of facilities and the discontinuance of existing services. Facilities for Switched Access Service include Local Transport and End Office functions as described in Section 4. Facilities for Special Access Service include Channel Termination, Channel Mileage, and Optional Features and Functions as described in Section 5. In addition, other services may be requested by the use of a Facilities Access Order.

For Special Access Service, separate orders must be placed for each Customer designated premises.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.1 Facilities Access Order Charge

A nonrecurring charge will apply for receiving, recording, and processing information necessary to execute a Customer's Facilities Access Order for Switched or Special Access Services.

One charge will apply for each order received. An order will include the request for all work to be performed or provided in connection with the Customer's facilities. If the Facilities Order is modified, charges as set forth in Section 9.2.2 apply.

At the time the Customer places a Facilities Access Order with the Telephone Company, the Customer will be informed that if the Facilities Access Order is cancelled prior to installation of access facilities, where installation of access facilities has commenced, a cancellation as set forth in Section 9.2.6(D) and 9.2.6(E) will apply.

Jurisdiction	Facilities Access Order Charge, per Order
Iowa	$36.00
Special Access Bill Code	26000
Switched Access Bill Code	26300

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.2 Facilities Access Order Modifications

The Customer may request a modification of its Facilities Access Order 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 orders 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 Facilities Access Order modification, the Telephone Company will schedule a new service date and will inform the Customer of which of the charges, set forth in this Section 9.2.2 will be imposed. All charges for Facilities Access Order modifications will apply on a per occurrence basis.

Any increase in the number of Special Access Service channels or Switched Access Service capacity or circuit quantities ordered will be treated as a new Facilities Access Order, as would a change in Feature Group type.

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

(A) Service Date Change Charge

Facilities Access Order service dates may be changed subject to the payment of a Service Date Change Charge. A Service Date Change Charge will apply for each service date changed. If the service date is changed to an earlier date, Additional Labor charges, as set forth in Section 8, may also be required in addition to the Service Date Change Charge. The Telephone Company will not accept orders for service dates which exceed the applicable service date by more than six (6) months.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.2 Facilities Access Order Modifications (Cont'd)

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

The Customer may request a change of service date on a pending Access Order prior to the service date. A change of service date is a change of the scheduled service date by the Customer to either an earlier date or a later date which does not exceed thirty (30) calendar days from the original service date.

If the Telephone Company determines that the Customer's request can be accommodated without delaying the service dates for orders of other Customers, the service date will be changed and the Service Date Change Charge applied to the order.

If the service date is changed to an earlier date, and the Telephone Company determines that additional labor, additional engineering, additional testing, or miscellaneous charges are necessary to meet the earlier service date requested by the Customer, such charges will apply subject to the terms and conditions in Section 8 in addition to the Service Date Change Charge. The Telephone Company will provide Customers with an estimate of charges to expedite an Access Order and the Telephone Company's actual charges therefore shall not exceed those estimated by more than 10 percent.

If the requested service date exceeds thirty (30) calendar days following the original service date, and the Telephone Company determines that the Customer's request can be accommodated, the Telephone Company will cancel the original order and apply the Cancellation Charges as set forth in 9.2.6 following. A new Access Order with the new service date will be issued. The Service Date Change Charge will not apply.

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

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.2 Facilities Access Order Modifications (Cont'd)

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

Jurisdiction	Service Date Change Charge, per Order
Iowa	$21.00
Special Access Bill Code	26001
Switched Access Bill Code	26010

(B) Design Change Charges

The Customer may request a design change to the service ordered. A design change is any change to a Facilities Access Order which requires engineering review. Engineering review is review by Telephone Company personnel of the service ordered and the requested change to determine what alterations in the design of the service are necessary to accommodate the change requested by the Customer. A design change may include the cancellation or addition of Optional Features and Functions and type terminations. It may not include a change of Access Connection Interface Group or facility type, Customer premises, end office switch, protocol, or Feature Group type. Changes of this nature will require the issuance of a new order and the cancellation of the original order with appropriate charges applied.

The Telephone Company will review the requested change and notify the Customer whether the change can be accommodated. If the Customer authorizes the Telephone Company to proceed with the design change, a Design Change Charge will apply. If, as a result of

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.2 Facilities Access Order Modifications (Cont'd)

(B) Design Change Charges (Cont'd)

the change, the original service date cannot be met without the Telephone Company incurring additional labor, and the Customer provides authorization to the Telephone Company to proceed, then charges as set forth in Section 8 will apply. If the Customer is unwilling to pay such costs and the service date must be changed as a result of the design change, a Service Date Change Charge as set forth in Section 9.2.2(A) would apply.

The Design Change Charge is:

Jurisdiction	Design Change Charge, per Order
Iowa	$21.00
Special Access Bill Code	25999
Switched Access Bill Code	26011

9.2.3 Selection of Facilities for Facilities Access Orders

When there are analog or digital high capacity facilities on 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 a Facilities Access Order. The Telephone Company will make a reasonable effort to accommodate the Customer request. Facilities needed to satisfy Facilities Access Order requirements will be taken from available inventory based on forecasted demand on a first-come, first-served basis. Such inventory does not include facilities specifically to satisfy the requirements of pending Facilities Access Orders.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.4 Minimum Period

(A) Except as set forth in Section 9.2.4(B) the minimum period for which Access Service is provided and for which charges are applicable, is one month. For the application of minimum period charges for Feature Groups C and D, the last identical capacity placed in service is considered the first one discontinued.

(B) The minimum period for Video Special Access Services offered at a daily rate is one day. 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.).

9.2.5 Minimum Period Charges

When Access Service is discontinued prior to the expiration of the minimum period, charges are applicable for the remainder of the minimum period. Except as otherwise provided in this tariff, a disconnect constitutes facilities being returned to inventory.

The Minimum Period Charge will be determined as follows:

(A) For Switched Access Service, the charge is equal to the applicable minimum monthly charge for the service as set forth in Section 4.6.

(B) For Special Access Service, the charge is the applicable monthly rate for the service as set forth in Section 5.

(C) The Minimum Period Charge for Video Services offered at a daily rate will be the applicable daily rate for the service as set forth in Section 5.

(D) The Minimum Period Charge for Minimum Term Discount Plan Services is the month plan designated in the Customer's contract, as set forth in Section 5.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.6 Cancellation of a Facilities Order

(A) The Customer may cancel a Facilities Access Order in whole or in part on any date prior to the service date. The cancellation date is the date the Telephone Company receives written notice from the Customer that the order or portion thereof is to be cancelled.

If a Customer or a Customer's End User is unable to accept Access Service within thirty (30) calendar days after the original service date, the Customer has the choice of the following options:

- Access Order shall be cancelled and charges as set forth below 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 Order.

(B) Installation of Switched or Special Access Service facilities is considered to have started once the Firm Order Confirmation date has been provided to the customer.

(C) Where the Customer cancels a Facilities Access Order or portion thereof prior to the start of the installation of the access facilities cancelled, no charges shall apply.

(D) Where installation of access facilities which the Customer desires to cancel have started prior to the cancellation, the lesser of the following charges shall apply.

(1) A cancellation charge as determined in accordance with Section 9.2.6(E).

(2) The charge for the minimum period of Switched or Special Access Service ordered by the Customer.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.6 Cancellation of a Facilities Order (Cont'd)

(E) The Cancellation Charge will apply on a per order basis and is calculated by multiplying the total of the nonrecurring charges associated with all items on the Access Order by the number of calendar days elapsed since the order date, and dividing that figure by the number of days in the service interval (i.e., the number of days between the order date and the service date). The resulting amount is the Cancellation Charge. When determining the charge for a partial cancellation, only those nonrecurring charges associated with the portion of the order being canceled are used in computing the charge.

9.2.7 Facilities Test and Line Up

(A) For Switched or Special Access Facilities, test and line up will be made by the Telephone Company using the Customer facilities which are installed at the Customer designated premises to terminate the capacity or services provided. The Customer shall provide personnel and equipment necessary to conduct the testing and line up and shall have its facilities available to complete the testing and line up during the period mutually agreed upon for testing. If Customer personnel, equipment, or facilities are not provided, and the service date is missed as a result, no Delayed Activation Credit, as set forth in Section 9.2.8, applies.

(B) Testing and line up as set forth in Section 9.2.7(A) may begin up to thirty (30) days prior to the scheduled service date. The Telephone Company will notify the Customer of the scheduled start date at least ten working days prior to such date. If this date is mutually agreeable, the Telephone Company will begin testing on the scheduled date. If this date is not agreeable to the Customer and a later date is agreed upon, no Delayed Activation Credit will apply if the facilities are not available on the service date.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.8 Delayed Activation Credit

If Telephone Company misses a service date by more than thirty (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 Order without incurring cancellation charges.

9.2.9 Discontinuation of Service

Customers must give the Telephone Company written notice twenty-four (24) hours before the date on which service is to be discontinued.

9.2.10 Access Orders For Services Provided By More Than OneTelephone Company

Access Services provided by more than one Telephone Company are services where one end of the Local Transport or Channel Mileage element is in the operating territory of one Telephone Company and the other end of the element is in the operating territory of a different Telephone Company or where the Interim 800 Translation service and the end office are not provided by the same Telephone Company.

The ordering procedure for this service is dependent upon the billing arrangement, as set forth in Section 2.4.4 preceding, to be used by the Telephone Companies involved in providing Access Service. The Telephone Company will notify the Customer which of the ordering procedures will apply.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.10 Access Orders For Services Provided By More Than One Telephone Company (Cont'd)

(A) Non Meeting Point Billing

(1) Single Company Billing Ordering

The Telephone Company receiving the order from the Customer will arrange to provide the service and bill the Customer as set forth in Section 2.4.4(A)(1). The Customer will place the order with the Telephone Company as follows:

For Feature Groups A and B Switched Access Services the Customer will place the order with the Telephone Company in whose territory the first point of switching is located. The first point of switching is:

- FGA - dial tone office
- FGB - access tandem or end office

When the first point of switching is not in the same Telephone Company's territory as the Interexchange Carrier premises, the Customer must provide a copy of the order to the Telephone Company in whose territory the Interexchange Carrier premises is located.

(2) Primary Exchange Carrier/Secondary Exchange Carrier Billing Ordering

When FGA is ordered in a multi-Telephone Company provided Extended Area Service area or FGB is ordered in a multi-Telephone Company access tandem arrangement, the Customer must provide a copy of the order to all Secondary Exchange Carriers. Each Exchange Carrier will bill as set forth in Section 2.4.4(A) preceding.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.10 Access Orders For Services Provided By More Than One Telephone Company (Cont'd)

(B) Meet Point Billing Ordering

Each Telephone Company will provide its portion of the Access Service within its operating territory to an Interconnection point(s) (IP) with the other Telephone Company(s). The Billing Percentages (BP) associated with the Interconnection point(s) will be determined by the Telephone Companies involved in providing the Access service and listed in EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. No. 4. The Telephone Company will bill the Customer for the service in accordance with the billing arrangements as set forth in Section 2.4.4(B) preceding. All other appropriate charges in each Telephone Company's tariff are applicable.

(1) For Feature Groups A and B Switched Access Services, the Customer must place an order with the Telephone Company in whose territory the first point of switching is located, (i.e.; FGA-dial tone office, FGB-access tandem, or end office).

(2) For Feature Groups C and D Switched Access Services, the Customer must place an order with the Telephone Company in whose territory the end office is located. Customers may, at their option, order FGD to the access tandem. When ordered to the access tandem, and the access tandem and the end office are not in the same Telephone Company operating territory, the Customer must also provide a copy of the order to each additional Telephone Company subtending access tandem.

(3) Customers ordering Special Access Service to be interconnected with Switched Access Services at Telephone Company designated WATS Serving Offices must place an order with each Telephone Company in whose territory the end office and the WATS Serving Office are located, if they are not collated.

ACCESS SERVICE

9. Ordering Options for Switched and Special Access Services (Cont'd)

9.2 Facilities Access Order (Cont'd)

9.2.10 Access Orders For Services Provided By More Than One Telephone Company (Cont'd)

(B) Meet Point Billing Ordering (Cont'd)

(4) Except for Special Access Service as set forth in (3) above or as set forth in (5) below, the Customer may place the order for a Special Access Service with either Exchange Telephone Company.

(5) For Special Access Service involving a hub(s) the Customer must place the order with the Telephone Company in whose territory the hub(s) is located.

(6) For initiation, additions, changes, or deletions to the Interim 800 NXX code(s), the Customer must place an order with the Telephone Company who provides the Interim 800 Translation. The Customer must also provide a copy of the order to the Telephone Companies subtending the Interim 800 Translation office.

For service(s) ordered as set forth preceding the Customer must also supply a copy of the order to the Telephone Company in whose operating territory a customer designated premises is located and any other Telephone Company(s) involved in providing the service.

ACCESS SERVICE

10. Special Construction

10.1 General

This section addresses Special Construction of Telephone Company facilities which are used to provide services offered under this tariff except for those offered in Section 7.

The Telephone Company will notify the Customer in writing when Special Construction is required. The notice will contain an explanation of the reasons requiring Special Construction and an estimate of the costs of such construction. When Special Construction is required, a charge will be made for the cost of the Special Construction. In those cases when a Maximum Termination Liability Charge for the Special Construction applies, the terms and conditions in Section 10.3 will apply.

When Special Construction of facilities is required, the provisions of this section apply in addition to regulations, rates, and charges set forth in other sections of this tariff.

10.2 Conditions Requiring Special Construction

Special construction is required when suitable facilities are not available to meet a Customer's order for service and one or more of the following conditions exist:

- The Telephone Company has no other requirement for the facilities constructed at the Customer's request;
- The Customer requests that service be furnished using a type of facility, or via a route, other than that which the Telephone Company would otherwise utilize in furnishing the requested service;
- The Customer requests the construction of more facilities than is required to satisfy its order for service;
- The Customer requests construction be expedited resulting in added cost to the Telephone Company;
- The Customer requests that temporary facilities be constructed until permanent facilities are available.

ACCESS SERVICE

10. Special Construction (Cont'd)

10.3 Maximum Termination Liability and Termination Charge

A Maximum Termination Liability is equal to the nonrecoverable costs associated with specially constructed facilities and is the maximum amount which could be applied as a Termination Charge if all specially constructed facilities were discontinued before the Maximum Termination Liability expires.

The liability period is equal to the average life of the account associated with the specially constructed facilities. The liability period is generally expressed in terms of an effective and expiration date.

The Maximum Termination Liability is filed with the initial tariff filing in decreasing amounts at ten-year intervals over the average account life of the facilities. In the event that the average account life of the facilities is not an even multiple of ten, the last increment will reflect the appropriate number of years remaining.

Example Illustrating a 27-Year Average Account Life

Maximum Termination Liability	Effective Date	Expiration Date
$10,000	06/01/84	06/01/94
7,000	06/01/94	06/01/04
3,000	06/01/04	06/01/11

Prior to the expiration of each liability period, the customer has the option to (A) terminate the special construction case and pay the appropriate charges, or (B) extend the use of the specially constructed facilities for the new liability period.

The Telephone Company will notify the customer six months in advance of the expiration date of each ten-year liability period. The Customer must provide the Telephone Company with written notification at least 30 days prior to the expiration of the liability period if termination is elected. Failure to do so will result in an automatic extension of the special construction case to the next liability period at the filed Maximum Termination Liability amount.

ACCESS SERVICE

10. Special Construction (Cont'd)

10.3 Maximum Termination Liability and Termination Charge (Cont'd)

A Termination Charge may apply when all services using specially constructed facilities which have a tariffed Maximum Termination Liability are discontinued prior to the expiration of the liability period. The charge reflects the unamortized portion of the nonrecoverable costs at the time of termination, adjusted for net salvage and possible reuse. Administrative costs associated with the specific case of special construction and any cost for restoring a location to its original condition are also included. A Termination Charge may never exceed the filed Maximum Termination Liability.

A partial termination of specially constructed facilities will be provided, at the election of the Customer. The amount of the Termination Charge associated with such partial termination is determined by multiplying the termination charge which would result if all services using the specially constructed facilities were discontinued, at the time partial termination is elected, by the percentage of specially constructed facilities to be partially terminated. A tariff filing will be made following a partial termination to list remaining Maximum Termination Liability amounts and the number of specially constructed facilities the Customer will remain liable for.

Example

A customer with a filed Maximum Termination Liability of $100,000 for 3,600 specially constructed facilities requests a partial termination of 900 facilities. The Termination Charge for all facilities, at the time of election, is $60,000. The partial termination charge, in this example, is $60,000 x 900/3600, or $15,000.

Annual Underutilization Liability and Underutilization Charge

Prior to the start of special construction, the Telephone Company and the Customer will agree on (1) the quantity of facilities to be provided, and (2) the length of the planning period during which the Customer expects to place the facilities in service. The planning period is hereinafter referred to as the Initial Liability Period (ILP). The ILP is listed in the tariff with an effective and expiration date.

ACCESS SERVICE

10. Special Construction (Cont'd)

10.3 Maximum Termination Liability and Termination Charge (Cont'd)

Underutilization occurs only if, at the expiration date of the ILP and annually thereafter, less than 70 percent of the specially constructed facilities are in service at filed tariff service rates.

An annual underutilization liability amount is filed on a per unit basis (e.g., per cable pair) for each case of special construction. This amount is equal to the annual per unit cost and includes depreciation, maintenance, administration, return, taxes, and any other costs identified in the supporting documentation provided at the time the special construction case is filed.

Upon the expiration of the ILP, the number of underutilized facilities, if any, are multiplied by the annual underutilization liability amount. This product is then multiplied by the number of years (including any fraction thereof) in the ILP to determine the underutilization charge.

Annually thereafter, the number of underutilized facilities, if any, existing on the anniversary of the ILP expiration date will be multiplied by the annual underutilization liability amount to determine the underutilization charge for the preceding 12 month period.

Example

A Customer orders 100 services and the special construction of a 600 pair building riser cable is agreed to, based on the Customer's five year facility requirements. The ILP, in this example, would be filed at five years. The annual underutilization liability is filed at $2 per pair. If 400 pairs were in service at the end of the ILP, there would be an underutilization of 20 pairs, i.e., 420 (70 percent of 600) - 400 = 20. The total underutilization charge for the first five years would be $200, or $2 per pair x 20 pairs x 5 years.

If 420 pairs are in service at the end of the sixth year, there is no underutilization, i.e., 420 - 420 = 0.

ACCESS SERVICE

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.

11.1.2 Avoidance

A service must be provided on a route which avoids specified geographical locations.

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 Section 4; Narrowband, Voice Grade, and Wideband Analog Special Access Services as set forth in Sections 5.2.1(A), (B), and (E) and Special Federal Government Access Services as set forth in Section 12. Cable-Only Facilities are available for Switched Access Service as set forth in Section 4; Voice Grade Special Access Services as set forth in Section 5.2.1(B) and Special Federal Government Access Services as set forth in Section 12.

ACCESS SERVICE

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 (Cont'd)

In order to avoid special routing compromise, the Telephone Company will provide the ordering Customer with the routing information for each specially routed service. 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 Section 11.2 are in addition to all other rates and charges that may be applicable for services provided under other sections of this tariff.

11.2 Rates and Charges for Special Facilities Routing of Access Services

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 Section 11.1.1, the rates and charges will be developed on an individual case basis.

11.2.2 Avoidance

For each service provided in accordance with Section 11.1.2 the rates and charges will be developed on an individual case basis.

11.2.3 Diversity and Avoidance Combined

For each service provided in accordance with Sections 11.1.1 and 11.1.2 combined, the rates and charges will be developed on an individual case basis.

11.2.4 Cable-Only Facilities

For each service provided in accordance with Section 11.1.3, the rates and charges will be developed on an individual case basis.

ACCESS SERVICE

12. Special Federal Government Services

12.1 General

This section covers Special Access Services that are provided to a Customer for use only by agencies or branches of Federal Government and other users authorized by the Federal Government, including state or local emergency operations centers. 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 the 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.

12.2 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 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.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.2 Emergency Conditions (Cont'd)

- Political unrest in foreign countries which affect the national interest.
- Presidential service.

12.3 Intervals to Provide Service

Services provided under the provisions of this section are provided on an individual case basis.

12.4 Availability of Facilities

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.

12.5 Federal Government Regulations

In accordance with Federal Government Regulations, all service provided directly to the Federal Government will be billed in arrears. This provision does not apply to other Customers that obtain services under the provisions of this tariff to provide service to the Federal Government.

12.6 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, authorized users and state emergency operation 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.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.1 Type and Description

(A) Voice Grade Special Access Services

(1) Voice Grade Secure Communications Type I

The approximate bandwidth of this type of service is 10-50,000 Hz. It is furnished for two-point and secure communications on two-wire or four-wire metallic facilities between Customer designated 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 is 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 1,000 Hz and 50,000 Hz

(+ means more loss)

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.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.1 Type and Description (Cont'd)

(A) Voice Grade Special Access Services (Cont'd)

(2) Voice Grade Secure Communications Type II

The approximate bandwidth of this type of service is 10-50,000 Hz. It is furnished on four-wire metallic facilities for duplex operation for two-point secure communication between Customer designated 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.

(3) Voice Grade Secure Communications Type III

The approximate bandwidth of this type of service is 10-50,000 Hz. It is furnished on four-wire metallic facilities for duplex operation for two-point secure communication between Customer designated premises. Services are conditioned as follows:

G-2 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.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.1 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 include the following:

(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.

(C) Special Routing Access Service

Special Routing Access Service is furnished only to AT&T 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 customers premises utilizing a Special Routing Plan.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.1 Type and Description (Cont'd)

(C) Special Routing Access Service (Cont'd)

This service is an optional service which operates in conjunction with Trunk Side Premium Access Service furnished to AT&T under other provisions of this tariff.

Rates and Charges for Special Routing Access Service will be provided on an individual case basis.

12.6.2 Mileage Application

Mileage for rate application is the airline distance measured between the service terminating points.

12.6.3 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.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.3 Rates and Charges (Cont'd)

(A) Voice Grade Special Access Service (Cont'd)

Voice Grade Secure Communications	Monthly Rates	Nonrecurring Charges	Termination Charges
Type I, each T-3 Conditioning,	ICB rate and charges apply		
Additional Conditioning, per service termination	ICB rate and charges apply		
Type II, each G-1 Conditioning,	ICB rate and charges apply		
Type III, each G-2 Conditioning,	ICB rate and charges apply		
Type IV, each G-3 Conditioning,	ICB rate and charges apply		

ICB rates and charges are determined on an individual case basis.

ACCESS SERVICE

12. Special Federal Government Services (Cont'd)

12.6 Service Offerings to the Federal Government (Cont'd)

12.6.3 Rates and Charges (Cont'd)

(B) Wideband Digital Special Access Service

Wide Band Secure Communications	Monthly Rates	Nonrecurring Charges	Termination Charges
Type I, each	ICB rate and charges apply		
Type II, each	ICB rate and charges apply		
Type III, each	ICB rate and charges apply		

(C) Move Charges

When a service requiring T-3 conditioning, T-3 additional Conditioning, or a service requiring G Conditioning as set forth in Section 12.6.3(A) is moved to a different building or to a new location in the same building, the nonrecurring charge applies.

When any service, for which a termination charge is specified, is moved and is installed at a new location, the Customer may elect:

(1) to pay the unexpired portion of the termination charge for the service, if any, with the application of a nonrecurring charge and the establishment of a new termination charge for such service at the new location, or

(2) 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, taxes, and any other specific items of cost directly attributable to the move.

ACCESS SERVICE

13. Reserved For Future Use

ACCESS SERVICE

14. Reserved For Future Use