NHPUC No. 10 (N)

UNION TELEPHONE COMPANY

SUPPLEMENT NO. 1

TARIFF

FOR

ACCESS SERVICE

IN

THE STATE OF NEW HAMPSHIRE

AUTHORIZED BY NHPUC ORDER NO. 22,477 IN DOCKET NO. DR 95-311
DATED JANUARY 13, 1997 (N)

Issued: January 16, 1997 Issued by: Robert W. Daniels
Effective: January 1, 1997 Title: Vice President

ACCESS CHARGE REFUND

This refund is filed for an effective period of January 15, 1996 through December 31, 1996. The refund will be credited to access charge customers in the January, 1997 billing.

The refund will consist of an amount equal to the sum of $56,250 and will be credited to Union's access customers in proportion to each customer's total tariffed charges for local switching service during the above effective period. (R)

AUTHORIZED BY NHPUC ORDER NO. 22,477 IN DOCKET NO. DR 95-311 DATED JANUARY 13, 1997.

Issued: January 27, 1997
Effective: January 1, 1997

Issued by: Richard P. Thayer
Title: President

NHPUC No. 10
UNION TELEPHONE COMPANY
TARIFF CHECK SHEET

SECTION 3

Page 1	Original
Page 2	Original
Page 3	Original
Page 4	First
Page 5	First
Page 6	First
Page 7	First
Page 8	Original
Page 9	First
Page 10	Sixth

SECTION 4

Page 1	Original

SECTION 5

Page 1	First

SECTION 6

Page 1	First
Page 2	Original
Page 3	Original
Page 4	Original
Page 5	First
Page 6	Original
Page 7	First
Page 8	First
Page 9	Original
Page 10	Original
Page 11	First
Page 12	First
Page 13	Second
Page 14	Third

SECTION 7

Page 1	First

SECTION 8

Page 1	Original

SECTION 9

Page 1	First

SECTION 10

Page 1	Original

SECTION 11

Page 1	First

SECTION 12

Page 1	First
Page 2	First

SECTION 13

Page 1	Second

SECTION 14

Page 1	Original

SECTION 15

Page 1	First

NHPUC No. 10
UNION TELEPHONE COMPANY
TARIFF CHECK SHEET

SECTION 3

Page 1	Original
Page 2	Original
Page 3	Original
Page 4	First
Page 5	First
Page 6	First
Page 7	First
Page 8	Original
Page 9	First
Page 10	Seventh

SECTION 4

Page 1	Original

SECTION 5

Page 1	First

SECTION 6

Page 1	First
Page 2	Original
Page 3	Original
Page 4	Original
Page 5	First
Page 6	Original
Page 7	First
Page 8	First
Page 9	Original
Page 10	Original
Page 11	First
Page 12	First
Page 13	Second
Page 14	Third

SECTION 7

Page 1	First

SECTION 8

Page 1	Original

SECTION 9

Page 1	First

SECTION 10

Page 1	Original

SECTION 11

Page 1	First

SECTION 12

Page 1	First
Page 2	First

SECTION 13

Page 1	Second

SECTION 14

Page 1	Original

SECTION 15

Page 1	First

NHPUC - No. 10

UNION TELEPHONE COMPANY

RATES AND CHARGES

EFFECTIVE IN
THE STATE OF
NEW HAMPSHIRE

Dated: August 31, 1993 Issued by: Richard P. Thayer
Effective: October 1, 1993 Title: President
Issued in Compliance with Order No. 20,916 in Docket DE 90-002 dated 8/2/93.

UNION TELEPHONE COMPANY

MASTER TABLE OF CONTENTS

NHPUC - No. 10

ACCESS SERVICES

Dated: September 28, 1993 Issued by: Robert W. Daniels
Effective: October 1, 1993 Title: Vice President
Issued in Compliance with Order No. 20,916 in Docket DE 90-002 dated 8/2/93.

ACCESS SERVICES

ACCESS SERVICES

Page No.

2. GENERAL REGULATIONS (Continued)

2.6 Definitions (Continued)

(D)

ACCESS SERVICES

Page No.

2. GENERAL REGULATIONS (Continued)

2.6 Definitions (Continued)

ACCESS SERVICES

ACCESS SERVICES

ACCESS SERVICES

ACCESS SERVICES

CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

REGISTERED SERVICE MARKS	REGISTERED TRADEMARKS
NONE	NONE

ACCESS SERVICES

EXPLANATION OF SYMBOLS

(C)	-	To signify changed regulation
(D)	-	To signify discontinued rate or regulation
(I)	-	To signify increase
(N)	-	To signify new rate or regulation
(R)	-	To signify reduction
(S)	-	To signify the incorporation of material previously effective on a supplement
(T)	-	To signify a change in text but no change in rate or regulation
(X)	-	To signify matter relocated without a change

EXPLANATION OF ABBREVIATIONS

ac	-	Alternating current
ANI	-	Automatic Number Identification
BHMC	-	Busy Hour Minutes of Capacity
CO	-	Central Office
dB	-	decibel
dc	-	direct current
ELEPL	-	Equal Level Echo Path Loss
EPL	-	Echo Path Loss
f	-	frequency
FID	-	Field Identifier
F.C.C.	-	Federal Communications Commission
Hz	-	Hertz
IC	-	Interexchange Carrier
ICB	-	Individual Case Basis
LATA	-	Local Access and Transport Area
MTS	-	Message Telecommunications Service(s)
NECA	-	National Exchange Carrier Association, Inc.
NPA	-	Numbering Plan Area
NXX	-	Three-Digit Central Office Code
TSPS	-	Traffic Service Position System
V & H	-	Vertical & Horizontal
WATS	-	Wide Area Telecommunications Service(s)

REFERENCE TO OTHER TARIFFS

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

REFERENCE TO OTHER PUBLICATIONS

Reference to publications, (technical or otherwise), may be made in this tariff. Such publications may be obtained from the sources specified in NYNEX Tariff F.C.C. No. 1.

1. Application of Tariff

1.1 This tariff contains regulations, rates and charges applicable to Access Services and other miscellaneous services, hereinafter referred to collectively as service(s), provided by Union Telephone Company, hereinafter referred to as the Telephone Company, to Wireless Carriers, to Payphone Service Providers and to Interexchange Carrier(s), including resellers or other entities engaged in the provision of Public Utility Common Carrier Services which utilize the network of the Telephone Company, who are certified to provide such services by the New Hampshire Public Utilities Commission. (C)

1.2 For purposes of administering this tariff Wireless Carriers and Interexchange Carriers, including resellers or other entities engaged in the provision of Public Utility Common Carrier Services which utilize the network of the Telephone Company, who are certified to provide such services by the New Hampshire Public Utilities Commission, are hereinafter referred to as Customers.

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

1.4 The regulations, rates and charges contained herein are in addition to the regulations, rates and charges specified in other tariffs of the Telephone Company.

1.5 The operating territory of the Telephone Company is comprised of the locations set forth in Section 15.

2. General Regulations

2.1 Undertaking of the Telephone Company

2.1.1 Scope

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

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

(C) The Telephone Company will, for maintenance purposes, test its services only to the extent necessary to detect and/or clear troubles.

(D) Services are provided 24 hours daily, seven days per week, except as set forth in other applicable sections of this tariff.

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

2.1.2 Limitations

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

(1) another Customer, whether an individual, partnership, association or corporation, provided the assignee or transferee assumes all outstanding indebtedness for such services, and the unexpired portion of the minimum period and the termination liability applicable to such services, if any; or

(2) a court-appointed receiver, trustee or other person acting pursuant to law in bankruptcy, receivership, reorganization, insolvency, liquidation or other similar proceedings, provided the assignee or transferee assumes the unexpired portion of the minimum period and the termination liability applicable to such services, if any.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.2 Limitations (Cont'd)

In all cases of assignment or transfer, the written acknowledgment of the Telephone Company is required prior to such assignment or transfer which acknowledgement shall be made within 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.

(B) The use, installation and restoration of services shall be in accordance with Part 64.401, Appendix A, of the Federal Communications Commission's Rules and Regulations, which specifies the priority system for such activities.

(C) Subject to compliance with the rules mentioned in (B) preceding, where a shortage of facilities or equipment exists at any time, either for temporary or protracted periods, the services offered herein will be provided to Customers on a first-come, first-served basis.

2.1.3 Liability

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

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

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

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

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

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

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

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

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

(1) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from the Customer's own communications;

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

(E) (Cont'd)

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

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

(F) 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 Customer's use of services so provided.

(G) 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.

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

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.4 Provision of Services

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

2.1.5 Installation and Termination of Services

The Access Services provided under this tariff (A) include Telephone Company communication facilities up to the Point of Termination as defined in Section 2.6 which denotes the demarcation point and (B) will be installed by the Telephone Company to such Point of Termination. If the Point of Termination is moved subsequent to the original installation, charges apply as appropriate. Any additional terminations at the Customer's premises beyond such Point of Termination are the sole responsibility of the Customer.

2.1.6 Maintenance of Services

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

2.1.7 Changes and Substitutions

Except as provided for equipment and systems subject to FCC Part 68 Regulations at 47 C.F.R. Section 68.110(b), the 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

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.7 Changes and Substitutions (Cont'd)

facilities, (B) change minimum protection criteria, (C) change operating or maintenance characteristics of facilities or (D) change operations or procedures of the Telephone Company. In case of any such substitution, change or rearrangement, the transmission parameters will be within the range as set forth in Section 6. The Telephone Company shall not be responsible if any such substitution, change or rearrangement renders any Customer furnished services obsolete or requires modification or alteration thereof or otherwise affects their use or performance. If such substitution, change or rearrangement materially affects the operating characteristics of the facility, the 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 determine reasonable notification requirements.

2.1.8 Refusal and Discontinuance of Service

(A) Unless the provisions of Section 2.2.2(B) apply, if the Customer fails to comply with Sections 2.1.6, 2.2, 2.3, 2.4 or 2.5, including any payments to be made by it on the dates and times herein specified, the Telephone Company may, on thirty (30) days' written notice by Certified U.S. Mail to the person designated by the Customer to receive such notices of noncompliance, refuse additional applications for service and/or refuse to complete any pending orders for service at any time thereafter. If the Telephone Company does not refuse additional applications for service on the date specified in the thirty (30) days' notice, and the Customer's noncompliance continues, nothing contained herein shall preclude the Telephone Company's right to refuse additional applications for service without further notice.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.8 Refusal and Discontinuance of Service (Cont'd)

(B) Unless the provisions of Section 2.2.2(B) apply, if the Customer fails to comply with Sections 2.1.6, 2.2, 2.3, 2.4, or 2.5, including any payments to be made by it on the dates and times herein specified, the Telephone Company may, on thirty (30) days written notice by Certified U.S. Mail to the person designated by the Customer to receive such notices of noncompliance, discontinue the provision of the services involved at any time thereafter. In the case of such discontinuance, all applicable charges, including termination charges, shall become due. If the Telephone Company does not discontinue the provision of the services involved on the date specified in the thirty (30) days notice, and the Customer's noncompliance continues, nothing contained herein shall preclude the Telephone Company's right to discontinue the provision of the services involved without further notice.

2.1.9 Limitation of Use of Metallic Facilities

Signals applied to a metallic facility shall conform to the limitations set forth in Technical Reference Publication AS No. 1. In the case of 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.

2.1.10 Notification of Service-Affecting Activities

The Telephone Company will provide the Customer reasonable notification of service-affecting activities that may occur in normal operation of its business. Such activities may include, but are not limited to, equipment or facilities additions, removals or rearrangements, routine preventative maintenance and major switching machine change-out. Generally, such activities are not individual Customer

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.10 Notification of Service-Affecting Activities (Cont'd)

service specific; they affect many Customer services. No specific advance notification period is applicable to all service activities. The Telephone Company will work cooperatively with the Customer to determine the reasonable notification requirements. With some emergency or unplanned service-affecting conditions, such as an outage resulting from cable damage, notification to the Customer may not be possible.

2.1.11 Coordination with Respect to Network Contingencies

The Telephone Company intends to work cooperatively with the Customer to develop network contingency plans in order to maintain maximum network capability following natural or man-made disasters which affect telecommunications services, in accordance with Part 64.401, Appendix A of the Federal Communications Commission's Rules and Regulations.

2.1.12 Provision and Ownership of Telephone Numbers

The Telephone Company reserves the reasonable right to assign, designate or change telephone numbers, any other call number designations associated with Access Services, or the Telephone Company serving central office prefixes associated with such numbers, when necessary in the conduct of its business. Should it become necessary to make a change in such number(s), the Telephone Company will furnish to the Customer six months notice, by Certified U.S. Mail, of the effective date and an explanation of the reasons for such change(s). In the case of emergency conditions however, e.g., a fire in a wire center, it may be necessary to change a telephone number without six months notice in order to provide service to the Customer.

2.2 Use

2.2.1 General

A Customer, authorized by the New Hampshire Public Utilities Commission, offering Public Utilities Common Carrier Services will receive service under this Union Telephone Company Tariff NHPUC - No. 10, as set forth in Section 1. preceding.

2. General Regulations (Cont'd)

2.2 Use

2.2.2 Interference or Impairment

(A) The characteristics and methods of operation of any circuits, facilities or equipment provided by other than the Telephone Company and associated with the facilities utilized to provide services under this tariff shall not interfere with or impair service over any facilities of the Telephone Company, its affiliated companies, or its connecting and concurring carriers involved in its services, cause damage to their plant, impair the privacy of any communications carried over their facilities or create hazards to the employees of any of them or the public.

(B) Except as provided for equipment or systems subject to the FCC Part 68 Rules in 47 C.F.R. Section 68.108, if such characteristics or methods of operation are not in accordance with (A) preceding, the Telephone Company will, where practicable, notify the Customer that temporary discontinuance of the use of a service may be required; however, where prior notice is not practicable, nothing contained herein shall be deemed to preclude the Telephone Company's right to temporarily discontinue forthwith the use of a service if such action is reasonable under the circumstances. In case of such temporary discontinuance, the Customer will be promptly notified and afforded the opportunity to correct the condition which gave rise to the temporary discontinuance. During such period of temporary discontinuance, credit allowance for service interruptions as set forth in Section 2.4.4 is not applicable.

2. General Regulations (Cont'd)

2.2 Use (Cont'd)

2.2.3 Unlawful and Abusive Use

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

Abusive use includes:

(1) The use of the service of the Telephone Company for a call or calls, anonymous or otherwise, in a manner reasonably expected to frighten, abuse, torment, or harass another;

(2) The use of the service in such a manner as to interfere unreasonably with the use of the service by one or more other customers.

2.3 Obligations of the Customer

2.3.1 Damages

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

2.3.2 Ownership of Facilities and Theft

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

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.3 Equipment Space and Power

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

2.3.4 Availability for Testing

The services provided under this tariff shall be available to the Telephone Company at times mutually agreed upon in order to permit the Telephone Company to make tests and adjustments appropriate for maintaining the services in satisfactory operating condition. Such tests and adjustments shall be completed within a reasonable time. No credit will be allowed for any interruptions involved during such tests and adjustments.

2.3.5 Balance

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

2.3.6 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 which may be required because of changes in facilities, operations or procedures of the Telephone Company, minimum protection criteria or operating or maintenance characteristics of the facilities.

2. 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 Claims and Demands for Damages

(A) With respect to claims of patent infringement made by third persons, the Customer shall defend, indemnify, protect and save harmless the Telephone Company from and against all claims arising out of the combining with, or use in connection with, the services provided under this tariff, any circuit, apparatus, system or method provided by the Customer.

(B) The Customer shall defend, indemnify and save harmless the Telephone Company from and against suits, claims, losses or damages including punitive damages, attorneys' fees and court cost by third persons arising out of the construction, installation, operation, maintenance, or removal of the Customer's circuits, facilities, or equipment connected to the Telephone Company's services provided under this tariff, including, without limitation, Workmen's Compensation claims, actions for infringement of copyright and/or unauthorized use of program material, libel and slander actions based on the content of communications transmitted over the Customer's circuits, facilities or equipment, and proceedings to recover taxes, fines, or penalties for failure of the Customer to obtain or maintain in effect any necessary certificates, permits, licenses, or other authority to acquire or operate the services provided under this tariff; provided, however, the foregoing indemnification shall not apply to suits, claims, and demands to recover damages for damage to property, death, or personal injury unless such suits, claims or demands are based on the tortious conduct of the Customer, its officers, agents or employees.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.8 Claims and Demands for Damages (Cont'd)

(C) The Customer shall defend, indemnify and save harmless the Telephone Company from and against any suits, claims, losses or damages, including punitive damages, attorney's fees and court costs by the Customer or third parties arising out of any act or omission of the Customer in the course of using services provided under this tariff.

2.3.9 Coordination with Respect to Network Contingencies

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

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report and Certification Requirements

(A) Jurisdictional Reporting - Switched Access

(1) General (C)

The following regulations govern jurisdictional reporting by the customer and cases where the Telephone Company will develop jurisdictional percentages.

(a) Sufficient Call Detail Billing

When the Telephone Company receives sufficient call detail to determine the jurisdiction of the originating and terminating access minutes of use, the Telephone Company shall use that call detail to render bills for those minutes of use, and shall not apply the jurisdictional factor(s) to those minutes of use.

(b) Insufficient Call Detail Billing

When the Telephone Company receives insufficient call detail to determine the jurisdiction of the originating and terminating access minutes of use, the Telephone Company will apply the jurisdictional factor(s) provided by the customer or developed by the Telephone Company as set forth below, only to those minutes of use for which the Telephone Company does not have sufficient call detail. Such jurisdictional factor(s) will be used until the customer provides an update to its jurisdictional factor(s) as set forth below.

For all flat rated Switched Access Services, the Telephone Company will apply the jurisdictional factor(s) as provided by the customer or developed by the Telephone Company as set forth below, each month until the customer provides an update to its factor(s) as described below. (C)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(A) Jurisdictional Reporting - Switched Access (Continued)

(2) Initial Order

When the customer submits an initial service order to the Telephone Company, the customer is required to provide the percentage of interstate and intrastate use for originating and/or terminating minutes for each service arranged for interstate and intrastate use.

If the Telephone Company receives usage for which no order for service has been received, the Telephone Company may develop the jurisdictional factors as needed.

(3) Quarterly Reports

Effective on the first of January, April, July, and October of each year, the customer shall update its interstate and intrastate jurisdictional report. The customer shall forward to the Telephone Company, to be received by the Telephone Company no later than fifteen days after the first of each such month, a revised report showing the interstate and intrastate percentage of use for the past three months ending the last day of December, March, June, and September, respectively, for each service arranged. Such revised report will serve as the basis for the next three months billing for determining the jurisdiction for Switched Access Services in cases where the Telephone Company does not have sufficient call detail to do so, and will be applied to the customer's usage on a prospective basis only. No prorating or back billing will be done based on the report.

For each service, the customer may only provide jurisdictional factors that are in a whole number format, i.e., a number from 0 to 100.

(C)

(C)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(A) Jurisdictional Reporting - Switched Access (Continued)

(3) Quarterly Reports (Continued)

If the customer does not supply a quarterly report, the Telephone Company will assume the percentages to be the same as those provided in the last quarterly report received. In the instance the customer has failed to update the percentages after six months either as set by the previous quarterly report or a service order, the Telephone Company may develop a jurisdictional percentage based on either actual usage, or a weighted average using billed access minutes of all other customers' usage.

(4) Subsequent Orders

When the customer adds Busy Hour Minutes of Capacity (BHMC), lines or trunks to an existing end office group, the customer shall furnish revised projected interstate and intrastate percentages that apply to the total BHMC, lines or trunks. When the customer discontinues BHMC, lines or trunks from an existing group, the customer shall furnish revised projected interstate and intrastate percentages for the remaining BHMC, lines or trunks in the end office group. The revised report will serve as the basis for future billing, and will be applied to the customer's usage on a prospective basis only. No prorating or back billing will be done based on the report.

(C)

(C)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(D)

(D)

(B) Disputes Involving Jurisdictional Reports

For Switched Access, if a jurisdictional dispute arises concerning the projected interstate or intrastate percentages, the Telephone Company will notify the customer to provide the data the customer used to determine the projected interstate or intrastate percentages. The Telephone Company will not request such data more than once a year provided that the customer complies with the initial request. The customer shall supply the data within thirty (30) days of the request.

If the customer fails to provide the requested data to the Telephone Company within thirty (30) days of the receipt of the notice, the customer will be in violation of the Tariff. In such event, the Telephone Company may develop percentages for originating and terminating usage based on either actual usage, or a weighted average using billed access minutes of all other customers' usage. This factor will be applied to the customer's usage on a prospective basis only and will be utilized until the customer provides supporting data that substantiates the requested percentages.

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued) (C)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(B) Disputes Involving Jurisdictional Reports (Continued)

If the Telephone Company finds that the data submitted by the customer does not adequately support the reported percentages, the Telephone Company may develop percentages for originating and terminating usage based on either actual usage, or a weighted average using billed access minutes of all other customers' usage. Upon assigning an intrastate percentage of use, the Telephone Company will notify the customer of the change and when it will go into effect. The Telephone Company's designated methodology used to develop the jurisdictional percentage will remain in effect for twelve (12) months.

If the Telephone Company and the customer cannot informally resolve the dispute, the customer may contest the designated intrastate percentage by requesting an audit be conducted by a mutually agreed upon independent auditor.

(1) The cost of an independent audit will be borne by the customer.

(2) During the audit, if the customer fails to provide the requested data to the auditor within thirty (30) days of the receipt of the notice, the customer will be in violation of the Tariff.

(3) The audit results will be furnished to both the customer and Telephone Company. (C)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.3 **Obligations of the Customer** (Continued) (C)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(B) Disputes Involving Jurisdictional Reports (Continued)

If the Telephone Company and the customer cannot informally resolve the dispute, the customer may contest the designated intrastate percentage by requesting an audit be conducted by a mutually agreed upon independent auditor. (Continued)

(4) The Telephone Company will adjust the customer's jurisdictional percentage based upon the audit results. The jurisdictional percentage resulting from the audit shall be applied to the customer's usage on a prospective basis only and will remain in effect for the two (2) quarters following the completion of the audit. After that time, the customer may report revised jurisdictional percentage pursuant to (A.3) above.

The Telephone Company may also request an independent audit to resolve a jurisdictional dispute. If, as a result of the audit conducted by an independent auditor, a customer is found to have over-stated its jurisdictional percentage by 5 percentage points or more, the Telephone Company shall require reimbursement from the customer for the cost of the audit. Such bill(s) shall be due and paid in immediately available funds within 30 days from receipt, and shall carry a late payment penalty as set forth in Section 2.4.1(C)(2)(b), Payment of Rates, Charges and Deposits following, if not paid within the 30 days. The jurisdictional percentage resulting from the audit shall be applied to the usage for the quarter the audit was completed, the usage for the quarter prior to the completion of the audit, and to the usage for the two quarters following the completion of the audit. After that time, the customer may report revised jurisdictional percentage pursuant to (A.3) above. (C)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report and Certification Requirements (Continued)

(C) Identification and Rating of Toll VoIP – PSTN Traffic - Originating

1) Scope

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 Toll VoIP-PSTN Traffic that is required to be compensated at interstate access rates (unless the parties have agreed otherwise) as mandated by the Federal Communications Commission in its Report and Order in WC Docket Nos. 10-90, etc., FCC Release No. 11-161 on November 18, 2011 ("FCC Order") and the FCC's Second Order of Reconsideration (12-47) released April 25, 2012. Specifically, this section establishes the method of separating Toll VoIP-PSTN Traffic from the Customer's traditional intrastate access traffic, so that such traffic can be billed in accordance with the FCC Orders.

(2) Rating of Toll VoIP-PSTN Traffic - Originating

The originating Toll VoIP-PSTN Traffic identified in accordance with this tariff section will be billed at rates equal to the Telephone Company's applicable tariffed interstate originating switched access rates as specified in the Telephone Company's applicable federal access tariff.

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

(a) The Telephone Company will determine the portion of dedicated facilities to which interstate rates will be applied under (2), preceding, by applying a PVU factor for dedicated switched access facilities to the dedicated facilities between the Telephone Company and the Customer.

(b) The Telephone Company will determine the number of originating intrastate Toll VoIP-PSTN Traffic minutes of use (MOU) to which interstate rates will be applied under (2), preceding, by applying an originating Percent VoIP Usage (PVU) factor to the total intrastate access MOU originated by a Telephone Company end user and delivered to the customer. (N)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report Requirements (Continued)

(C) Identification and Rating of VoIP – PSTN Traffic - Originating (Continued)

(3) Calculation and Application of Percent-VoIP-Usage Factor (Continued)

(c) The customer will calculate and furnish to the Telephone Company an originating PVUC factor (along with the supporting documentation as specified in (C)(3)(e) below) representing the whole number percentage of the customer's total originating intrastate access MOU that the customer receives from the Telephone Company and that is terminated in IP format and that would be billed by the Telephone Company as intrastate originating access MOU.

(d) If applicable, the Telephone Company will calculate and periodically update an originating PVUT factor representing the percentage (as a whole number) of total originating access MOU that the telephone company originated in IP format at the end user's premises, and that is sent to the customer.

(e) The Company will develop a customer Percent VoIP Usage ("PVU") factor combining the customer's PVUC factor with the Company's PVUT factor.

1) The PVU calculation below is applied when the Company does not bill based on actual call detail records for the Company's IP traffic at interstate rates.

PVU = PVUC + [PVUT x (1-PVUC)] applied to the Company's end user's total originating intrastate MOU and facility rate elements

Example: The customer reported that their PVUC as 40%. The Company's PVUT is 10%. This results in the following: PVU = 40% plus (10% times (1-40%)) = 46%

This means that 46% of the Intrastate originating MOU exchanged between the customer and the Company's end users will be rated at Interstate rates. (N)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report Requirements (Continued)

(C) Identification and Rating of VoIP – PSTN Traffic – Originating (Continued)

(3) Calculation and Application of Percent-VoIP-Usage Factor (Continued)

(e) (Continued)

2) The PVU calculation below is applied when the Company bills are based on the actual call detail records for the intrastate Company's IP traffic at interstate rates.

PVU = PVUC x (1-PVUT) applied to the Company's TDM end users' total intrastate originating MOU.

PVU = PVUC + [PVUT x (1-PVUC)] applied to the facility rate elements.

Example: The Company has identified that there was 10,500 intrastate originating MOU that were identified exchanged between the customer and the Company's IP end users. The customer reported that their PVUC as 40%. The Company's PVUT is 10%. This results in the following:

PVU = 40% times (1-10%) = 36%
This means that 36% of the Intrastate originating MOU exchanged between the customer and the Company's TDM end users will be rated at interstate rates and the intrastate 10,500 originating MOU will also be rated at interstate rates.
For the facility rate elements, the formula that is applied to the intrastate dedicated facilities is as follows:

PVU = 40% plus (10% times (1-40%)) = 46%
Therefore, 46% of the intrastate facilities will be rated at interstate rates.

(f) The Customer shall not modify their reported PIU factor to account for VoIP - PSTN Traffic.

(g) The Customer provided originating PVUC factor shall be based on information such as the number of the customer's retail VoIP subscriptions in the state (e.g. as reported on F.C.C. Form 477), traffic studies, actual call detail or other relevant and verifiable information.

(h) The Customer shall retain the call detail, work papers, and information used to develop the PVUC factor for a minimum of two years.

(i) If the Customer does not furnish the Telephone Company with the above PVUC factor, the Telephone Company will utilize a PVU factor equal to the Telephone Company supplied PVUT. (N)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report Requirements (Continued)

(C) Identification and Rating of VoIP – PSTN Traffic - Originating (Continued)

(4) Initial PVU Factor - Originating

(a) The initial originating PVUC factor must be submitted to the Telephone Company by April 15, 2014. If the Customer does not provide the originating PVUC factor by that date, the Telephone Company will set the calculated originating PVU factor equal to the Telephone Company supplied originating PVUT.

(5) PVU Factor Updates – Originating

The Customer may update the PVUC factor quarterly using the method set forth in subsection (3)(c), preceding. Any updated PVUC factor shall be forwarded to the Telephone Company no later than 15 days after the first day of January, April, July and/or October of each year. The revised PVUC factor shall be based on data for the prior three months, ending the last day of December, March, June and September, respectively. The revised calculated PVU factor will serve as the basis for future billing, and will be effective on the bill date of each such month, and shall serve as the basis for subsequent monthly billing until superseded by a new PVU factor. No prorating or back billing will be done based on the updated PVU factor. (N)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.10 Jurisdictional Report Requirements (Continued)

(C) Identification and Rating of VoIP – PSTN Traffic - Originating (Continued)

(6) PVUC Factor Verification – Originating

(a) Not more than four times in any year, the Telephone Company may request from the Customer an overview of the process used to determine the PVUC factor, the call detail records, description of the method for determining how the end user originates calls in IP format, and other information used to determine the Customer's PVUC factor–furnished to the Telephone Company in order to validate the PVUC factor supplied. The Customer shall comply, and shall reasonably supply the requested data and information within 15 days of the Telephone Company's request.

(b) The Telephone Company may dispute a Customer's PVUC factor in writing based upon:

- A review of the requested data and information provided by the Customer,
- The Telephone Company's reasonable review of other market information, F.C.C. reports on VoIP lines, such as F.C.C. Form 477 or state level results based on the F.C.C. Local Competition Report or other relevant data.
- A change in a reported PVUC factor by more than five percentage points from the preceding submitted factor.

(c) If after review of the data and information, the Customer and the Telephone Company establish a revised PVU factor, the Telephone Company may apply the revised PVU factor retroactively to the beginning of the quarter. (N)

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued) (N)

2.3 **Obligations of the Customer** (Continued)

2.3.11 Jurisdictional Report Requirements (Continued)

(C) Identification and Rating of VoIP – PSTN Traffic – Originating (Continued)

(6) PVUC Factor Verification – Originating (Continued)

(d) If the dispute is unresolved, the Telephone Company may initiate an audit. The Telephone Company shall limit audits of the Customer's PVUC factor to no more than twice per year. The Customer may request that the audit be conducted by an independent auditor. In such cases the associated auditing expenses will be paid by the Customer. The Customer shall respond to the audit request within 15 days of the request.

- In the event that the Customer fails to provide adequate records to enable the Telephone Company or an independent auditor to conduct an audit verifying the Customer's PVUC factor, the Telephone Company will bill the usage for all contested periods using the most recent undisputed PVUC factor reported by the Customer to be used in the calculated PVU factor. The calculated PVU factor will remain in effect until the audit can be completed.

- The Telephone Company will adjust the Customer's PVUC factor based on the results of the audit and implement the newly calculated PVU factor in the next billing period or quarterly report date, whichever is first. The newly calculated PVU factor will apply for the next two quarters before new PVUC factor can be submitted by the Customer.

- If the audit supports the Customer's PVUC factor, the usage for the contested periods will be retroactively adjusted to reflect the Customer's audited PVUC factor in the calculation of the PVU factor. (N)

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

(D)

2.3.11 Determination of Intrastate Charges for Mixed Interstate and Intrastate Access Service

When mixed interstate and intrastate Access Service is provided, all charges (i.e., nonrecurring, monthly and/or usage), including optional features charges, will be prorated between interstate and intrastate. The percentages as set forth in Section 2.3.10 will serve as the basis for calculating the charges. The percentages of an Access Service to be charged as intrastate are applied in the following manner:

(A) For monthly and/or usage and nonrecurring chargeable rate elements associated with Access Services multiply the intrastate percent times the quantity of chargeable elements times the state tariff rate per element.

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.11 Determination of Intrastate Charges for Mixed Interstate and Intrastate Access Service (Cont'd)

(B) For usage sensitive (i.e., Access Minutes) chargeable rate elements, charges are calculated as follows:

(1) multiply the percent intrastate use times actual use (i.e., measured, Telephone Company assumed average use) times the state tariff rate.

The intrastate percentage will change as revised usage reports are submitted or a revised percentage is calculated as set forth in Section 2.3.10.

2.3.12 Report Requirements When More Than One Exchange Telephone Company is Involved

In addition to furnishing the jurisdictional reports specified in Sections 2.3.10 and 2.3.11, when service(s) is provided where one end of the Local Transport element is in the Telephone Company operating territory and the other end is in another Exchange Telephone Company operating territory, the Customer will provide on the first business day of each calendar month a record of usage data and the other Exchange Telephone Company associated with it. This information will be used to calculate billing as set forth in Section 2.4.7.

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 will, in order to safeguard its interests, require only a Customer which has a proven history of late payments to the Telephone Company or does not have established credit except for a Customer which is a successor of a company which has established credit and has no history of late payments to the Telephone Company, to make a deposit prior to or at any time after the provision of a service to the Customer to be held by the Telephone Company as a guarantee of the payment of rates and charges. Such deposit may not exceed the actual or estimated rates and charges for the service for a two month period. The fact that a deposit has been made in no way relieves the Customer from complying with the Telephone Company's regulations as to the prompt payment of bills. At such time as the provision of the service to the Customer is terminated the amount of the deposit will be credited to the Customer's account and any credit balance which may remain will be refunded. At the option of the Telephone Company, such a deposit will be refunded or credited to the Customer's account when the Customer has established credit or after the Customer has established a one year prompt payment record at any time prior to the termination of the provision of the service to the Customer. In case of a cash deposit, for the period the deposit is held by the Telephone Company, the Customer will receive interest at the same percentage rate as that set forth in (B)(2)(b). Interest will accrue for the number of days from the date the Customer deposit is received by the Telephone Company to and including the date such deposit is credited to the Customer's account or the date the deposit is refunded by the Telephone Company. Should a deposit be credited to the Customer account, as indicated above, no interest will accrue on the deposit from the date such deposit is credited to the Customer's account. (D)

(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

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.4 Payment Arrangements and Credit Allowances (Continued)

2.4.1 Payment of Rates, Charges and Deposits (Continued)

(B) (Continued)

Established or discontinued or provided during the preceding billing period. In addition, the Telephone Company shall bill in advance charges for all services to be provided during the ensuing billing period except for charges associated with service usage and for the Federal Government which will be billed in arrears.

The bill day (i.e., the billing date of a bill for a Customer for Access Service under this tariff), the period of service each bill covers and the payment date will be as follows:

(1) The Telephone Company will establish a bill day each month for each Customer account or advise the customer in writing of an alternate billing schedule. Alternate billing schedules shall not be established on less than 60 days' notice or initiated by the Telephone Company more than twice in any consecutive 12 month period. The bill will cover non-usage sensitive service charges for the ensuing billing period for which the bill is rendered, any known unbilled non-usage sensitive charges for prior periods and unbilled usage charges for the period after the last bill day thru the current bill day. Any known unbilled usage charges for prior periods and any known unbilled adjustments will be applied to this bill. Payment for such bills is due as set forth in (2) following. If payment is not received by the payment date, as set forth in (2) following in immediately available funds, a late payment penalty will apply as set forth in (2) following. (T) | (T)

(2)(a) All bills dated as set forth in (1) preceding for service, provided to the Customer by the Telephone Company, are due 31 days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date) whichever is the shortest interval, except as provided herein, and are payable in immediately available funds. If such payment date would cause payment to be due on a Saturday, Sunday or a Legal Holiday, payment for such bills will be due from the Customer as follows:

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)

(2) (a) (Cont'd)

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

(b) Further, if any portion of the payment is received by the Telephone Company after the payment date as set forth in (a) preceding, or if any portion of the payment is received by the Telephone Company in funds which are not immediately available to the Telephone Company, then a late payment penalty shall be due to the Telephone Company. The late payment penalty shall be the portion of the payment not received by the payment date times a late factor. The late factor shall be 0.0005 per day for the number of days from the payment date to and including the date that the Customer actually makes the payment to the Telephone Company. (D)

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

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)

(2) (c) (Cont'd)

- The first day of the dispute shall be the date on which the Customer furnishes the Telephone Company with the account number under which the bill has been rendered, the date of the bill and the specific items on the bill being disputed.

- The date of resolution shall be the date on which the Telephone Company completes its investigation of the dispute, notifies the Customer of the disposition and, if the billing dispute is resolved in favor of the Customer, applies credit for the correct disputed amount, the disputed amount penalty and/or late payment penalty as appropriate.

- If a billing dispute is resolved in favor of the Telephone Company, any payments withheld pending resolution of the dispute shall be subject to the late payment penalty set forth in (b) preceding. Further, the Customer will not receive credit for the disputed amount of the disputed amount penalty.

- If a Customer disputes a bill within three months of the payment date and pays the total billed amount on or before the payment date, and the billing dispute is resolved in favor of the Customer, the Customer will receive a credit for a disputed amount penalty from the Telephone Company for the period starting with the date of payment and ending on the date of resolution. The credit for a disputed amount penalty shall be as set forth following.

- If a Customer disputes a bill within three months of the payment date and pays the total billed amount after the payment date and the billing dispute is resolved in favor of the Customer, the Customer will receive a credit for a disputed

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)

(2) (c) (Cont'd)

amount penalty from the Telephone Company for the period starting with the date of payment and ending on the date of resolution. The credit for a disputed amount penalty shall be as set forth following. The late payment penalty applied to the disputed amount resolved in the Customer's favor as set forth in (b) preceding will be credited.

- If a Customer disputes a bill within three months of the payment date and does not pay the disputed amount or does not pay the billed amount (i.e., the nondisputed and disputed amount), and the billing dispute is resolved in favor of the Customer, the Customer will not receive a credit for a disputed amount penalty from the Telephone Company. The late payment penalty applied to the disputed amount resolved in the Customer's favor as set forth in (b) preceding will be credited.

- If a Customer disputes a bill after three months from the payment date and pays the total billed amount on or before the dispute date, and the billing dispute is resolved in favor of the Customer, the Customer will receive a credit for a disputed amount penalty from the Telephone Company for the period starting with the date of dispute and ending on the date of resolution. The credit for a disputed amount penalty shall be as set forth following. The Customer will not receive a credit for the late payment penalty.

- If a Customer disputes a bill after three months from the payment date and does not pay the disputed amount or does not pay the billed amount (i.e., the nondisputed amount and disputed amount) and the billing dispute is resolved in favor of the Customer, the Customer will not receive a credit for a disputed amount penalty

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)

(2) (c) (Cont'd)

from the Telephone Company. However, if the Customer pays the disputed amount or the billed amount after the date of dispute and before the date of resolution the Customer will receive a credit for a disputed amount penalty from the Telephone Company for the period starting with the date of payment and ending on the date of resolution. The credit for a disputed amount penalty shall be as set forth following. The Customer will receive a credit for the late payment penalty, if applicable, from the Telephone Company. The late payment penalty credit shall be the disputed amount resolved in the Customer's favor times a late payment penalty factor as set forth in (b) preceding, for the period starting with the date of dispute and ending on the date of payment of the disputed amount or the date of resolution whichever occurs first.

The disputed amount penalty shall be the disputed amount resolved in the Customer's favor times a penalty factor. The penalty factor shall be the 0.0005 per day for the number of days from the first date to and including the last date of the period involved. (D)

(C) Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period set forth for services in other sections of this tariff will be prorated to the number of days or major fraction of days based on a 30 day month. The Telephone Company will, upon request and if available, furnish such detailed information as may reasonably be required for verification of any bill.

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

2.4.2 Minimum Periods

The minimum period for which services are provided and for which rates and charges are applicable is one month. (D)

When a service is discontinued prior to the expiration of the minimum period, charges are applicable, whether the service is used or not. The applicable charge will be the total monthly charges, at the rate level in effect at the time service is discontinued, for the remainder of the minimum period plus all applicable nonrecurring charges. (D)

2.4.3 Cancellation of an Order for Service

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

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions

(A) General

A service is interrupted when it becomes unusable to the Customer because of a failure of a facility component used to furnish service under this tariff or in the event that the protective controls applied by the Telephone Company result in the complete loss of service by the Customer as set forth in Section 6.5. An interruption period starts when an inoperative service is reported to the Telephone Company and ends when the service is operative.

(B) When A Credit Allowance Applies

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

(1) For Access Service no credit shall be allowed for an interruption of less than 24 hours. The Customer shall be credited for an interruption of 24 hours or more at the rate of 1/30 of the sum of (a) any applicable monthly rates or (b) the assumed minutes of use charge, when applicable for the service involved, for each period of 24 hours or major fraction thereof that the interruption continues.

(2) The credit allowance(s) for an interruption or for a series of interruptions shall not exceed the sum of (a) any applicable monthly rate or (b) the assumed minutes of use charge, whichever is applicable for the service involved, for the service interrupted in any one monthly billing period.

(D)
|
(D)

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(C) When A Credit Allowance Does Not Apply

No credit allowance will be made for:

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

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

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

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

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

(6) Periods of temporary discontinuance as set forth in Section 2.2.2(B).

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

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(D) 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.

(E) Temporary Surrender of a Service

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

2.4.5 Re-establishment of Service Following Fire, Flood or Other Occurrence

(A) Nonrecurring Charges Do Not Apply

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

(1) The service is of the same type as was provided prior to the fire, flood and other occurrence.

(2) The service is for the same Customer.

(3) The service is at the same location on the same premises.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.5 Re-establishment of Service Following Fire, Flood or Other Occurrence (Cont'd)

(4) The re-establishment of service begins within 60 days after Telephone Company service is available. (The 60 day period may be extended a reasonable period if the renovation of the original location on the premises affected is not practical within the allotted time period).

(B) Nonrecurring Charges Apply

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

2.4.6 Title or Ownership Rights

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

2.4.7 Ordering, Rating and Billing of Access Services Where More Than One Exchange Telephone Company Is Involved

The Telephone Company will handle ordering, rating and billing of Access Services under this tariff where more than one Exchange Telephone Company is involved in the provision of Access Service as follows:

(A) (1) When a Feature Group A Switched Access Service is ordered by a Customer where one end of the Local Transport element is in the Telephone Company operating territory and the other end is in another Exchange Telephone Company operating territory, the Exchange Telephone Company in whose territory the first point of

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Ordering, Rating and Billing of Access Services Where More Than One Exchange Telephone Company is Involved (Cont'd)

switching is located will accept the order. In addition, the Exchange Telephone Company in whose territory the Customer Point of Termination is located must also receive a copy of the order from the Customer. The Exchange Telephone Company that accepts the order will then determine the charges involved, arrange to provide the Access Service ordered and bill the charges in accordance with its Access Service tariff.

(2) The Telephone Company, if it is not the Exchange Telephone Company that bills Feature Group A charges in accordance with Section 2.4.7 (A)(1) above, will determine the charges involved and bill the charges in accordance with the rates in this tariff. This billing will be charged by the Telephone Company to the Exchange Telephone Company which bills FGA in accordance with Section 2.4.7 (A)(1) above. For purposes of this billing and its payment arrangements, the billed Exchange Telephone Company will be considered a Customer.

(B) Except as set forth in (A)(2) preceding, when Feature Group B, C and/or D Switched Access Service, Directory Assistance Service and/or Special Access is ordered by a Customer where one end of the Local Transport element is in the Telephone Company operating territory and the other end is in another Exchange Telephone Company operating territory, the orders shall be received as follows:

(1) For FGC and/or Directory Assistance Service, the Exchange Telephone Company in whose operating territory the end office is located must receive the order from the Customer.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Ordering, Rating and Billing of Access Services Where More Than One Exchange Telephone Company is Involved (Cont'd)

(2) For Feature Group B and/or D Switched Access Service, and/or Special Access, ordered to an end office, the Exchange Telephone Company in whose operating territory the end office is located must receive the order from the Customer.

(3) For Feature Group B and/or D Switched Access Service ordered to an access tandem, the Exchange Telephone Company in whose territory the access tandem is located must receive the order from the Customer.

(4) For the Service ordered set forth in (1), (2) and (3) preceding, the Exchange Telephone Company in whose territory the Customer premises is located must also receive a copy of the order from the Customer.

Each Exchange Telephone Company will provide the portion of the Local Transport element in its operating territory to an interconnection point (IP) with another Exchange Telephone Company and will bill the charges in accordance with its Access Service tariff. The charges for the Local Transport element will be determined as set forth in (D) following. The Local Transport Facility and Termination rates are set forth in Section 6. All other appropriate charges in each Exchange Telephone Company tariff are applicable.

(C) When a WATS Access Line Service is ordered and Channel Mileage applies (i.e., the WATS Serving Office and the end user end office are not coterminous) and one end of the Channel Mileage element is in the Telephone Company operating territory and the other end is in another Exchange Telephone Company operating territory, the Exchange

ACCESS SERVICE

2. **GENERAL REGULATIONS** (Continued)

2.4 Payment Arrangements and Credit Allowances (Continued)

2.4.7 Ordering, Rating and Billing of Access Services Where More Thank One Exchange Telephone Company is Involved (Continued)

(C) (Continued)

Telephone Company in whose operating territory the end office is located must receive the order from the Customer. In addition, the Exchange Telephone Company in whose territory the WATS Serving Office is located must also receive a copy of the order from the Customer. Each Exchange Telephone Company will provide the portion of the Channel Mileage element in its operating territory to an interconnection point (IP) with another Exchange Telephone Company and will bill the charges in accordance with its Access Service tariff. The rate for the Channel Mileage Facility element will be determined as set forth in (D) following. All other appropriate charges in each Exchange Telephone Company tariff are applicable.

(D) The charges for the Local Transport element and the rate for the Channel Mileage Facility element for services provided as set forth in (B) and (C) preceding are determined as follows:

(1) Determine the appropriate Local Transport Facility or Channel Mileage Facility* by computing the airline mileage between the two ends of the Local Transport Facility or Channel Mileage Facility element. Determine the airline mileage for the Local Transport Facility or Channel Mileage Facility Charge* using the V & H Coordinate method as set forth in NECA Tariff F.C.C. No. 4. Determine the airline mileage for the Channel Mileage Facility element* using the V & H Coordinate method. (C) (C) (C)

* As of July 1, 2021, the Joint Tandem Switched Transport rate element is applied per tandem to originating toll free minutes only, as set forth in Section 17.2.2 following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements. (N) (N)

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Ordering, Rating and Billing of Access Services Where More Than One Exchange Telephone Company is Involved (Cont'd)

(D) (Cont'd)

(2) For Feature Groups B, C and D Switched Access Services, the Local Transport charges are determined as set forth in (a) thru (e) following.

(a) Multiply:

The number of Access Minutes
by
the number of airline miles as determined in (1) preceding
by
the Telephone Company's appropriate Local Transport Facility per mile per access minute rate
by
the Telephone Company's billing percentage factor.

The resulting amount is the total Local Transport Facility Charge.

(b) Multiply:

The number of Access Minutes
by
the Telephone Company's appropriate Local Transport Termination per minute rate.

(c) Add:

The products of (a) and (b) for the total Local Transport charges.

(E) The interconnection points will be determined by the Exchange Telephone Companies involved. The billing percentage (BP) factor for the Telephone Company for the service between the two involved offices is listed in NECA Tariff F.C.C. No. 4.

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 Access Service furnished by the Telephone Company where such connection is made in accordance with the provisions specified in Technical Publication PUB 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 950-0XXX or 950-1XXX.

Access Minutes

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

Access Tandem

The term "Access Tandem" denotes a Telephone Company switching system that provides a concentration and distribution function for originating or terminating traffic between end offices and a Point of Termination.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Answer/Disconnect Supervision

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

Attenuation Distortion

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

Bit

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

Business Day

The term "Business Day" denotes the time 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 P.M., respectively, with an hour for lunch, Monday through Friday, resulting in a standard forty (40) hour work week. However, Business Day hours for the Telephone Company may vary based on company policy. To determine such hours for an individual company, or company location, that company should be contacted.

Busy Hour Minutes of Capacity (BHMC)

The term "Busy Hour Minutes of Capacity (BHMC)" denotes the Customer specified maximum amount of Switched Access Service Access Minutes the Customer expects to be handled in an end office switch during any hour in an 8:00 A.M. to 11:00 P.M. period for the Feature Group ordered. This Customer furnished BHMC quantity is the input data the Telephone Company uses to determine the number of transmission paths for the Feature Group ordered.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Call

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

Carrier or Common Carrier

See Interexchange Carrier.

CCS

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

Central Office

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

Central Office Prefix

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

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.

Channelize

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

(D)
|
(D)

Common Line

The term "Common Line" denotes a line, trunk, payphone 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. (C)

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.

Conversation Minutes

The term "Conversation Minutes" denotes the measurement of minutes beginning when either answer supervision or an off-hook supervisory signal is received from the terminating end user's end office and ending when either disconnect supervision or an on-hook supervisory signal is received from the terminating end user's end office, indicating the called party has disconnected.

Customer(s)

The term "Customer(s)" denotes any individual, partnership, association, joint-stock company, trust, corporation, or governmental entity or other entity which subscribes to the services offered under this tariff, including Interexchange Carriers (ICs), resellers or other entities engaged in the provisioning of public utility common carrier services which utilize the network of the Telephone Company and who have been certified to provide interexchange services by the New Hampshire Public Utilities Commission, as described in Section 1.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Decibel

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

Decibel Reference Noise C-Message Weighting

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

Decibel Reference Noise C-Message Referenced to 0

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

Detail Billing

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

Directory Assistance

The term "Directory Assistance" denotes the provision of telephone numbers by a Telephone Company operator when the operator location is accessed by a customer by dialing (NPA) 555-1212.

Echo Path Loss

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Echo Return Loss

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

Effective 2-Wire

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

Effective 4-Wire

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

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 trunks. Included are Remote Switching Modules and Remote Switching Systems served by a host office in a different wire center.

End User

The term "End User" denotes any customer of an intrastate 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. (D) | (D)

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Entry Switch

See First Point of Switching

Equal Level Echo Path Loss

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

Expected Measured Loss

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

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 end offices together with the associated facilities used in furnishing communications service within that area. One or more designated exchanges comprise a given Local Access and Transport Area.

Field Identifier

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

First Come - First Served

The term "First Come - First Served" denotes a procedure followed when a shortage of facilities or equipment occurs, such that an Access Service ordered cannot be installed. The orders delayed by the shortage of facilities will be prioritized according to the sequence in which they were received. That is, when facilities or equipment become available, the first order received will be the first order processed.

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's 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's premises.

Frequency Shift

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

Grandfathered

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

Host Office

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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, and U.S. Postal Money Orders.

Impedance Balance

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

Individual Case Basis

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

Inserted Connection Loss

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

Interexchange Carrier (IC) or Interexchange Common Carrier

The terms "Interexchange Carrier" (IC) or "Interexchange Common Carrier" denotes any individual, partnership, association, joint-stock company, trust, governmental entity or corporation, other than the Telephone Company, authorized by the New Hampshire Public Utilities Commission, and engaged for hire in intrastate communications by wire or radio, between two or more exchanges.

ACCESS SERVICE

2.6 **DEFINITIONS** (Continued)

Interstate Communications

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

Intrastate Communications

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

Joint Tandem Switched Transport

The term "Joint Tandem Switched Transport" denotes the rate element assessable for the transmission of originating toll free minutes. The rate element includes both the transport between the end office and the tandem switch and the tandem switching. It does not include transport of traffic over dedicated transport facilities between the serving wire center and the tandem switching office. (N) (N)

Legal Holiday

The term "Legal Holiday" denotes days other than Saturday or Sunday on which the Telephone Company is normally closed. These include New Year's Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and days when Veteran's Day, Washington's Birthday, Memorial Day and/or Columbus Day is legally observed and other locally observed holidays when the Telephone Company is closed. The Company will play notification on its bills to Customers of these days, other than Saturdays or Sundays, that the Company will be closed. Such notification for each such day will occur at least thirty days prior to such day.

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 Calling Area

The term "Local Calling Area" denotes a geographical area, as defined in Union Telephone Company Tariff NHPUC – No. 7, in which an end user (Telephone Exchange Service Subscriber) may complete a call without incurring MTS charges.

Local Tandem Switch

The term "Local Tandem Switch" denotes a local Telephone Company switching unit by which local or access telephonic communications are switched to and from an End Office Switch.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Loss Deviation

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

Major Fraction Thereof

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

Message

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

Network Control Signaling

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

North American Numbering Plan

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

Off-hook

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

On-hook

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

Operator Services Provider

The term "Operator Services Provider" denotes the provider of operator services to which an end user placing an operator assisted call is connected when the end user's pre-subscribed Interexchange Carrier designates a provider of operator services to handle its operator traffic.

Originating Direction

The term "Originating Direction" denotes the use of Switched Access Service for the origination of calls from an end user premises to an IC premises.

Pay Telephone

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

Payphone Service Provider (N)

An end user who subscribes to payphone service under the Telephone Company's general and/or local exchange service tariffs. (N)

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Point of Termination

The term "Point of Termination" denotes the demarcation point or network interface, at which the Telephone Company's responsibility for the provision of Access Service ends. The point of demarcation or network interface is the point of interconnection between Telephone Company communications facilities and Customer provided facilities as defined in Section 68.3 of the Federal Communications Commission's Rules and Regulations.

Premises

The term "Premises" denotes a building, or a portion of a building in a multitenant building, or buildings on continuous property (except Railroad Right-of-Way, etc.).

Remote Switching Modules and/or Remote Switching Systems

The term "Remote Switching Modules and/or Remote Switching Systems" denotes small, remotely controlled electronic end office switches which obtain their call processing capability from an ESS-type Host Office. The Remote Switching Modules and/or Remote Switching Systems cannot accommodate direct trunks to a Customer.

Return Loss

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Service Access Code

The term "Service Access Code" (SAC) denotes a three digit code that takes the place of an NPA in the dialing sequence. Particular services provided by an IC, BOC or Independent Telephone Company, may include but are not limited to 700 (IC Services), 800 (800 Access Service) and 900 (National DIAL-IT network communications service). Service Access Codes are associated with Switched Access Services that may be ordered by an IC as part of the Access Services tariff. A Telephone Company may screen calls and route to an IC-specified point of presence based upon the SAC dialed.

Singing Return Loss

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

Subtending End Office of an Access Tandem

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

Switching Systems

The term "Switching Systems" denotes the hardware and/or software utilized by the Telephone Company for the establishment and maintenance of a given central office.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Terminating Direction

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

Traffic Type

The term "Traffic Type" denotes three major types of traffic identified as: Originating, Terminating and Directory Assistance. Originating Traffic type represents access capacity within a LATA for carrying traffic from the end user to the Customer. Terminating Traffic type represents access capacity within a LATA for carrying traffic from the Customer to the end user. Directory Assistance traffic type represents access capacity within a LATA for carrying Directory Assistance traffic from the customer to a Directory Assistance location.

Transmission Path

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

Trunk

The term "Trunk" denotes a transmission 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.

2. General Regulations (Cont'd)
2.6 Definitions (Cont'd)

Trunk-Side Connection

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

Two-Wire to Four-Wire Conversion

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

V and H Coordinates Method

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

WATS Access Line Service

The term "WATS Access Line Service" denotes a service of that name described in NYNEX Tariff F.C.C. No. 1, or a service provided in accordance with NECA Tariff F.C.C. No. 5 or this Union Telephone Company Tariff NHPUC No. 10 that functions similarly to the above noted service.

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 the closed end of WATS or WATS-type services.

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.

Wireless Carriers (N)

Carriers which are regulated under Parts 22 and 90 of the Federal Communications Commission Rules and Regulations (N)

3. Carrier Common Line Access Service

The Telephone Company will provide Carrier Common Line Access Service to Customers in conjunction with Switched Access Service provided in Section 6.

Carrier Common Line Access provides for the use of end users' Telephone Company provided common lines by Customers for access to such end users to furnish Intrastate Communications.

Carrier Common Line Access also provides for the use of Switched Access Service terminating in 800 Access Line Service.

3.1 Limitations

3.1.1 Exclusions

Neither a telephone number nor detail billing are provided with Carrier Common Line Access. Additionally, directory listings and intercept arrangements are not included in the rates and charges for Carrier Common Line Access.

3.1.2 Access Groups

All trunk side connections provided in the same access group will be limited to the same features and operating characteristics.

All line side connections provided in the same access group will be limited to the same features and operating characteristics.

3.1.3 WATS Access Lines

Where Switched Access Services connect with private line type services at Telephone Company Designated WATS Serving Offices for provision of WATS or WATS-type Services, Switched Access Service minutes which are carried on that end of the service (i.e., originating minutes for outward WATS and WATS-type service and terminating minutes for inward WATS and WATS-type services) will be assessed Carrier Common Line Access per minute charges as set forth in Section 3.8.

3. Carrier Common Line Access Service (Cont'd)

3.2 Undertaking of the Telephone Company

3.2.1 Provision of Service

Where the Customer is provided with Switched Access Service under this tariff, the Telephone Company will provide the use of Telephone Company common lines by a Customer for access to end users at rates and charges as set forth in Section 3.8.

3.2.2. Interstate and Intrastate Use

The Switched Access Service provided by the Telephone Company includes the Switched Access Service provided for both interstate and intrastate communications. The Common Carrier Line Access rates and charges as set forth in Section 3.8 apply to intrastate Switched Access Service Access Minutes in accordance with the rate regulations as set forth in Section 3.7.

3.3 Obligations of the Customer

3.3.1 Switched Access Service Requirement

The Switched Access Service associated with Carrier Common Line Access shall be ordered by the Customer under other sections of this tariff.

3.3.2 Supervision

The Customer facilities at the premises of the ordering Customer shall provide the necessary on-hook and off-hook supervision.

3. Carrier Common Line Access Service (Cont'd)

3.4 Determination of Usage Subject to Carrier Common Line Access Charges

Except as set forth herein, all Switched Access Service provided to the Customer will be subject to Carrier Common Line Access charges.

3.4.1 Determination of Jurisdiction

When the Customer reports interstate and intrastate use of Switched Access Service, the associated Carrier Common Line Access used by the Customer for both interstate and intrastate will be apportioned as set forth in Section 3.7.

3.4.2 Local Exchange Access and Enhanced Services Exemption

When access to the local exchange is required to provide a Customer service (e.g., MTS-type, telex, Data, etc.) that uses resold IC's private line service, Switched Access Service Rates and Regulations, as set forth in Section 6 will apply except when such access to the local exchange is required for the provision of an enhanced service. Carrier Common Line Access rates and charges apply as set forth in Section 3.8.

3.5 Resold Services

3.5.1 Scope

Where the Customer is reselling MTS and/or MTS-type service(s) on which the Carrier Common Line and Switched Access charges have been assessed, the Customer will obtain Feature Groups A, B, C or D Switched Access Service as set forth in Section 6 for originating and/or terminating access in the local exchange. Such access group arrangements whether single trunks or trunk groups will have Carrier Common Line Access Charges applied as set forth in Section 3.8.

Material previously on this page is no longer offered and has been deleted. (D)

Material previously on this page is no longer offered and has been deleted. (D)

Material previously on this page is no longer offered and has been deleted. (D)

Material previously on this page is no longer offered and has been deleted. (D)

3. Carrier Common Line Access Service (Cont'd)

3.7 Rate Regulations

3.7.1 Billing of Charges

Unless otherwise specified in Section 3.7.4, the Carrier Common Line Access Charges will be billed to each Switched Access Service provided under this tariff in accordance with the regulations as set forth in Sections 2.4 and 3.7.5.

3.7.2 Measuring and Recording of Call Detail

When Access Minutes are used to determine Carrier Common Line charges, they will be accumulated using call detail recorded by Telephone Company equipment except as set forth in Section 3.7.3. The Telephone Company measuring and recording equipment except as set forth in Section 3.7.3 will be associated with end office or local tandem switching equipment and will record originating Access Minutes and terminating Access Minutes where answer supervision is received. The accumulated Access Minutes will be summed on a line by line basis, by line group or end office, whichever type of account is used by the Telephone Company, for each Customer and then rounded to the nearest minute.

3.7.3 Unmeasured Feature Group B Usage

When Carrier Common Line Access is provided in association with Feature Groups A or B Switched Access Service in Telephone Company offices that are not equipped for measurement capabilities, assumed average intrastate Access Minutes will be used to determine Carrier Common Line Access charges. The assumed Access Minutes are as set forth in Section 6.7.6.

3.7.4 Percent Interstate Use (PIU)

When the Customer reports interstate and intrastate use of Switched Access Service, the Carrier Common Line Access Access Minutes will be adjusted as follows. The Carrier Common Line Access Minutes, developed by the Telephone Company, will be multiplied by the percentages reported by the Customer as set forth in Section 2.3.10. The result will be used to determine the Carrier Common Line Charges as set forth in Section 3.7.5.

3. Carrier Common Line Access Service (Cont'd)

3.7 Rate Regulations (Cont'd)
3.7.5 Determination of Charges

After the adjustments as set forth in Section 3.7.4 have been applied, when necessary, to the Carrier Common Line Access Minutes, the charges for the involved Customer account will be determined as follows:

(A) The Access Minutes for all Switched Access Service subject to Carrier Common Line charges will be multiplied by the per minute rate as set forth in Section 3.8 to determine the charges.

(B) The Terminating Switched Access per minute charges specified in 3.8(A) apply to all non-800 Access terminating Access Minutes of use. The Terminating Switched Access per minute charges specified in Section 3.8(A) also apply to all terminating 800 Access Minutes of use which terminate on a common line. The number of such minutes will be computed using reports furnished by the Customer as specified in Section 2.3.10.

(C) The Terminating 800 Access Service per minute charge(s) as specified in 3.8(B), apply to all 800 terminating usage which terminates in a WATS Access Line Service. The number of such minutes will be computed using reports furnished by the Customer as specified in Section 2.3.10.

(D) The Originating Switched Access per minute charge(s) set forth in Section 3.8(A), apply to all non-800 originating Access Minutes of use less those 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.

(E) The Originating 800-specific Access per minute charge(s) set forth in Section 3.8(B) apply to all originating Access Minutes of use associated with calls placed to 800 numbers and to 800-Type services (e.g. 3A Paging, INFOPATH 950, 8XX, 888, etc.). The Originating 800-specific Access per minute charge(s) also apply to all originating usage which terminates in WATS Access Line Service. The number of such minutes will be computed using reports furnished by the Customer as set forth in Section 2.3.10. (C)

ACCESS SERVICE

3. **CARRIER COMMON LINE ACCESS SERVICE** (Continued)

3.8 Rates and Charges

		Rate	
(A)	Switched Access Service		
	-Terminating, per access minute	$0.000000	
	-Originating, per access minute	$0.010000	
(B)	800 Access Service		
	-Terminating, per access minute	$0.000000	(R)
	-Originating, per access minute	$0.000000	

4. RESERVED FOR FUTURE USE

ACCESS TARIFF

5. ACCESS ORDERING

5.1 General

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

An Access Order is an order to provide the Customer with Switched or Special Access or Access Related Service or to provide changes to existing services.

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

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

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

5.1.1 Service Installation

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

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

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

Access Services will be installed during Telephone Company business days. If a customer requests that installation be done outside of scheduled work hours, and the Telephone Company agrees to this request, the customer will be subject to applicable Additonal Labor Charges as set forth in 13.4.2 following.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.1 General (Continued)

5.1.2 Expedited Orders

When placing an Access Order, a Customer may request a service date that is prior to the applicable service date. Additionally, a Customer may also request an earlier service date on a pending Access Order. In this case, an Access Order modification as set forth in 5.4 would be required. If the Telephone Company determines that the service can be provided on the requested date and that additional labor cost or extraordinary costs are required to meet the requested service date, the Customer will be notified and will be provided with an estimate of the additional charges involved. Charges will be billed at actual cost, not to exceed 10 percent over estimated charges. Such additional charges will be determined and billed to the Customer as explained following.

To calculate the additional labor charges, the Telephone Company will, upon authorization from the customer to incur the additional labor charges, keep track of the additional labor hours used to meet the request of the customer and will bill the Customer at the applicable Additional Labor charges as set forth in 13.4.2.

When the request for expediting occurs subsequent to the issuance of the Access Order, a Service Date Change Charge as set forth in 5.6.1 (B) following also applies.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.1 General (Continued)

5.1.3 Selection of Facilities for Access Orders

The option to request a specific transmission path or channel is not provided except for High Capacity Facilities Special Access, or as provided for under Special Facilities Routing as set forth in Section 11.

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

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements

5.2.1 Switched Access Service

(A) Feature Group A

Orders for Feature Group A Switched Access Service shall be in lines.

When placing an order for Feature Group A Switched Access Service, the customer shall provide the following information in addition to that set forth in 5.1 preceding:

- The number of lines and the first point of switching (i.e., Dial Tone Office);
- Optional Features;
- Whether the Off-hook Supervisory Signaling is provided by the Customer's equipment before the called party answers, or is forwarded by the Customer's equipment when the called party answers;
- Lines to be provided as single lines;
- Lines to be arranged in multiline hunt group arrangements;
- Directionality (1-way, 2-way, etc.);
- A projected Percentage of Interstate Use (PIU) as set forth in 2.3.11 preceding; and
- The Interexchange Carrier to which the service is connected or, in the alternative, specify the means by which the FGS access communications are transported.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.1 Switched Access Service (Continued)

(B) Feature Group B

Order for Feature Group B Switched Access Service shall be in trunks.

When placing an order for Feature Group B Service, the Customer shall provide, the following information in addition to that set forth in 5.1 preceding:

- The number of trunks;
- The end office, except when FGB is provided through a centralized equal access arrangement, when direct routing is desired;
- The access tandem office when tandem routing is desired;
- Optional Features;
- Trunks to be provided as single trunks;
- Trunks to be arranged in trunk group arrangements;
- Directionality (1-way, 2-way, etc.);
- A projected Percentage of Intrastate Use as set forth in 2.3.11 preceding;
- The Interexchange Carrier to which the service is connected or, in the alternative, specify the means by which the FGB access communications are transported;
- The access code dialing arrangement (i.e., a uniform access code of 950-XXXX); and
- For Feature Group B switched access service to a Wireless Switching Center directly interconnected to a Telephone Company access tandem office, the customer shall provide information to the Telephone Company indicating the NXX code(s) to be accessed.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.1 Switched Access Service (Continued)

(C) Feature Group C and Feature Group D

When placing an order for Feature Group C and D Switched Access Service, the Customer shall provide:

- The number of BHMC from the customer designated premises to the end office by Feature Group and by type of BHMC, or
- The number of trunks desired between customer designated premises and an entry switch.
- Optional Features;
- A projected percentage of intrastate use as set forth in 2.3.11 preceding; and
- For Feature Group D switched access service to a Wireless Switching Center (WSC) directly interconnected to a Telephone Company access tandem office, the customer shall provide information to the Telephone Company indicating the NXX code(s) to be accessed.

When BHMC information is provided it is used to determine the number of transmission paths as set forth in 6.4 following.

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

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.1 Switched Access Service (Continued)

(C) Feature Group C and Feature Group D (Continued)

Customers other than MTS/WATS providers may, at their option, order FGD by specifying the number of trunks desired between customer designated premises and an end office, access tandem or operator services location. When ordering by trunk quantities rather than BHMC quantities to an access tandem, the customer must also provide the Telephone Company an estimate of the amount of traffic it will generate to and/or from each end office subtending the access tandem to assist the Telephone Company in its own efforts to project further facility requirements.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.2 Special Access Service

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

- the customer designated premises or hubs involved;
- type of service (e.g., Voice Grade, High Capacity, etc.);
- the channel interface(s);
- technical specifications package;
- options desired; and
- for multipoint services, the channel interface at each customer designated premises may, at the request of the customer, be different but all such interfaces shall be compatible.

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

When ordering bridging and/or multiplexing, the Customer must specify that telephone company hub(s) from which they desire service. The Customer must specify only those hubs that provide the type of service offered and interconnect with the wire center(s) from which the Customer requires service. The Wire Center section of NECA Tariff FCC No. 4 identifies hub types (e.g., Digital Data, High Capacity Multiplexing, etc.) and hub levels (i.e., Hub, Terminus Hub, Intermediate Hub and Super-Intermediate Hub). Additionally, the Subtending section of NECA Tariff FCC No. 4 identifies wire centers and the Intermediate and/or Super-Intermediate Hubs with which they interconnect.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.3 WATS or WATS-Type Services

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

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

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

5.2.4 Mixed Use Facilities – Switched and Special Access

Mixed use is the provision of both Switched and Special Access Services over the same High Capacity facilities. Mixed use facilities to a hub will be ordered and provided as Special Access Service. Where mixed use is employed, individual services utilizing these facilities must be ordered either as Switched Access Service or Special Access Service as further elaborated and set forth in 7.2.7. When placing the order for the individual service(s), the Customer must specify a channel assignment for each service ordered.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.2 Ordering Requirements (Continued)

5.2.5 Miscellaneous Services

Testing Service, Additional Labor, Telecommunications Service Priority and Special Facilities Routing shall be ordered with an Access Order or may subsequently be added to a pending order at any time up to and including the service date for the access service. When miscellaneous services are added to a pending order a service date change may be required. When a service date change is required, the service date change charge as set forth in 5.6.1(B) following will apply. When miscellaneous services are added to a pending order, charges for a design change as set forth in 5.6.1(C) following will apply when an engineering review is required. If both the service date change an an engineering review are required, both the Service Date Change Charge and the Design Change Charge will apply as set forth in 5.6.1(B) and 5.6.1(C) following.

The rates and charges for these services, as set forth in this other sections of this tariff, will apply in addition to the ordering charges set forth in this secion and the rates and charges for the Access Service with which they are associated.

Additional Engineering is not an ordering option, but will be applied to an Access Order when the Telephone Company determines that Additional Engineering is necessary to accommodate a customer request. Additional Engineering will only be required as set forth in 13.1 following. When it is required, the customer will be so notified and will be furnished with a written statement setting forth the justification for the Additonal 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%.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.3 Access Orders For Services Provided By More Than One Telephone 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 NXX 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 2.4.7 preceding, to be used by the Telephone Companies involved in providing the Access Service. The Telephone Company will notify the customer which of the ordering procedures will apply.

5.3.1 Non Meet Point Billing Ordering – FGA

The Telephone Company receiving the order from the customer will arrange to provide the service and bill the customer as set forth in 2.4.7(A)(1). The customer will place the order with the Telephone Company as follows:

For FGA Switched Access Service 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 the dial tone office.

When the first point of switching is not in the same Telephone Company's territory as the Interexchange Carrier premises, the customer must supply a copy of the order to the Telephone Company in whose territory the Interexchange Carrier premises is located and any other Telephone Company(s) involved in providing the service. When service is provided through a centralized equal access provider, the customer must supply a copy of the order to that provider.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.3 Access Orders For Services Provided By More Than One Telephone Company (Continued)

5.3.2 Meet Point Billing Ordering

Each Telephone Company will provide its portion of the Access Service within its operating territory to an interconnection point(s) with the other Telephone Company(s). Billing Percentages will be determined by the Telephone Companies involved in providing the Access Service and listed in NECA Tariff FCC No. 4. Each Telephone Company will bill the Customer for its portion of the service as set forth in 2.4.7(A)(2). All other appropriate charges in each Telephone Company tariff are applicable.

For the service(s) ordered as set forth following, 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. Additionally, when service is provided through a centralized equal access provider, the customer must supply a copy of that order to that provider.

(A) For Feature Group 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 (e.e., FGA-dial tone office, FGB-access tandem or end office). The Telephone Company will designate the first point(s) of switching for FGB Services where the Telephone Company elects to provide equal acess through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NECA Tariff FCC No. 4.

(B) For Feature Group 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 other than MTS/WATS providers 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 supply a copy of the order to each additional Telephone Company subtending the access tandem.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.3 Access Orders For Services Provided By More Than One Telephone Company (Continued)

5.3.2 Meet Point Billing Ordering (Continued)

(C) Customers ordering Special Access Service to be interconnected with Switched Acccess Services at Telephone Company designated WATS Serving Offices for the provision of WATS or WATS-type Services must place an order with each Telephone Company in whose territory the end office and the WATS Service are located, if they are not collocated.

(D) Except for Special Access Service as set forth in (C) above or as set forth in (E) below, the customer may place the order for a Special Access Service with either Exchange Telephone Company.

(E) For Special Access Service involving a hub(s) the customer must place the order with the Telephone Company(s) in whose territory the hub(s) is located.

5.4 Charges Associated with Access Ordering

5.4.1 Access Order Charge

The Access Order Charge is applied to all Customer requests for new Special and Switched Access Service. In addition, the Access Order Charge is applicable to Customer requests for additions, changes or rearrangements to existing Special and Switched Access Service with the following exceptions:

The Access Order Charge does not apply:

- When a Service Date Change Charge is applicable;
- When a Design Change Charge is applicable;
- To administrative changes as set forth in 6.7.1(C) and 7.2.2(B)(3);
- When a change to a pending order does not result in the cancellation of the pending order and the issuance of a new order;
- When a Miscellaneous Service Order Charge is applicable;
- When a PIC Change Charge is applicable;
- When a Telephone Company initiated network reconfiguration requires a Customer's existing access service to be reconfigured.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.4 Charges Associated with Access Ordering (Continued)

5.4.1 Access Order Charge (Continued)

The Access Order Charge will be applied on a per order basis to each order received by the Telephone Company or copy of an order received by the Telephone Company pursuant to 5.3.1 preceding and 5.3.2 preceding and is in addition to other applicable charges as set forth in this and other sections of this tariff.

The Access Order Charge will be applied on a per order basis for any change, rearrangement or addition to the delivery of signaling to an existing STP Port.

5.4.2 Miscellaneous Service Order Charge

A Miscellaneous Service Order Charge, as set forth in 5.6.1(D), applies to any service, or combination of services, ordered simultaneously from Section 13 of this Tariff for which a service order is not already pending. The Miscellaneous Service Order Charge is an administrative charge designed to compensate for the expenses associated with service order issuance.

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

- Overtime Repair (13.2.2);
- Standby Repair (13.2.3);
- Testing and Maintenance with Other Telephone Companies (13.2.4);
- Other Labor (13.2.6);
- Maintenance of Service (13.3.2).

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

- Telecommunications Service Priority (13.3.3)

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.4 Charges Associated with Access Ordering (Continued)

5.4.2 Miscellaneous Service Order Charge (Continued)

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

- Additional Engineering (13.1);
- Overtime Installation (13.2.1);
- Standby Acceptance Testing (13.2.3);
- Testing and Maintenance with Other Telephone Companies when in conjunction with Acceptance Testing (13.2.4);
- Additional Cooperative Acceptance Testing (13.3.1(A)(1) and 13.3.1(B)(1)).

5.4.3 Access Order Change Charges

Access Order changes involve service date changes and design changes. The Customer may request a change of its Access Order prior to the service date. The Telephone Company will make every effort to accommodate a requested change when it is able to do so with the normal work force assigned to complete such an order within normal business hours. If the change cannot be made with the normal work force during normal business hours, the Telephone Company will notify the Customer. If the Customer still desires the Access Order change, the Telephone Company will schedule a new service date as set forth in 5.1.1 preceding. All charges for Access Order changes as set forth in 5.61(B) and (C) will apply on a per occurrence basis.

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

If order changes are necessary to satisfy the transmission performance for a Special Acess Service ordered by a Customer, these changes will be made without order change charges being incurred by the Customer.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.4 Charges Associated with Access Ordering (Continued)

5.4.3 Access Order Change Charges (Continued)

(A) Service Date Change

The customer may request a change of service date on a pending Access Order prior to the service date. A change of service date is a change of the schedule service date by the Customer to either an earlier date or a later date which does not exceed 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 customer, the service date will be changed and the Service Date Change Charge, as set forth in 5.6.1(B), will be applied to the order.

If the service date is changed to an earlier date, and the Telephone Company determines additional labor or extraordinary costs are necessary to meet the earlier service date requested by the Customer, the Customer will be notified by the Telephone Company that Expedited Order Charges as set forth in 5.1.2 preceding apply. Such charges will apply in addition to the Service Date Change Charge.

If the requested service date exceeds 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 5.5.3. A new Access Order with a new service date will be issued. The Service Date Change Charge will not apply, however, the Access Order Charge will apply to the new order.

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

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.4 Charges Associated with Access Ordering (Continued)

5.4.3 Access Order Change Charges (Continued)

(B) Design Change

The Customer may request a design change to the service ordered prior to the requested service date. A design change is any change to an Access Order which requires engineering review. An engineering review is a review by Telephone Company personnel, of the service ordered and the requested changes to determine what changes in the design, if any, are necessary to meet the changes requested by the Customer. Design changes include such things as the addition or deletion of optional features or functions or a change in the type of Transport Termination (Switched Access only), type of channel interface, type of Interface Group or technical specification package. Design changes do not include a change of customer designated premises, first point of switching, Feature Group type or Special Access Service channel type. Changes of this nature will require the issuance of a new order and the cancellation of the original order with appropriate cancellation charges applied.

The Telephone Company will review the requested change, notify the Customer whether the change is a design change, if the change can be accommodated and if a new service date is required. If the Customer authorized the Telephone Company to proceed with with the design change, a Design Change Charge as set forth in 5.6.1(C), will apply in addition to the charge for Additional Engineering as set forth in 13.4.1. If a change of service date is required, the Service Date Change Charge as set forth in 5.6.1(B) will also apply. The Access Order Charge as specified in 5.6.1(A) does not apply.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.5 Minimum Periods and Cancellations

5.5.1 Minimum Periods

Switched Access Service has no minimum period. The minimum period for which all other Access Service is provided and for which charges are applicable, is one month.

5.5.2 Development of Minimum Period Charges

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

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

(A) For Switched Access Service, the charge for a month or fraction thereof is equal to the applicable recurring charges plus any non-recurring and/or special construction charge(s) that may be due.

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

5.5.3 Cancellation of an Access Order

(A) A customer may cancel an Access Order for the installation of service on any date prior to the service date. The cancellation date is the date the Telephone Company receives written or verbal notice from the Customer that the order is to be canceled. The verbal notice must be followed by written confirmation within 10 days. If a Customer or Customer's end user is unable to accept Access Service within 30 calendar days after the original service date, the Customer has the choice of the following options:

- The Access Order shall be canceled and charges set forth in (B) 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.

ACCESS TARIFF

5. **ACCESS ORDERING** (Continued)

5.5 Minimum Periods and Cancellations (Continued)

5.5.3 Cancellation of an Access Order (Continued)

(B) When a customer cancels an Access Order for the installation of service, a Cancellation Charge will apply as follows:

(1) Installation of Switched or Special Access Service facilities is considered to have started when the Telephone Company incurs any cost in connection therewith or in preparation thereof which would not otherwise have been incurred.

(2) Where the Customer cancels an Access Order prior to the start of installation of access facilities, no charges shall apply.

(3) Where installation of access facilities has been started prior to the cancellation, the charges specified in (a) or (b) following, whichever is lower, shall apply.

(a) A charge equal to the costs incurred in such installation, less estimated net salvage. Such costs include the nonrecoverable cost of equipment and material ordered, provided or used, plus the nonrecoverable cost of installation and removal including the costs of engineering, labor, supervision, transportation, rights-of-way and other associated costs;

(b) The minimum period charges for Switched or Special Acess Service ordered by the Customer, as set forth in 5.5.2 preceding.

(C) When a customer cancels an order for the discontinuance of service, no charges apply for the cancellation.

(D) If the Telephone Company misses a service date by more than 30 days and such delay is not requested or caused by the Customer (excluding those circumstances where the date is missed due to acts of God, governmental requirements, work stoppages and civil commotions), the Customer may cancel the Access Order without incurring cancellation charges.

5.5.4 Partial Cancellation Charge

Any decrease in the number of ordered Special Access Service channels or Switched Access Service lines, trunks or busy hour minutes of capacity will be treated as a partial cancellation and charges will be determined as set forth in 5.5.3(B) preceding.

ACCESS TARIFF

5. Access Ordering (Continued)

5.6 Rates and Charges

5.6.1 Access Ordering

		Charge	Tariff Section Reference
(A)	Access Order Charge, Per Order	$86.00	
(B)	Service Date Change Charge		
	A Service Date Change Charge will apply, on a per order occurrence basis, for each service date changed. The Access Order Charge as specified above does not apply. The applicable charge is:		
	Service Date Change Charge, Per Order	$60.00	
(C)	Design Change Charge		
	The Design Change Charge will apply on a per order per occurrence basis, for each order requiring design change. The applicable charge is:		
	Design Change Charge, Per Order	$84.00	
(D)	Miscellaneous Service Order Charge		
	Per Occurrence	$123.00	

6. Switched Access Service

6.1 General

The Switched Access Services provided under this tariff are as follows:

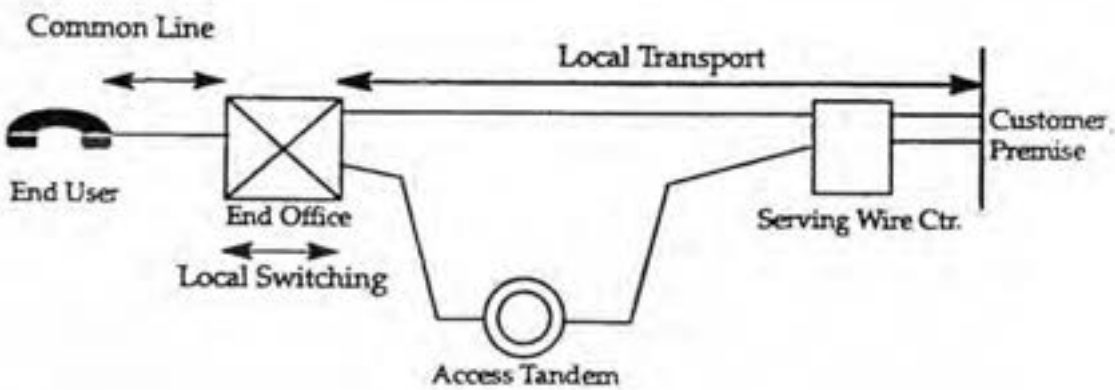
(a) originating, terminating or two-way Feature Groups A, B, C & D and (b) 800 Access Service. In addition to regulations which are contained within this Tariff, other regulations pertinent to these services are the same as those specified in Section 6 of NECA Tariff F.C.C. No. 5, as appropriate, unless otherwise stated in this Tariff. Traffic that is described as Feature Group 2A in New England Telephone and Telegraph Company Tariff NHPUC No. 79 (Access Service) and which is connected to Wireless Carriers in New England Telephone and Telegraph exchanges, is considered to be Feature Group C or D, as applicable, in this Tariff. (N) (N)

6.1.1 Rate Categories

There are three rate elements categories which apply to Switched Access Service:

- Local Transport
- Local Switching
- Carrier Common Line

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:



ACCESS TARIFF

6. SWITCHED ACCESS SERVICE (Continued)

6.1 General (Continued)

6.1.1 Rate Categories (Continued)

(A) Local Transport (T)

The Local Transport rate category provides the transmission and tandem switching facilities between the customer's premises and the end office switch(es) where the customer's traffic is switched to originate or terminate the customer's communications. For purposes of determining Local Transport mileage, distance will be measured from the wire center that normally serves the customer's premises to the end office switch(es). Local Transport mileage measurement rules are set forth in 6.7.11 following and in this section.

Local Transport is a two-way voice frequency transmission path composed of facilities determined by the Telephone Company. The two-way voice frequency transmission path permits the transport of calls in the originating direction (from the end user end office switch to the customer's premises) and in the terminating direction (from the customer's 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.

Local Transport is comprised of an Entrance Facility, Direct-Trunked Transport, Tandem-Switched Transport, and Multiplexing. Descriptions of the Local Transport components are provided in (1) through (4) following.

The Telephone Company will work cooperatively with the customer in determining (1) whether the service is to be routed directly to an end office switch or through an access tandem switch, and (2) the directionality of the service.

Local Transport is provided at the rates and charges as set forth in 6.8.1 following. The application of these rates with respect to individual Local Access Service arrangements is set forth in 6.7.1 (D) following. (T)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.1 General (Continued)

6.1.1 Rate Categories (Continued)

(A) Local Transport (Continued) (T)

The number of Switched Transport transmission paths and terminations provided is based on the customer's order and is determined by the Telephone Company as set forth in 6.5 following.

(1) Entrance Facility

An Entrance Facility provides the communication path between a customer's premises and the Telephone Company's serving wire center for that premises. The Entrance Facility is dedicated to the use of a single customer and is available for use with all line side and trunk side Switched Access services. An Entrance Facility is provided even if the customer's premises and the serving wire center are located in the same building. The Entrance Facility rate element includes the transmission medium of the facility as well as certain circuit equipment that is used at the ends of the facility and employed to provision the channels on the transmission medium. The Entrance Facility rate element also includes an Interface Group, which defines the technical characteristics and types of signaling capability associated with the connection (i.e., voice grade, DS1 or DS3) that comprises the Entrance Facility. The following types of Entrance Facility are available:

(a) Voice Grade Entrance Facility

Voice Grade Entrance Facility is provided in quantities of channels. Each Voice Grade channel provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. When a single Voice Grade channel is ordered to be terminated at a customer's premises where the premises is all-digital and requires a minimum digital interface level of 1.544 Mbps, the Telephone Company will provide the required interface where facilities are available.

(b) DS1 Entrance Facility

DS1 Entrance Facility provides 24 channels for the transmission of nominal 56 kbps or 1.544 Mbps isochronous serial data. The actual bit rate and framing format is a function of the channel interface selected by the customer. (T)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.1 General (Continued)

6.1.3 Rate Categories (Continued)

(A) Local Transport (Continued) (T)

(1) Entrance Facility (Continued)

(c) DS3 Entrance Facility

DS3 Entrance Facility provides 28 DS1s or 672 channels for the transmission of nominal 44.736 Mbps isochronous serial data. With DS3, an electrical interface will be installed at the customer's premises which provides an electrical signal with a transmission speed of 44.736 Mbps per channel. The minimum period for which a DS3 Entrance Facility is provided is twelve months.

(2) Direct-Trunked Transport

Direct-Trunked Transport provides the communication path between the serving wire center of a customer's premises and an end office. Direct-Trunked Transport is dedicated to the use of a single customer and does not require switching at an access tandem. Direct-Trunked Transport is available for use with all line side and trunk side Switched Access services.

Direct-Trunked Transport is not available to end offices that lack recording and measuring capabilities needed to provide Direct-Trunked Transport.

Direct-Trunked Transport provides for the transmission facilities between the Telephone Company's serving wire center and an end office when such facilities are not switched through an access tandem. This includes the transmission medium itself as well as certain circuit equipment that is used at the ends of the interoffice links and employed to provision the channels on the transitional medium and circuit equipment used within the network to manage the circuits at intermediate locations.

Direct-Trunked Transport also provides for the transmission facilities between the Telephone Company's serving wire center and a hub that interconnects facilities for both Tandem-Switched Transmission and Direct-Trunked Transport. (T)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.1 General (Continued)

6.1.3 Rate Categories (Continued)

(A) Local Transport (Continued) (T)

(2) Direct-Trunked Transport (Continued)

Direct-Trunked Transport rates consist of a Direct-Trunked Facility rate specified in 6.8.1 following 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, tandem, and the serving wire center). The minimum period for which a High Capacity DS3 Direct Transport is provided is twelve months.

(3) Tandem-Switched Transport

Tandem-Switched Transport provides the communication path between the serving wire center of a customer's premises and an end office, and includes tandem switching functions. Tandem-Switched Transport also includes circuits dedicated to the use of a single customer (from the serving wire center to the access tandem) and circuits provided for the common use of all customers who have requested tandem switching (from the access tandem to the end office). Tandem-Switched Transport is available for use with all trunk side Switched Access services. Tandem-Switched Transport is not available for use with line side Switched Access services.

Tandem-Switched Transport provides for the transmission facilities between the Telephone Company's serving wire center and an end office that is switched through a tandem. Tandem-Switched Transport is composed of three sub elements:

(a) Tandem-Switched Transmission, which provides for the transmission facilities from the Telephone company's serving wire center to an access tandem switch and from the Telephone Company's access tandem switch to an end office. This includes the transmission medium itself as well as certain circuit equipment that is used at the ends of the interoffice links and employed to derive the channels on the transmission medium, and circuit equipment used within the network to manage the circuits at intermediate locations.

The Tandem-Switched Facility rate specified in 6.8.1 following is applied on a per access minute per mile basis for all originating and terminating minutes of use routed over the facility. The Tandem-Switched Termination rate specified in 6.8.1 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. (T)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.1 General (Continued)

6.1.3 Rate Categories (Continued)

(A) Local Transport (Continued)

(3) Tandem-Switched Transport (Continued)

(b) Tandem Switching, which provides for use of the Telephone Company's access tandem.

Local Transport is provided at the rates and charges as set forth in 6.8.1 following. The application of these rates with respect to individual Switched Access Service Arrangements is set forth in 6.7.1 (D) following.

The number of Switched Transport transmission paths and terminations provided is based on the customer's order and is determined by the Telephone Company as set forth in 6.5 following.

(c) For originating toll free minutes only, a Joint Tandem Switched Transport rate applies in lieu of the Tandem Switching, Tandem Switched Facility, and Tandem Switched Termination rates and is only billed by the tandem company that performs the tandem switching function. (N) (N)

(4) Multiplexing

Multiplexing provides for arrangements to convert a single higher capacity or bandwidth circuit for bulk transport to several lower capacity or bandwidth circuits. Multiplexing is only available at Telephone Company designated Hubs arranged for multiplexing or at the access tandem trunk on the serving wire center side of the access tandem. All types of multiplexing may not be available at each Hub location.

Listed below are the multiplexing arrangements offered with switched access.

- DS1 to Voice

An arrangement that multiplexes twenty-four voice grade circuits to single DS1 digital circuit at a rate of 1.544 Mbps, or multiplexes a single DS1 digital circuit at a rate of 1.544 Mbps to twenty-four voice grade circuits.

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued) (N)

6.1 General (Continued)

6.1.3 Rate Categories (Continued)

(A) Local Transport (Continued)

(4) Multiplexing (continued)

- DS3 to DS1

An arrangement that multiplexes twenty-eight DS1 digital circuits to a single DS3 digital circuit at a rate of 44.736 Mbps, or multiplexes a single DS3 digital circuit at a rate of 44.736 Mbps to twenty-eight DS1 digital circuits.

(5) Interface Groups

Ten Interface Groups are provided for terminating the Local Transport at the customer's designated premises. Technical specifications concerning the available interface groups are set forth in NECA Tariff F.C.C. No. 5, Section 6.1.3.

(6) Nonchargeable Optional Features

Where transmission facilities permit, the Telephone Company will, at the option of the customer, provide the following optional features in association with Local Transport.

(a) Supervisory Signaling

Where transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability, the customer may order an optional supervisory signaling arrangement for each transmission path provided as set forth in NECA Tariff F.C.C. No. 5, Section 15.1.1 (E).

(b) Customer Specified Entry Switch Receive Level

This option allows the customer to specify the receive transmission level at the first point of switching. The range of transmission levels which may be specified is described in Technical Reference PUB 62500. The feature is available with interface Groups 2 through 10 for Feature Groups A and B.

(c) Customer Specified of Local Transport Termination

This option allows the customer to specify, for Feature Group B routed directly to an end office or access tandem, a four-wire termination of the Local Transport at the entry switch in lieu of a Telephone Company selected two-wire. (N)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.1 General (Continued)

6.1.1 Rate Categories (Continued)

(D)

(D)

(B) Local Switching

The Local Switching rate category provides for the use of common lines and the local end office switching and end user termination functions necessary to complete the transmission of Switched Access communications to the end users served by the local end office. The Local Switching functions are Local Access, Line Termination and Intercept. They are described as follows:

(1) Local Access

The Local Access function provides for the use of end office switching equipment.

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Rate Categories (Cont'd)

(B) Local Switching (Cont'd)

(1) Local Access (Cont'd)

There are two types of Local Access functions, i.e., Common Switching and Transport Termination. These are described as follows:

(a) Common Switching

Common Switching provides the local end office switching functions associated with the various access (i.e., Feature Group) switching arrangements. The Common Switching arrangements provided for originating, terminating or two-way Feature Groups A, B, C and D are as set forth in Section 6.2.

Included as part of Common Switching are optional features which the Customer can order to meet the Customer's specific communications requirements. Optional features appropriate to Switched Access Services offered under this Tariff are as set forth in Section 6.3.

(b) Transport Termination

Transport Termination provides for the line or trunk side arrangements which terminate the Local Transport facilities. Included as part of Transport Termination are various nonchargeable optional termination arrangements. These optional terminating arrangements are as set forth in Section 6.3.

For all Feature Groups, the Local Transport Termination rate is applied at the end office.

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Rate Categories (Cont'd)

(B) Local Switching (Cont'd)
(1) Local Access (Cont'd)
(c) Optional Features

The Telephone Company will provide optional features for intrastate Switched Access Service in accordance with the terms, conditions, and rates set forth or referenced in NECA TARIFF F.C.C. No. 5, Sections 3 and 6. (T) (T)

(2) Line Termination

The Line Termination function provides the terminations for the end user lines terminating in the local end office.

(3) Intercept

The Intercept function provides for the termination of a call at an Intercept operator or recording. The operator or recording tells a caller why a call, as dialed, could not be completed, and if possible, provides the correct number.

6.1.2 Special Facilities Routing

Any 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 set forth in Section 11.

6.1.3 Design Layout Report

At the request of the Customer, the Telephone Company will provide to the Customer the makeup of the facilities and services provided from the Customer's premises to the first point of switching. This information will be provided in the form of a Design Layout Report. The Design Layout Report will be provided to the Customer at no charge, and will be reissued or updated whenever these facilities are materially changed.

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.4 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: loss, C-message noise, 3-tone slope, d.c. continuity and operational signaling. When the Local Transport is provided with Interface Groups 2, 6, 7 and 9 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) may also be tested.

6.1.5 Ordering Options and Conditions

When ordered under this Tariff. Switched Access Service(s) is provided to the Customer under the same Order Options and Conditions that are set forth or referenced in NECA TARIFF F.C.C. No. 5, Section 5. (T) (T)

6.2 Provision and Description of Switched Access Feature Groups

Regulations pertaining to the provision of Switched Access Feature Groups provided under this Tariff are the same as those set forth in NECA TARIFF F.C.C. No. 5, Sections 3, 5, and 6. In addition a WATS Access Line Service, may at the option of the Customer be provided for use with Feature Groups B, C and D. (T)

6.3 Local Switching Optional Features

The Telephone Company will provide optional features for intrastate Switched Access Service in accordance with the terms, conditions, and rates set forth or referenced in NECA TARIFF F.C.C. No. 5, Sections 3 and 6. (T) (T)

6.4 Transmission Specifications

The available transmission specifications for Switched Access Service Arrangements offered under this Tariff are the same as those stated in NECA TARIFF F.C.C. No. 5, Section 6.

6. Switched Access Service (Cont'd)

6.5 Obligations of the Telephone Company

In addition to the obligations of the Telephone Company as set forth in Section 2, the Telephone Company has certain other obligations pertaining only to the provision of the Switched Access Service Arrangements offered under this Tariff. Those obligations are the same as those set forth in NECA TARIFF F.C.C. No. 5, Section 6.

6.6 Obligations of the Customer

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

6.6.1 Report Requirements

(A) Jurisdictional Reports

Obligations of the Customer pertaining to Jurisdictional Reports are as set forth in Section 2.

(B) Code Screening Reports

When a Customer orders service class routing, it will 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.

(C) Service Access Code Reports

When a Customer orders Access Service, it will report the appropriate Service Access Codes which will be instituted in each access tandem or end office switch at which the Customer identification function is performed. The Customer will update the report each time a change occurs, i.e., when a new code is added or an existing code is deleted.

6. Switched Access Service (Cont'd)

6.6 Obligations of the Customer (Cont'd)

6.6.2 Supervisory Signaling

The Customer's facilities will provide the necessary on-hook, off-hook, answer and disconnect supervision.

6.6.3 Trunk Group Measurement Reports

With the agreement of the Customer, trunk group data in the form of usage in CCS, peg count and overflow for its end of all access trunk groups, where technologically feasible, will be made available to the Telephone Company. These data will be used to monitor trunk group utilization and service performance and will be based on previously arranged intervals and format.

6.6.4 Design of Switched Access Services

When a Customer orders Switched Access Service on a per trunk basis, the Customer will take reasonable steps to assure that sufficient access services have been ordered to handle its traffic.

6.7 Rate Regulations

6.7.1 Description and Application of Rates and Charges

There are three types of rates and charges that apply to Switched Access Service. These are monthly rates, usage rates and nonrecurring charges. Monthly rates and nonrecurring charges are applied as set forth below in (A) and (C).

(A) Monthly Rates

Monthly rates are flat recurring rates that apply each month or fraction thereof that a chargeable optional feature is provided. For billing purposes, each month is considered to have 30 days.

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.7 Rate Regulations (Continued)

6.7.1 Description and Application of Rates and Charges (Continued)

(B) Usage Rates

Usage rates are rates that apply only when a specific rate element is used. These are applied on a per access minute basis or a per call basis. Usage rates are accumulated over a monthly period. Usage rates applied on a per access minute basis are applied differently to the various rate elements as set forth in (D) below.

(C) Nonrecurring Charges

Nonrecurring charges for intrastate Switched Access Service will apply in accordance with the terms, condition, and rates set forth or referenced in NECA Tariff F.C.C. no. 5, Sections 3 and 6.

(D) Application of Rates

(1) Local Switching and Local Transport rates as specified in Section 6.8 are applied to all minutes of use measured as specified in Section 6.7.6. For originating toll free minutes only, a different Local Switching rate is specified in Section 6.8 following. (C) (C)

(2) As specified in the Commission's Order No. 20,77, Switched Access originating and/or terminating charges apply to all intrastate messages which make use of Switched Access subject to this tariff.

6.7.2 Minimum Periods

Switched Access Service and monthly rated optional features are provided for a minimum period of one month.

6.7.3 Reserved For Future Use

6.7.4 Reserved For Future Use

6.7.5 Reserved For Future Use

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.7 Rate Regulations (Continued)

6.7.6 Measuring Access Minutes

Regulations for measuring Access Minutes for originating, terminating or two-way Feature Groups A, B, C and D are the same as those set forth in NECA Tariff F.C.C. No. 5, Section 6.

6.7.7 Network Blocking Charge for Feature Group D

Regulations and rates are the same as those set forth or referenced in NECA Tariff F.C.C. No. 5, Section 6.8.6.

6.7.8 Reserved For Future Use

6.7.9 Reserved For Future Use

6.7.10 Reserved For Future Use

6.7.11 Mileage Measurement

The mileage to be used to determine the rate for Direct-Trunked Transport and Tandem-Switched Transport is calculated based on the airline distance between the end office switch, which may be a Remote Switching Location, where the call carried by Local Transport service originates or terminates and the customer's serving wire center, except as set forth following. Where applicable, The V&H coordinates method is used to determine mileage. This method is set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 for Wire Center Information (V&H coordinates). (T)

If the calculation results in a fraction of a mile, always round up to the next whole mile before applying the rates.

Exceptions to the mileage measurement rules are as follows:

(A) Feature Group A - Originating Usage

Direct-Trunked Transport Mileage for premium and non-premium 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. The mileage measurement will be between the first point of switching (end office switch where the Feature Group A switched dial tone is provided)and the customer's serving wire center for the Switched Access Service provided. (T)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.4 Rate Regulations (Continued)

6.4.5 Mileage Measurement (Continued)

(B) Feature Group A - Terminating Usage (N)

The Local Transport mileage for terminating Feature Group A Switched Access Service will be measured in two segments. 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.

(C) Feature Group B, C, and D - Alternate Traffic Routing

When the Alternate Traffic Routing optional feature is provided with Feature Groups B, C and D, the Local Transport access minutes will be apportioned between the two transmission routes used to provide this feature. Such apportionment will be made using: (1) actual minutes of use if available, (2) standard Telephone Company traffic engineering methodology and will be based on the last trunk CCS desired for the high usage group, as described in 6.1.1 (B)(1)(c) preceding, and the total busy hour of capacity ordered to the end office, when the feature is provided at an end office switch, or to the subtending end offices when the feature is provided at an access tandem switch, or (3) an apportionment mutually agreed to by the Telephone Company and the customer. This apportionment will serve as the basis for Local transport mileage calculation.

(D) Feature Group C - Multiple CDPs

When terminating Feature Group C Switched Access Service is provided from multiple customer 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 capacity ordered for each FGC trunk group. This apportionment will serve as the basis for Local Transport mileage calculation and the customer will be billed accordingly. (N)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.4 Rate Regulations (Continued)

6.4.5 Mileage Measurement (Continued)

(E) Feature Groups A, B, C and D - WATS

Where Feature Groups A, B, C, and D Switched Access Services are connected with Special Access Service at a WATS Serving office, the Telephone Company will measure mileage on an airline mileage basis between:

(1) The WATS Serving Office and the Serving Wire Center for the customer designated premises, or

(2) The Feature Group A or B entry switch and the Serving Wire Center for the customer designated premises.

(F) Feature Groups B, C, and D - Remote Offices

The Local Transport mileage for Feature Group B, C, and D Switched Access Service provided to a Remote Office will be measured in multiple segments.

When the facility 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, and Tandem-Switched Facility mileage will be measured between the Host Office and the Remote Office. The Tandem Switching charge will not apply.

When the facility is directly trunked to a tandem, Direct-Trunked Facility will be measured from the Serving Wire Center to the tandem, Tandem-Switched Facility mileage will be measured from the tandem to the host, and another segment of Tandem-Switched facility will be measured from the host to the remote. The Tandem Switching charge* will be applicable at the tandem. (C)

When service to the remote is ordered as only Tandem-Switched Facility, mileage will be separately measured between the serving wire center and the host and between the host and the end office. The Tandem Switching charge* will be applicable at the Tandem. (C)

* As of July 1, 2021, the Joint Tandem Switched Transport rate element is applied per tandem to originating toll free minutes only, as set forth in 6.6.2 following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements. (N) | (N)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.8 Rates and Charges

6.8.1 Local Transport

	Rate	
- Entrance Facility		
Per Termination		
- Voice Grade Two-Wire	$44.04	(R)
- Voice Grade Four-Wire	$70.47	|
- High Capacity DS1	$214.69	|
- High Capacity DS3	$1,960.24	|
- Synchronous Optical Channel OC3	$1,998.86	|
- Synchronous Optical Channel OC12	$2,134.14	(R)
- Direct Trunked Transport		
- Direct Trunked Facility		
Per Mile		
- Voice Grade	$3.14	(R)
- High Capacity DS1	$14.71	|
- High Capacity DS3	$128.13	|
- Synchronous Optical Channel OC3	$137.16	|
- Synchronous Optical Channel OC12	$172.15	(R)
- Direct Trunked Transport Termination		
Per Termination		
- Voice Grade	$31.52	(R)
- High Capacity DS1	$76.32	|
- High Capacity DS3	$490.05	|
- Synchronous Optical Channel OC3	$510.25	|
- Synchronous Optical Channel OC12	$1,110.96	(R)
Multiplexing		
Per Arrangement		
- DS3 to DS1	$447.12	(R)
- DS1 to Voice	$172.63	(R)

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.8 Rates and Charges (Continued)

6.8.1 Local Transport (Continued)

	Rate	
Tandem Switched Transport		
- Tandem Switched Facility*		
Per Access Minute Per Mile		
-Terminating	$0.000232	
-Originating	$0.000402	
- Tandem Switched Termination*		
Per Access Minute Per Termination		
-Terminating	$0.001207	
-Originating	$0.002090	
- Tandem Switching*		
Per Access Minute Per Tandem		
-Terminating	$0.003045	
-Originating	$0.005272	
- Joint Tandem Switched Transport*		
Per Originating Toll Free Only Access Minute, Per Tandem	$0.001	
Network Blocking Per Blocked Call		
Applies to FGD only	$0.008827	(R)
Residual Interconnection Charges		
Per Originating Minute		
(Non-Toll Free)	$0.003924	
(Toll Free)	$0.000000	
800 Data Base Access Service Queries		
Per Query		
- Basic	$N/A	
- Feature	$N/A	

* The Joint Tandem Switched Transport rate element applies per tandem to originating toll free minutes only in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements as of July 1, 2021.

ACCESS TARIFF

6. **SWITCHED ACCESS SERVICE** (Continued)

6.8 Rates and Charges (Continued)

6.8.2 End Office

(A) Local Switching, Per Access Minute

(Non-Toll Free)		
- Terminating	$0.000000	
- Originating	$0.009651	
(Toll Free)		
- Originating	$0.007782	(R)

(B) Information Surcharge, Per 100 Access Minutes

- Terminating	*
- Originating (Non-Toll Free & Toll Free)	$N/A

(C) Transitional End Office Access Service

Per Terminating Minute	$0.000000

* The terminating Information Surcharge is included in the terminating Local Switching rate.

ACCESS TARIFF

7. SPECIAL ACCESS SERVICE

7.1 General

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

The connections provided by Special Access Service can be either analog, digital, or optical. Analog connections are differentiated by spectrum and bandwidth. Digital and optical connections are differentiated by bit rate.

7.1.1 Channel Types

There are eight types of channels used to provide Special Access Services. Each type has its own characteristics. All are subdivided by one or more of the following:

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

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

For purposes of ordering channels, each has been identified as a type of Special Access Service. However, such identification is not intended to limit a customer's use of the channel 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 Metallic Service in this tariff, there is no restriction againtst doing so.

* Telephone Company Centrex CO and CO-like switches and packet switches included in Public Packet Switching Network (PPSN) Service are considered to be a customer designated premises for purposes of this tariff.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.1 Channel Types (Continued)

A. Channel Type Descriptions

Following is a brief description of each type of channel:

Voice Grade – a channel for the transmission of analog signals within an approximate bandwidth of 300 to 3000 Hz.

Digital Data – a channel for the digital transmission of synchronous serial data at rate of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps.

High Capacity – a channel for the transmission of isochronous serial digital data at rates of 1.544, 3.152, 6.312, 44.736, or 274.176 Mbps.

Detailed descriptions of each of the channel types are provided in 7.4 through 7.6 following.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.1 Channel Types (Continued)

A. Channel Type Descriptions (Continued)

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps) to Telephone Company hubs for multiplexing to individual channels of a lower capacity or bandwidth. Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility, are set forth in 7.4 and 7.6 following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet the specific communications requirements. Descriptions of the optional features and functions available are set forth in 7.2.1(C) following.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.2 Service Descriptions

For the purposes of ordering, there are three categories of Special Access Service. These are:

	Service Designator Codes
Voice	VG
Digital Data	DA
High Capacity	DS

Each service consists of a basic channel to which a technical specifications package (customized or predefined), channel interface(s) and, when desired optional features and functions are added to construct the service desired by the customer. Technical specifications packages are described in Section 14 following, optional features and functions are described in this section. Channel interfaces are described in 14.2.

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

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

The channel descriptions provided in 7.4 through 7.6, specify the characteristics of the basic channel and indicate whether the channel is provided between customer designated premises, between a customer designated premises and a Telephone Company hub where bridging or multiplexing functions are performed, between hubs, or between a customer designated premises and a WATS Serivce Office.

(A) Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in matrices set forth in 14.2.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.2 Service Descriptions (Continued)

(B) Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in 14.2, in a combination format.

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

(D) The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in matrices set forth in 14.2 with the optional feature or function listed down the left side and the technical specifications package listed across the top.

(E) The Telephone Company will maintain services installed prior to April 1, 1985, at their existing transmission specifications provided such performance specifications do not exceed the standards listed in this provision. Those services exceeding the standards listed will be maintained at the performance levels specified in this tariff.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.2 Service Descriptions (Continued)

(F) All services installed after April 1, 1985 will conform to the transmission specifications standards contained in this tariff or in the following Technical References for each category of service:

Voice Grade	TR-NWT-000335 PUB 41004 (MDP-326-584) Table 4
Digital Data	TR-NWT-000341 and associated Addendum
For 2.4, 4.8, 9.6 & 56.0 Kbps	Pub 62310 (MDP-326-726)
For 19.2 Kbps	INC Bulletin CB-INC-100
For 64.0 Kbps	Pub 62310 (MDP-326-726)
High Capacity	GR-324-CORE GR-54-CORE

7.1.3 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint service.

(A) Two-Point Service

A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where multiplexing functions are performed, or a customer designated premises and a WATS Serving Office (WSO).

Applicable rate elements are:

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

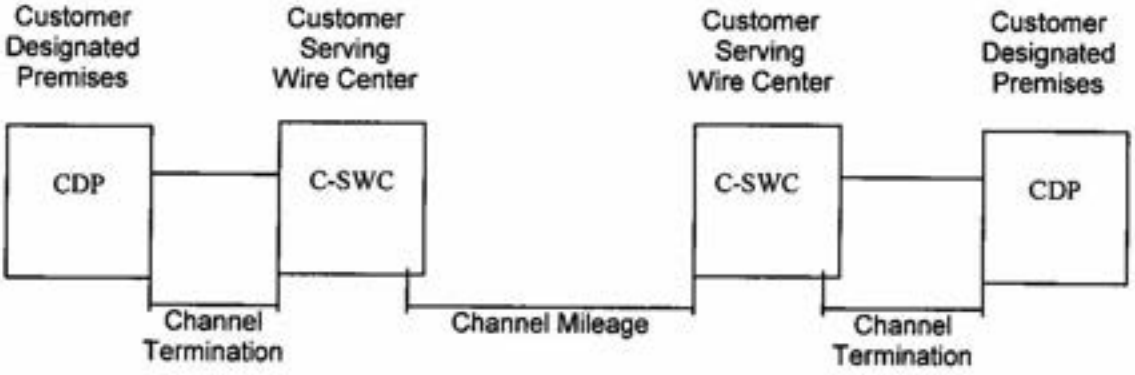
7.1 General (Continued)

7.1.3 Service Configurations (Continued)

(A) Two-Point Service

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

The following diagram depicts a two-point Voice Grade service connecting two Customer Designated Premises (CDP). The service is provided with C-Type conditioning.



Applicable rate elements are:

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

ACCESS TARIFF

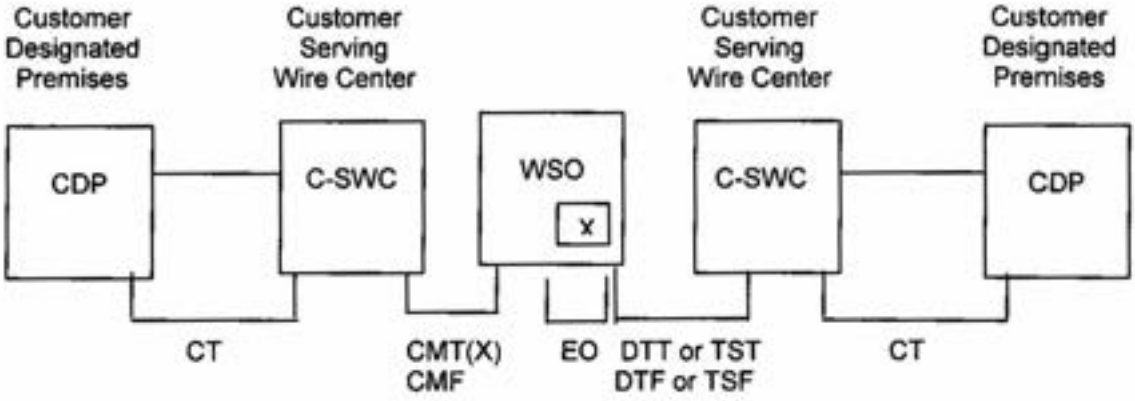
7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.3 Service Configurations (Continued)

(A) Two-Point Service

The following diagram depicts a two-point Voice Grade service connecting a customer designated premises to a WATS serving office.



	Special Access		Switched Access
CT-	Channel Termination	EO-	End Office Elements
CMT-	Channel Mileage Termination	DTT-	Direct Trunked Termination
CMF-	Channel Mileage Facility	TST-	Tandem Switched Termination
		DTF-	Direct Trunked Facility
		TSF-	Tandem Switched Facility
		CT-	Channel Termination

Applicable rate elements for Special Access are:

- Channel Termination
- Channel Mileage
  2 Channel Terminations plus
  1 section, Channel Mileage Facility per mile
- Special Access Surcharge*

*May not apply if exemption certification is provided.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.3 Service Configurations (Continued)

(B) Multipoint Service

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

Th channel between hubs (i.e., bridging locations) on a multipoint service is a mid-link. There is no limitation on the number of mid-links available with a multipoint service. However, when more than three mid-links in tandem are provided the quality of the overall service may be degraded.

Multipoint service utilizing a customized technical specifications package, as set forth in 7.1.2 preceding and 14.2 following, will be provided when technically possible. If the Telephone Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

When ordering, the customer will specify the desired bridging hub(s). NECA Tariff FCC No. 4 identifies service wire centers, hub locations and the type of bridging functions available.

Applicable Rate Elements are:

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

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.4 Alternate Use

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

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

7.1.5 Special Facilities Routing

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

7.1.6 Design Layout Report

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.1 General (Continued)

7.1.7 Acceptance Testing

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

(A) For Voice Grade analog services, the acceptance test will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise and C-message noise when these parameters are applicable and specified in the order of service. Additonally, for Voice Grade services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.

(B) For other analog services and for digital services (i.e., Digital Data and High Capacity), acceptance tests will include tests applicable to the service as specified by the customer in the order for service.

In addition to the above tests, Additional Cooperative Acceptance Testing for Voice Grade service to est other parameters, as described in 13.4.3(D) , is available at the customer's request. All test results will be made available to the customer upon request.

7.1.8 Ordering Options and Conditions

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

7.1.9 Service Provisioning

Special Access Service is provisioned over existing Telephone Company facilities. Special Access Service will be provided subject to the availability and limitations of the Telephone Company wire centers and cable and wire facilities. Where new construction, including installation of cable and wire facilities is required to provide a Special Access Service requested by the customer, the Company may, at its option, undertake such new construction and make a Special Construction Tariff filing for regulations, rates, charges and liabilities applicable to the new construction that apply in addition to all regulations, rates and charges set forth in this tariff.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations

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

7.2.1 Rate Categories

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

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

(A) Channel Termination

The Channel Termination rate category recovers the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Chanel Termination is a standad channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any. The signatling capability is provided as an optional feature as set forth in (C). One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.1 Rate Categories (Continued)

(B) Channel Mileage

The Channel Mileage rate category recovers the costs associated with the end office equipment and the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company hub or between two Telephone Company hubs. Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate.

(1) Channel Mileage Facility

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s).

(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). The Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and 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. If the Channel Milage is between the serving wire center for a customer designated premises and a WATS Serving Office, the Channel Mileage Termination rate will apply at both the serving wire center associated with the customer designated premises and the WATS Serving Office. When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.1 Rate Categories (Continued)

(C) Optional Features and Functions

The Optional Features and Functins rate category recovers the costs associated with optional features and functions which may be added to a Special access Service to improve its quality or utility to meet specific communications requirements. These are no necessarily identifiable with specific equipment, but rather represent the end results in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, they will be charged for as a single rate element.

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

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

Descriptions for each of the available Optional Features and Functions are set forth in 7.4 through 7.6.

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

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.2 Types of Rates and Charges

There are two types of rates and charges. These are monthly rates and nonrecurring charges. The rates and charges are described as follows:

(A) Monthly Rates

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

(B) Non-recurring Charges

Non-recurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of non-recurring charges that apply for Special Access Service are: installation of service, installation of optional features and functions, and service rearrangements. These charges are in addition to the Access Order Charge as specified in 5.6.1(A).

(1) Installation of Service

Non-recurring charges apply to each service installed. The non-recurring charges for the installation of service are set for each channel type as a non-recurring charge for the Channel Termination.

(2) Installation of Optional Features and Functions

When optional features and functions are installed coincident with the initial installation of service, no separate non-recurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in 5.6.1(A) will apply per order.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.2 Types of Rates and Charges (Continued)

(B) Non-recurring Charges (Continued)

(3) Service Rearrangements

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

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

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

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.2 Types of Rates and Charges (Continued)

(B) Non-recurring Charges (Continued)

(3) Service Rearrangements (Continued)

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

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

All other service rearrangements will be charged as follows:

- If the change involves the addition of other customer designated premises to an existing service, the non-recurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge as set forth in 5.6.1(A) following.

- If the change involves the additiona of an optional feature or function, or if the change involvs changing the type of signaling on a Voice Grade service, and for all other changes the Access Order Charge as set forth in 5.6.1(A) will apply.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.3 Moves

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

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

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

(A) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the non-recurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in 5.6.1(A) following.

(B) Moves to a Different Building

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

7.2.4 Minimum Periods

The minimum service period for all services is one month and the full monthly rate will apply to the first month. Adjustments for the quantities of service established or discontinued in any billing period beyond the minimum period are as set forth in 2.4.2.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.5 Mileage Measurement

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

- the service wire centers associated with two customer designated premises,
- a service wire center associated with a customer designated premises and a Telephone Company hub,
- 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 this customer designated premise would normally obtain dial tone.

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

When hubs are involved, mileage is computed and rate 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.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.5 Mileage Measurement (Continued)

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 applies only to the distance calculated between the serving wire centers associated with the customer designated premises.

7.2.6 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.

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.

NECA Tariff FCC No. 4 identifies serving wire centers, hub locations, hub level (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

Some of the types of multiplexing available include:

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.6 Facility Hubs (Continued)

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

The Telephone Company will commence billing the monthly rate for the service to the hub n 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.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.7 Mixed Use

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

The High Capacity facility will be ordered, provided and rated as Special Access Service (i.e., Channel Termination, Channel Milage, as appropriate, and Multiplexing Arrangement). The non-recurring charge that applies when the mixed use facility is installed will be the non-recurring charge associated with the appropriate Special Access High Capacity Channel Termination. Rating as Special Access will continue until such time as the customer chooses to use a portion of the available capacity for Switched Access Service. Individual service (i.e., Switched or Special Access) non-recurring charges will not apply to the individual channels of the mixed use facility.

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.2 Rate Regulations (Continued)

7.2.7 Mixed Use (Continued)

As each individual channel is activated for Switched Access Service, the High Capacity Special Access Channel Termination and Channel Mileage rates will be reduced accordingly (e.g., 1/24th for a DS1 Service, etc.). Switched Access Service rates and charges, as set forth in 6.8, will apply for each channel of the standard use facility that is used to provide a Switched Access Service.

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.3 Surcharge for Special Access Service

7.3.1 General

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

7.3.2 Application

(A) The Special Acess Surcharge will apply to each intrastate Special Access Service that terminates on an end user's PBX or other device, where through a function of the device, the Special Access Service interconnects to the local exchange network. Interconnection functions include, but are not limited to, wiring and software functions, bridging, switching or patching of calls or stations. The Surcharge will apply irrespective of whether the interconnection function is performed in equipment located at the customer's premises or in a Centrex CO-type switch.

(B) Special Access Service will be exempted from the Surcharge by the Telephone Company upon receipt of the customer's written certification for the following Special Access Service terminations:

(1) an open-end termination in a Telephone Company switch of an FX line, including CCSA and CCSA-equivalent ONALs; or

(2) an analog channel termination that is used for radio or television program transmission; or

(3) a termination used for TELEX service; or

(4) a termination that by the nature of its operating characteristics could not make use of Telephone Company common lines such as, terminations which are restricted through hardware or software; or

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.3 Surcharge for Special Access Service

7.3.2 Application (Continued)

(B) (Continued)

(5) a termination that interconnecs either directly or indirectly to the local exchange network where the usage is subject to Carrier Common Line charges such as, where the Special Access Service accesses only FGA and no local exchange lines, or Special Access Service between customer points of termination, or Special Access Service connecting CCSA or CCSA-type equipment (inter-machine trunks); or

(6) a termination that the customer certifies to the Telephone Company is not connected to a PBX or other device which interconnects the Special Access Service to a local exchange subscriber line.

7.3.3 Exemption of Special Access Service

(A) Special Access Services which are terminated as set forth in 7.3.2(B) preceding will be exempted from the Special Access Surcharge if the customer provides the Telephone Company with written exemption certification. The certification may be provided to the Telephone Company as follows:

- at the time the Special Access Service is ordered or installed;
- at such time as the service is reterminated to a device which does not interconnect the service to local exchange facilities.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.3 Surcharge for Special Access Service (Continued)

7.3.3 Exemption of Special Access Service

(B) The exemption certification is to be provided by the customer ordering the service. The certification must be signed by the customer or authorized representative and include the category of exemption, as set forth in 7.3.2(B) preceding, for each termination, and the date which the exemption is effective.

(C) The customer shall also notify the Telephone Company when an exempted Special Access Service is changed or reterminated such that the exemption is no longer applicable.

(D) The Telephone Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Telephone Company may withhold exemption of the service until the questions are resolved.

7.3.4 Rate Regulations

(A) The surcharge will apply as set forth in 7.3.2(A) preceding, except that a surcharge will be assessed on a per voice grade equivalent basis for Special Access Services derived for High Capacity Special Access Services as illustrated in the following example:

Special Access Service	Voice Grade Equivalent		Surcharge		Monthly Charge
DS1	24	X	$25	=	$600.00

The preceding example illustrates the maximum number of surcharges applicable to a DS1. If the customer claims exemptions as set forth in 7.3.3 or, is not utilizing all available voice grade equivalents and has spare capacity, the number of surcharges would be reduced accordingly.

In the casde of multipoint Special Access Services, one Special Access Surcharge will apply for each termination of a Special Access Channel at an end user's premises.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.3 Surcharge for Special Access Service (Continued)

7.3.4 Rate Regulations

(B) The Telephone Company will bill the appropriate Special Access Surcharge to the ordering customer for each intrastate Special Access Service installed unless exemption certification is provided as set forth in 7.3.3 preceding.

(C) If a written certification is not received at the time the Special Access Service is obtained, the Surcharge will be applied. Exempt status will become effective on the certification date indicated by the customer, subject to the regulations set forth in (D) following.

(D) Crediting the Surcharge

The Telephone Company will cease billing the Special Access Surcharge when certification, as set forth in 7.3.3 preceding, is received. If the status of the Special Access Service was change prior to receipt of the exemption certification, the Telephone Company will credit the customer's account, not to exceed ninety (90) days, based on the effective date of the change as specified by the customer in the letter of certification.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.4 Voice Grade Service

7.4.1 Basic Channel Description

A Voice Grade channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Telephone Company hub or hubs, or between a customer designated premises and a WATS Service Office (WSO).

Voice Grade Special Access services are typically used for voice and voiceband data applications. Typical examples of voice grade circuits are Foreign Exchange lines (station end only), multipoint private line, voice trunk type, two-point voice grade data (one-way or simultaneous two-way), multipoint voice grade data, and voice grade telephoto or facsimile. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and Charges for Special Access Voice Grade Service are as set forth in 7.7.2.

7.4.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 14.2.1(A), (B), and (C). Compatible network channel interfaces are set forth in 14.2.2(C)(1), (2), and (3).

7.4.3 Optional Features and Functions

(A) Central Office Bridging Capability

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

(2) Data Bridging (two-wire and four-wire)

(B) Central Office Multiplexing

Voice to Telegraph Grade. An arrangement that converts a Voice Grade channel to Telegraph Grade channels using frequency division multiplexing.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.4 Voice Grade Service

7.4.3 Optional Features and Functions (Continued)

(C) Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for those options are set forth in 7.7.2(C)(2).

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

(1) C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are delineated in Technical Reference TR-TSY-000335.

(2) Data Capability (D Conditioning)

Data Capability provides transmission characteristics suitable for data communications. Specifically, Data Capability provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or three-point multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 7.7.2(C)(2).

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

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.4 Voice Grade Service (Continued)

7.4.3 Optional Features and Functions (Continued)

(D) Customer Specified Premises Receive Level

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

(E) Improved Return Loss

(1) On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port); Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 7.7.2(C)(3).

(2) On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 7.7.2(C)(3).

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.4 Voice Grade Service (Continued)

7.4.3 Optional Features and Functions (Continued)

(F) Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service. The rate for this option is set forth in 7.7.2(C)(5) following.

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

The following network channel interfaces for Voice Grade service require signaling capability: AB, AC, CT, DX, DY, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF. The signaling capability charge will not apply when used in provision of WATS access service.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.4 Voice Grade Service (Continued)

7.4.3 Optional Features and Functions (Continued)

(G) Improved Two-Wire Voice Transmission

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 280 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +6.0 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed in less than:

Route Miles	C-Message Noise
Less than 50	35 dBrnco
51 to 100	37 dBrnco
101 to 200	40 dBrnco
201 to 400	43 dBrnco
401 to 1000	45 dBrnco

(4) Return Loss

The Return Loss, expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is equal to or greater than:

ERL	13.0 dB
SRL	6.0 dB

The rate for the provision of Improved Two-Wire Voice Transmission is included as part of the basic Channel Termination rate.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.5 Digital Data Service

7.5.1 Basic Channel Description

A Digital Data channel is a channel for duplex four-wire transmission of synchronous serial data at the rat of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0* Kbps. The actual bit rate is a function of the channel interface selected by the customer. The channel provides a synchronous service with timing provided by the Telephone Company through the Telephone Company's facilities to the customer in the received bit stream. Digial Data channels are provided as either hubbed or non-hubbed services between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs. The hubs providing hubbed digital service and the wire centers providing non-hubbed digital service are identified in NECA Tariff FCC No. 4.

The customer may provide the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data channels at the customer premises.

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB62310.

Rates and charges for Special Access Digital Data Service are as set forth in 7.7.3.

7.5.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 14.2.1 (A), (B), and (C). Compatible channel interfaces are set forth in 14.2.2(C)(1), (2), and (3).

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.5 Digital Data Service (Continued)

7.5.2 Technical Specifications Packages and Network Channel Interfaces (Continued)

The following network channel interfaces (NCIs) define the bit rates that are available for a Digital Data Channel:

NCI	Bit Rate
DU-24	2.4 Kbps
DU-48	4.8 Kbps
DU-96	9.6 Kbps
DU-19	19.2 Kbps
DU-56	56.0 Kbps
DU-64	64.0 Kbps

7.5.3 Optional Features and Functions

The Optional Features and Functions described in (A), (B), and (C) following are only available where Digital Data Service is provided via a hub.

(A) Central Office Bridging Capability

Bridging is not available on a 64.0 Kbps channel.

(B) Transfer Arrangement

An arrangement that affords the customer an additional measure of protection and/or flexibility in the use of their access channel(s) on a 1xN basis. The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. Theis arrangement is only available at a Telephone Company designated hub. A key activated or dial-up control service is required to operate the transfer arrangements. A spare channel, if required, is not included as part of the option.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.5 Digital Data Service (Continued)

7.5.3 Optional Features and Functions (Continued)

(C) Public Packet Switching Network (PPSN) Interface Arrangement

An arrangement that provides the interface requirements that permit a Digital Data Service to interface with a Public Package Switching Network packet switch located in a Telephone Company premises. The interface is compatible with X.25 and X.75 packet switching protocols as defined by the CCITT.

The table set forth in 14.2.1(B) shows the technical specifications packages with which the optional features and functions are available.

(D) Public Packet Data Service Interface Arrangement

An arrangement that provides for the interface requirements that permit a Digital Data Service to interface with a Public Packet Data switch located in a Telephone Company premises. The interface is compatible with Frame Relay packet switching protocols. The interface is only available for 56.0 kbps and 64.0 kbps rates.

The table set forth in 14.2.1 (B) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.6 High Capacity Service

7.6.1 Basic Channel Description

A High Capacity channel is a channel for the transmission of 1.544 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Telephone company hub or hubs.

The customer may provide the Network Channel Terminating Equipment associated with the High Capacity channel at the customer's premises. A channel with technical specifications package DS1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference GR-342-CORE.

A term discount is available for High Capacity Service.

Rates and charges for Special Access High Capacity Service are as set forth in 7.7.4 following.

7.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 14.2.1(C) following. Compatible channel interfaces are set forth in 14.2.2(C)(3) following.

The following network channel interfaces (NCIs) define the bit rates that are available for a High Capacity Channel:

NCI	Bit Rate
DS-15	1.544 Mbps (DS1)

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.6 High Capacity Service (Continued)

7.6.3 Optional Features and Functions

(A) Central Office Multiplexing

(1) DS1 to Voice

An arrangement that converts a 1.544 Mbps channel to 24 channels for use with Voice Grade Services. A channel(s) of this DS1 to the Hub can also be use for a Digital Data Service.

(2) DS1 to DS0

An arrangement that converts a 1.544 Mbps chanel to 23 64.0 Kbps channels utilizing digital time division multiplexing.

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.7 Rates and Charges

7.7.1 Surcharge for Special Access Service

	Monthly Rate
- Per Voice Grade Equivalent	$25.00

7.7.2 Voice Grade Service

	Monthly Rate	Non-Recurring Charge
(A) Channel Termination, Per termination		
Two-Wire	$95.36	$450.00
Four-Wire	$152.58	$450.00
(B) Channel Mileage		
(1) Channel Mileage Facility, Per Mile	$6.80	
(2) Channel Mileage Termination, Per Termination	$68.27	
(C) Optional Features and Functions		
(1) Bridging		
(a) Voice Bridging, Per Port		
-Two-Wire	$11.82	
-Four-Wire	$11.82	
(b) Data Bridging, Per Port		
-Two-Wire	$11.82	
-Four-Wire	$11.82	

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.7 Rates and Charges

7.7.2 Voice Grade Service (Continued)

	Monthly Rate	Non-Recurring Charge
(C) Optional Features and Functions (Continued)		
(2) Conditioning, Per Termination		
-C-Type	$17.37	
-Data Capability	$15.43	
(3) Improved Return Loss for Effective Two-Wire or Four-Wire Transmission, Per Termination		
-Two-Wire	$24.82	
-Four-Wire	$24.82	
(4) Customer Specified Receive Level, per Two-Wire Termination	$18.75	
(5) Signaling Capability, Per Termination	$39.75	

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.7 Rates and Charges

7.7.3 Digital Data Service

	Monthly Rate	Non-Recurring Charge
(A) Channel Termination, Per Termination		
- 2.4 kbps	$176.00	$390.00
- 4.8 kbps	$176.00	$390.00
- 9.6 kbps	$176.00	$390.00
- 19.2 kbps	$176.00	$390.00
- 56.0 kbps	$176.00	$390.00
- 64.0 kbps	$176.00	$390.00
(B) Channel Mileage		
(1) Channel Mileage Facility, Per Mile		
-2.4 kbps	$6.48	
-4.8 kbps	$6.48	
-9.6 kbps	$6.48	
-19.2 kbps	$6.48	
-56.0 kbps	$9.15	
-64.0 kbps	$9.15	
(2) Channel Mileage Termination, Per Termination		
-2.4 kbps	$64.85	
-4.8 kbps	$64.85	
-9.6 kbps	$64.85	
-19.2 kbps	$64.85	
-56.0 kbps	$91.89	
-64.0 kbps	$91.89	
(C) Optional Features & Functions		
(1) Bridging, Per Port	$15.91	

ACCESS TARIFF

7. **SPECIAL ACCESS SERVICE** (Continued)

7.7 Rates and Charges

7.7.4 High Capacity Service

	Monthly Rate	Non-Recurring Charge
(A) Channel Termination, Per termination		
DS1 (1.544 Mbps)	$438.64	$330.00
(B) Channel Mileage		
(1) Channel Mileage Facility, Per Mile		
-1.544 Mbps	$27.13	
(2) Channel Mileage Termination, Per Termination		
-1.544 Mbps	$140.81	
(C) Term Discounts	Percentage	
(1) 36 Months	10%	
(2) 60 Months	20%	
(D) Optional Features and Functions		
(1) Multiplexing, Per Arrangement		
(a) DS1 to Voice	$355.61	
(b) DS1 to DS0	$355.61	

8. RESERVED FOR FUTURE USE

9. DIRECTORY ASSISTANCE SERVICE

The Telephone Company will provide intrastate Directory Assistance Service in accordance with the terms, conditions and rates set forth or referenced in NECA TARIFF F.C.C. No. 5, Section 9. (T) (T)

10. RESERVED FOR FUTURE USE

11. Special Facilities Routing of Access Services

The Telephone Company will provide intrastate Special Facilities Routing of Access Services in accordance with the terms, conditions and rates set forth or referenced in NECA TARIFF F.C.C. No. 5, Section 11. (T) (T)

ACCESS SERVICE

12. SPECIALIZED SERVICE OR ARRANGEMENTS

12.1 General

Specialized Service or Arrangements may be provided by the Telephone Company, at the request of a customer, or an individual basis if such service or arrangements meet the following criteria:

- The requested service or arrangements are not offered under other sections of this tariff.
- The facilities utilized to provide the requested service or arrangements are of a type normally used by the Telephone Company in furnishing its other services.
- The requested service or arrangements are provided within a LATA.
- The requested service or arrangements are compatible with other Telephone Company services, facilities, and its engineering and maintenance practices.
- This offering is subject to the availability of the necessary Telephone Company personnel and capital resources.

Rates and charges and additional regulations if applicable, for Specialized Service or Arrangements are provided on an individual case basis and are set forth as follows.

12. RESERVED FOR FUTURE USE (D)

ACCESS TARIFF

13. ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES

In this section, normally scheduled working hours are an employee's scheduled work period on any given business day, which totals eight (8) hours.

13.1 Additional Engineering

Additional Engineering, including engineering review, will be undertaken only after the Company has notified the customer that additional engineering charges apply and the customer agrees to such charges.

Additional Engineering will be provided by the Company at the request of the customer only when:

(A) A customer requests additional technical information after the Company has already provided the technical information normally included on the Design Layout Report.

(B) Additional Engineering time is incurred by the Company to engineer a customer's request for a customized service.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.2 Additional Labor

Additional Labor is that labor requested by the customer on a given service and agreed to by the Company. The Company will notify the customer that Additional Labor charges will apply before any additional labor is undertaken. A call-out of a Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

13.2.1 Overtime Installation

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

13.2.2 Overtime Repair

Overtime repair is that Company maintenance effort performed outside of normally scheduled working hours.

13.2.3 Standby

Standby includes all time in excess of one-half (1/2) hour during which Company personnel standby to make installation acceptance tests or cooperative tests with a customer to verify facility repair on a given service.

13.2.4 Testing and Maintenance with Other Telephone Companies

Additional testing, maintenance, or repair of facilities which connect other telephone companies is that which is in addition to the normal effort required to test, maintain or repair facilities provided solely by the Company.

13.2.5 Testing Services

Testing Services other than those described in other parts of this tariff will be provided at the hourly rates described if requested by the customer. Testing will be provided subject to the availability of equipment and qualified personnel.

13.2.6 Other Labor

Other labor is that additional labor not included in 13.2.1 through 13.2.5, preceding, and labor incurred to accommodate a specific customer request that involves only labor which is not covered by any other section of this tariff.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services

13.3.1 Testing Services

Testing Services offered under this section of the tariff are optional and subject to rates and charges as set forth in 13.3.1 following. A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. Other testing services, as described in 6.1.4 and 7.1.7 preceding, are provided by the Telephone Company in association with Access Services and are furnished at no additional charge.

Testing services are normally provided by Telephone Company personnel at Telephone Company locations; however, provisions are made in (B)(2) following for a customer to request Telephone Company personnel to perform Testing Services at the customer designated premises.

The offering of Testing Services under this section of the tariff is made subject to the availability of the necessary qualified personnel and test equipment at the various test locations mentioned in (A) and (B) following.

(A) Switched Access Service

Testing Services for Switched Access are comprised of (a) tests which are performed during the installation of a Switched Access Service (i.e., Acceptance Tests), (b) tests which are performed after customer acceptance of such access services and which are without charge (i.e., routine testing) and (c) additional tests which are performed during or after customer acceptance of such access services and for which additional charges apply, (i.e., Additional Cooperative Acceptance Tests and in-service tests).

Routine tests are those tests performed by the Telephone Company on a regular basis, as set forth in 6.1.4 preceding which are required to maintain Switched Access Service. Additional in-service tests may be done on an automatic basis (no Telephone Company or customer technicians involved), on a manual basis (Telephone Company technicians(s) involved at Telephone Comopany office(s) and Telephone Company or customer technician(s) involved at the customer designated premises).

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.1 Testing Services (Continued)

(A) Switched Access Service (Continued)

Testing services are ordered to the Dial Tone Office for FGA, to the access tandem or end office for FGB (wherever the FGB service is ordered) and to the end office for FGs C and D. Testing Services for Directory Assistance Service not routed through an access tandem is ordered to a Directory Assistance Location for each NPA.

(1) Additional Cooperative Acceptance Testing

Additional Cooperative Testing of Switched Access Service involves the Telephone Company provision of a technician at its office(s) and the customer provision of a technician at its premises, with suitable test equipment to perform the required tests.

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

- Impulse Noise
- Phase Jitter
- Signal to C-Notched Noise Ratio
- Intermodulation (Nonlinear) Distortion
- Frequency Shift (Offset)
- Envelope Delay Distortion
- Dial Pulse Percent Break

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.1 Testing Services (Continued)

(A) Switched Access Service (Continued)

(2) Additional Automatic Testing

Additional Automatic Testing (AAT) of Switched Access Services (Feature Groups B, C, & D), is a service where the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent. The customer may order, at additional charges, gain-slope and C-notched noise testing and may order the routine tests (1004 Hz loss, C-Message Noise and Balance) on an as-needed or more than routine schedule.

The Telephone Company will provide an AAT report that lists the test results for each trunk tested. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

The Additional Tests (i.e., gain slope, C-notched noise, 1004 Hz loss, C-message noise and balance) may be ordered by the customer at additional charges, 60 days prior to the start of the customer prescribed schedule. The rates for Additional Automatic Tests are as set forth in 13.4.3 (B) following.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.1 Testing Services (Continued)

(A) Switched Access Service (Continued)

(3) Additional Manual Testing

Additional Manual Testing (AMT) of Switched Access Services (Feature Groups A, B, C, and D and Directory Access Service not routed through an access tandem), is a service where the Telephone Company provides a technician at its office(s) and the Telephone Company or customer customers a technician at the customer designated premises, with suitable test equipment to perform the required tests. Such additional tests will normally consist of gain-slope and C-notched noise testing. However, the Telephone Company will conduct any additional tests which the IC may request.

The Telephone Company will provide an AMT report listing the test results for each trunk tested. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on a per occurrence basis.

The Additional Manual Tests may be ordered by the customer at additional charges, 60 days prior to the start of the testing schedule as manually agreed to by the customer and the Telephone Company.

The rates for Additional Manual Testing are as set forth in 13.4.3(C) following.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.1 Testing Services (Continued)

(A) Switched Access Service (Continued)

(4) Obligations of the Customer

(a) The customer shall provide the Remote Office Test Line priming data to the Telephone Company, as appropriate, to support routine testing as set forth in 6.1.4 preceding or AAT as set forth in 13.4.3(B) preceding.

(b) The customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

(B) Special Access Service

The Telephone Company will provide assistance in performing specific tests requested by the customer.

(1) Additional Cooperative Acceptance Testing

When a customer provides a technician at its premises or at an end user's premises, with suitable test equipment to perform the requested tests, the Telephone Company will provide a technician at its office for the purpose of conducting Additional Cooperative Acceptance Testing on Voice Grade Services. At the customer's request, the Telephone Company will provide a technician at the customer's premises or at the end user premises. These tests may, for example, consist of the following:

- Attenuation Distortion (i.e., frequency response)
- Intermodulation Distortion (i.e., harmonic distortion)
- Phase Jitter
- Impulse Noise
- Envelope Delay Distortion
- Echo Control
- Frequency Shift

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.1 Testing Services (Continued)

(B) Special Access Service (Continued)

(2) Additional Manual Testing

The Telephone Compoany will provide a technician at its premises, and the Telephone Company or customer will provide a technician at the customer's designated premises with suitable test equipment to perform the requested tests.

(3) Obligation of the Customer

When the customer subscribes to the Testing Service as set forth in this seciton, the customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

13.3.2 Maintenance of Service

(A) When a customer reports a trouble to the Telephone Company for clearance and no trouble is found in the Telephone Company's facilities, the customer shall be responsible for payment of a Maintenance of Service charge as set forth in 13.4.3(F) following for the period of time from when Telephone Company personnel are dispatched, at the request of the customer, to the customer designated premises to when the work is completed. Failure of Telephone Company personnel to find trouble in Telephone Company facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.

(B) The customer shall be responsible for payment of a Maintenance of Service charge when the Telephone Company dispatches personnel to the customer designated premises, and the trouble is in equipment or communications systems provided by other than the Telephone Company or in detariffed CPE provided by the Telephone Company.

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

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.3 Telecommunications Service Priority – TSP

(A) Priority installation and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services shall be provided in accordance with Part 64.401, Appendix A, of the Federal Communications Commissioin's (FCC's) Rules and Regulations.

In addition, TSP System service shall be provided in accordance with the guidelines set forth in "Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook" (NCSH 3-1-2) dated July 9, 1990, and "Telecommunications Service Priority System for National Security Emergency Preparedness Service User Manual" (NCSM 3-1-1).

The TSP System is a service, developed to meet the requirements of the Federal Government, as specified in the Service Vendor's Handbook and Service User's Manual which provides the regulatory, administrative and operational framework for the priority installation and/or restoration of NSEP telecommunications services. These include both Switched and Special Access Services. The TSP System applies only to NSEP telecommunications services, and requires and authorizes priority action by the Telephone Company providing such services.

For Switched Access Service, the TSP System's applicability is limited to those services which the Telephone Company can discreetly identify for priority provisioning and/or restoration.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.3 Telecommunications Service Priority – TSP (Continued)

(B) A Telecommunications Service Priority charge applies as set forth in 13.4.3(G) when a request to provide or change a Telecommunications Service Priority is received subsequent to the issuance of an Access Order to install the service.

Additionally, a Miscellaneous Service Order Charge as set forth in 13.4.1 will apply to Telecommunications Service Priority requests that are ordered subsequent to the initial installation of the associated access service.

A Telecommunications Service Priority charge does not apply when a Telecommunications Service Priority is discontinued or when ordered coincident with an Access Order to install or change service.

In addition, Additional Labor rates as set forth in 13.4.2 may be applicable when provisioning or restoring Switched or Special Access Services with Telecommunications Service Priority.

When the customer requests an audit or a reconciliation of the Telephone Company's Telecommunications Service Priority records, a Miscellaneous Service Order Charge as set forth in 5.6.1(D) and Additional Labor rates as set forth in 13.4.2 are applicable.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.4 Miscellaneous Equipment

(A) Controller Arrangement

This arrangement enables the customer to control up to 48 transfer functions at a Telephone Company central office via a remote keyboard terminal capable of either 300 or 1200 bps operation. Included as part of the Controller Arrangement is a dial-up data station located at the Telephone Company Central Office to provide access to the Controller Arrangement. This dial-up data station consists of a 212A DATAPHONE data set and an appropriate Telephone Company provided channel.

The Controller Arrangement must be located in the same Telephone Company central office as the transfer functions which it controls.

Charges for the Controller Arrangement are set forth in 13.4.3(H) following.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.5 IntraLATA Presubscription

(A) General

IntraLATA Presubscription is a procedure whereby a customer designates to the Telephone Company the carrier which the customer wishes to be the carrier of choice for intraLATA toll calls. Such calls are automatically directed to the designated carrier, without the need to use carrier access codes or additional dialing to direct the call to the designated carrier. IntraLATA presubscription does not prevent a customer, who has presubscribed to an intraLATA toll carrier, from using carrier access codes or additional dialing to direct calls to an alternative intraLATA toll carrier on a per call basis.

All intraLATA toll message calls are subject to IntraLATA Presubscription. An intraLATA toll message call is a completed call on the public switched network between the originating location and a terminating location within a given LATA, but outside the local service area of the originating location.

All 0- calls, calls to 1-HNPA-555-1212 or 555-1212, 411, 611, 911, Public Announcement Service calls (976-XXXX), and all local calls, including Extended Area Service (EAS) and Expanded Local Calling calls, are specifically excluded from IntraLATA Presubscription. Calls using the 500, 700, 800 series, or 900 service access codes shall be routed in accordance with the North American Numbering Plan.

(B) Rules and Regulations

Customers of record on the effective date of this tariff will retain their current dialing arrangements until they request that their dialing arrangements be changed. All customers of record will be initially presubscribed to the Telephone Company's intraLATA carrier.

Customers may change their Option and/or their presubscribed intraLATA toll carrier at any time subject to charges specified in Paragraph D below.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.3 Miscellaneous Services (Continued)

13.3.5 IntraLATA Presubscription (Continued)

(C) IntraLATA Presubscription Customer Notices

The Telephone Company will notify customers that IntraLATA Presubscription is available no longer than thirty (30) days following the effective date of this tariff. The notice will contain a description of intraLATA toll presubscription, how to make an intraLATA toll presubscription carrier selection, a description of when and what charges apply related to the selection of an intraLATA toll carrier.

(D) IntraLATA Presubscription Charges

There will be no charge for a customer's initial intraLATA toll presubscription selection for a period beginning on the effective date of this tariff and ending no sooner than ninety (90) days following the mailing date of customer notification of intraLATA presubscription availability.

New local service customers will be asked to select a carrier(s) for their intraLATA toll and interLATA calls subject to presubscription at the time they place on order with the Telephone Company for local exchange service. If the new customer is unable to make a selection, at that time, the new customer will be read a random listing of all available intraLATA toll carriers to aid their selection. If the new customer is still unable to make a selection, at that time, the Telephone Company will inform the new customer that their intraLATA calling arrangements will be defaulted to their interLATA carrier.

After a customer's initial selection for a presubscribed intraLATA toll carrier, for any change thereafter, an IntraLATA Presubscription Change Charge (PIC), as set forth in Section 13.4.3(I) will apply.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges

13.4.1 Additional Engineering

	Charge
Additional Engineering Periods	
(A) Basic Time, per engineer Normally Scheduled working hours	$31.03
(B) Overtime, per engineer Outside of normally scheduled working hours	$46.55
(C) Premium Time, per engineer Outside of scheduled work day	$62.06

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges

13.4.2 Additional Labor

	Charge
Additional Labor Periods	
(A) Installation or Repair	
- Overtime, per technician outside of normall scheduled working hours on a scheduled work day	$47.57*
- Premium Time, per technician outside of scheduled work day	$63.42*
(B) Standby	
- Basic time, per technician normally scheduled working hours	$21.18
- Overtime, per technician outside of normally scheduled working hours on a scheduled work day	$31.77
- Premium Time, per technician outside of scheduled work day	$42.36

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

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges (Continued)

13.4.2 Additional Labor (Continued)

	Each ½ Hour or Fraction Thereof	
	Installation and Repair Technician	Central Office Maintenance Technician
Additional Labor Periods		
(C) Testing and Maintenance with other Telephone Companies, or Other Labor		
- Basic Time per technician, Normally scheduled working hours	$31.71	$34.66
- Overtime, per technician, Outside of normally scheduled working hours on a scheduled work day	$47.57	$51.99
- Premium Time, Per technician, outside of scheduled work day	$63.42	$69.32

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

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges (Continued)

13.4.3 Miscellaneous Services

(A) Additional Cooperative Acceptance Testing – Switched Access

	Each Half Hour or Fraction Thereof
Testing Periods	
Basic Time, Overtime* and Premium Time*	See the rates for Additional Labor as set forth in 13.4.2(C) preceding.

(B) Additional Automatic Testing – Switched Access – Group D, All

To First Point of Switching

Additional Tests

	Per Test Per Transmission Path
Gain-Slope Tests	$2.89
C-Notched Noise Tests	$2.89
1004 Hz Loss**	$2.89
C-Message Noise**	$2.89
Balance (return loss)**	$2.89

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

** 1004 Hz Loss, C-Message Noise and Balance are non-chargeable routine tests; however, they may be requested on an as needed or more than routine scheduled basis, in which case the charges herein apply.

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges (Continued)

13.4.3 Miscellaneous Services (Continued)

(C) Additional Manual Testing – Switched Access-Group D, All

To First Point Of Switching	Each Half Hour or Fraction Thereof
Additional Tests	
Gain Slope, C-Notched Noise and Any other agreed to Tests, per technician	See the rates for Additional Labor as set forth in 13.4.2(C) preceding.

(D) Additional Cooperative Testing – Special Access – Group D, All

Testing Periods	Each Half Hour or Fraction Thereof
Basic Time, Overtime* And Premium Time*	See the rates for Additional Labor as set forth in 13.4.2(C) preceding.

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

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges (Continued)

13.4.3 Miscellaneous Services (Continued)

(E) Additional Manual Testing – Special Access

Testing Periods	Each Half Hour or Fraction Thereof
Basic Time, Overtime* and Premium Time*	See the rates for Additional Labor as set forth in 13.4.2(C) preceding.

(F) Maintenance of Service

Maintenance of Service Periods	Each Half Hour or Fraction Thereof
Basic Time, Overtime* And Premium Time*	See the rates for Additional Labor as set forth in 13.4.2(C) preceding.

(G) Telecommunications Service Priority

	Non-Recurring Charge
Per Service Arranged	$54.63

(H) Controller Arrangement-Group D, All

	Monthly Rate
Per Arrangement	$100.00

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

ACCESS TARIFF

13. **ADDITIONAL ENGINEERING, ADDITIONAL LABOR AND MISCELLANEOUS SERVICES** (Continued)

13.4 Rates and Charges (Continued)

13.4.3 Miscellaneous Services (Continued)

(I) IntraLATA Presubscription

	Non-Recurring Charge
(1) IntraLATA Presubscription Change Charge	
Per business or residence line, trunk or port -Initial line, trunk, or port	$1.25
(2) Simultaneous IntraLATA and InterLATA Change Charge	
Per business or residence line, trunk or port -Initial line, trunk, or port	$0.62

ACCESS SERVICES

14. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS

14.1 contains Switched Access Service Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level and Local Transport Termination) and Transmission Specifications. 14.2 describes Special Access Service Network Channel (NC) codes and Network Interface (NCI) codes.

14.1 Switched Access Service

Ten Interface Groups are provided for terminating the Local Transport at the customer's designated premises. Each Interface Group provides a specified premises interface. Where transmission facilities permit, the individual transmission path between the customer's designated premises and the first point of switching may, at the option of the customer, be provided with optional features per in 14.1.1(E).

As a result of the customer's access order and the type of Company transport facilities serving the customer's premises, the need for signaling conversions or two-wire to four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Company equipment be placed at the customer's premises. For example, if a voice frequency interface is ordered by the customer and the Company facilities serving the customer's premises are digital, then Company channel bank equipment must be placed at the customer's premises in order to provide the voice frequency interface ordered by the customer.

14.1.1 Local Transport Interface Groups

Interface Groups are combinations of technical parameters which describe the Telephone Company handoff at the point of termination at the customer designated premises. The technical specifications concerning the available interface groups are set forth in (A) through (D) following.

Interface Group 1 is provided with Type C Transmission Specifications, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, depending on the Feature Group and whether the Access Service is routed directly or through an access tandem. All Interface Groups are provided with Data Transmission Parameters.

Only certain premises interfaces are available at the customer's premises. The premises interfaces associated with the Interface Groups may vary among Feature Groups.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(A) Interface Group 1

Interface Group 1, except as set forth in the following, provides two-wire voice frequency transmission at the point of termination at the customer's premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

Interface Group 1 is not provided in association with FGC and FGD when the first point of switching is an access tandem. In addition, Interface Group 1 is not provided in association with FGB, FGC, or FGD when the first point of switching provides only four-wire terminations.

The transmission path between the point of termination at the customer's premises and the first point of switching may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of 300 to 3000 Hz.

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC, or FGD, such signaling, except for two-way calling, which is E&M signaling, will be reverse battery signaling.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(B) Interface Group 2

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer's premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

The transmission path between the point of termination at the customer's premises and the first point of switching may be comprised of any form or configuration of plant 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.

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGB, FGC, or FGD, such signaling, except for two-way calling, which is E&M signaling, will be reverse battery signaling.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(C) Interface Groups 3 through 5

Interface Groups 3 through 5 provide analog transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the frequencies illustrated following, with the capability to channelize voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Groups are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex equipment to derive the transmission paths of frequency bandwidth of approximately 300 to 3000 Hz.

The interfaces are provided with individual transmission path SF supervisory signaling.

Interface Group Identification No.	Transmission Frequency Bandwidth	Analog Hierarchy Level	Maximum No. of Channelized Voice Freq. Trans. Paths
3	60-108 kHz	Group	12
4	312-552 kHz	Supergroup	60
5	564-3084 kHz	Mastergroup	600

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(D) Interface Groups 6 through 10

Interface Groups 6 through 10 provide digital transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the nominal bit rates illustrated following, with the capability to channelize voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive transmission paths of a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide a DS1 signal(s) in D3/D4 format.

The interfaces are provided with individual transmission path bit stream supervisory signaling.

Interface Group Identification No.	Nominal Bit Rate (Mbps)	Digital Hierarchy Level	Maximum No. of Channelized Voice Freq. Trans. Paths
6	1.544	DS1	24
7	3.152	DS1C	48
8	6.312	DS2	96
9	44.736	DS3	672
10	274.176	DS4	4032

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(E) Local Transport Optional Features

Where transmission facilities permit, the Telephone Company will, at the option of the customer, provide the following features in association with Local Transport. An Access Order charge as specified in 5.6.1(A) following is applicable on a per order basis when nonchargeable optional features are added subsequent to the installation of service.

- Customer Specified Entry Switch Receive Level

  Customer Specified Entry Switch Receive Level allows the customer to specify the receive transmission level at the first point of switching. The range of transmission levels which may be specified is described in Technical Reference TR-NPL-000334. This feature is available with Interface Groups 2 through 10 for Feature Groups A and B.

- Customer Specification of Local Transport Termination

  Customer Specification of Local Transport Termination allows the customer to specify, for Feature Group B routed directly to an end office or access tandem, a four-wire termination of the Local Transport at the first point of switching in lieu of a Telephone Company selected two-wire termination. This option is available only when the Feature Group B arrangement is provided with Type B Transmission Specifications.

- Supervisory Signaling

  Supervisory Signaling allows the customer to order an optional supervisory signaling arrangement for each transmission path provided where the transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(E) Local Transport Optional Features (Continued)

The Interface Groups, as descrived in (A) through (D) preceding, represent industry standard arrangements. Where transmission parameters permit, the customer may select the following optional signaling arrangements in place of the signaling arrangements standardly associated with the Interface Groups.

- For Interface Groups 1 and 2 associated with FGB, FGC or FGD

  DX Supervisory Signaling,
  E&M Type I Supervisory Signaling,
  E&M Type II Supervisory Signaling, or
  E&M Type III Supervisory Signaling

- For Interface Group 2 associated with FGB, FGC or FGD and in addition to the preceding

  SF Supervisory Signaling, or
  Tandem Supervisory Signaling

- For Interface Groups 3 through 5

  Optional Supervisory Signaling Not Available

- For Interface Groups 6 through 10

These Interface Groups may, at the option of the customer, be provided with individual transmission path SF supervisory signaling where such signaling is available in Telephone Company central offices. Generally such signaling is available only where the first point of switching provides an analog (i.e. non-digital) interface to the transport termination.

Additionally, in (F) following, there is a matrix of available Premises Interface Codes as a function of Interface Group, Telephone Company Switch Supervisory Signaling and Feature Group.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(F) Available Premises Interface Codes

Following is a matrix showing premises interface codes which are available for each Interface Group. Their availability is a function of the Telephone Company switch supervisory signaling and Feature Group. For explanations of these codes, see the Parameter Codes and Options as set forth in 14.2.2(A) following.

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
1	LO	2LS2	X			
	LO	2LS3	X			
	GO	2GS2	X			
	GO	2GS3	X			
	LO, GO	2DX3	X			
	LO, GO	4EA3-E	X			
	LO, GO	4EA3-M	X			
	LO, GO	6EB3-E	X			
	LO, GO	6EB3-M	X			
	RV, EA, EB, EC	2DX3		X	X	X
	RV, EA, EB, EC	4EA3-E		X	X	X
	RV, EA, EB, EC	4EA3-M		X	X	X
	RV, EA, EB, EC	6EB3-E		X	X	X
	RV, EA, EB, EC	6EB3-M		X	X	X
	EA, EB, EC	6EC3			X	X
	RV	2RV3-0		X	X	X
	RV	2RV3-T		X	X	X
	SS7	2NO2			X	X

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(F) Available Premises Interface Codes (Continued)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
2	LO, GO	4SF2	X			
	LO, GO	4SF3	X			
	LO	4LS2	X			
	LO	4LS3	X			
	LO	6LS2	X			
	GO	4GS2	X			
	GO	4GS3	X			
	GO	6GS2	X			
	LO, GO	4DX2	X			
	LO, GO	4DX3	X			
	LO, GO	6EA2-E	X			
	LO, GO	6EA2-M	X			
	LO, GO	8EB2-E	X			
	LO, GO	8EB2-M	X			
	LO, GO	6EX2-B	X			
	RV, EA, EB, EC	4SF2		X	X	X
	RV, EA, EB, EC	4SF3		X		
	RV, EA, EB, EC	4DX2		X	X	X
	RV, EA, EB, EC	4DX3		X		
	RV, EA, EB, EC	6DX2			X	
	RV, EA, EB, EC	6EA2-E		X	X	X
	RV, EA, EB, EC	6EA2-M		X	X	X
	RV, EA, EB, EC	8EB2-E		X	X	X
	RV, EA, EB, EC	8EB2-M		X	X	X
	EA, EB, EC	8EC2-M			X	X
	RV	4RV2-0		X	X	X
	RV	4RV2-T		X	X	X
	RV	4RV3-O		X	X	
	RV	4RV3-T		X	X	
	SS7	4NO2			X	X

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(F) Available Premises Interface Codes (Continued)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
3	LO, GO	4AH5-B	X			
	RV, EA, EB, EC	4AH5-B		X	X	X
	SS7	4AH5-B			X	X
4	LO, GO	4AH6-C	X			
	RV, EA, EB, EC	4AH6-C		X	X	X
	SS7	4AH6-C			X	X
5	LO, GO	4AH6-D	X			
	RV, EA, EB, EC	4AH6-D		X	X	X
	SS7	4AH6-D			X	X
6	LO, GO	4DS9-15	X			
	LO, GO	4DS9-15L	X			
	RV, EA, EB, EC	4DS9-15		X	X	X
	RV, EA, EB, EC	4DS9-15L		X	X	X
	SS7	RDS9-15			X	X
7	LO, GO	4DS9-31	X			
	LO, GO	4DS9-31L	X			
	RV, EA, EB, EC	4DS9-32		X	X	X
	RV, EA, EB, EC	4DS9-31L		X	X	X
	SS7	4DS9-31			X	X
8	LO, GO	4DS0-63	X			
	LO, GO	4DS0-63L	X			
	RV, EA, EB, EC	4DS0-63		X	X	X
	RV, EA, EB, EC	4DS0-63L		X	X	X
	SS7	4DS0-63			X	X

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.1 Local Transport Interface Groups (Continued)

(F) Available Premises Interface Codes (Continued)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group A	B	C	D
9	LO, GO	4DS6-44	X			
	LO, GO	4DS6-44L	X			
	RV, EA, EB, EC	4DS6-44		X	X	X
	RV, EA, EB, EC	4DS6-44L		X	X	X
	SS7	4DS6-44			X	X
10	LO, GO	4DS6-27	X			
	LO, GO	4DS6-27L	X			
	RV, EA, EB, EC	4DS6-27		X	X	X
	RV, EA, EB, EC	4DS6-27L		X	X	X
	SS7	4DS6-27			X	X

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications

Descriptions of the transmission specifications available with each Feature Group as a function of the Interface Group selected by the customer, are set forth in (A) through (D) following. Descriptions of each of these Standard Transmission Specifications and the two Data Transmission Parameters mentioned are set forth respectively in (E) through (G) and 14.1.3 (A) and (B) following:

(A) Feature Group A

FGA is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the first point of switching. Type C Tranmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGA to the first point of switching.

(B) Feature Group B

FGB is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters 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 Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGB to the first point of switching.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(C) Feature Group C

FGC is provided with either Type B or Type C Tranmission Specifications 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 Specifications are 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.

Type DB Data Transmission Parameters are provided with FGC for the transmission path between the customer designated premises and the end office when directly routed to the end office, and between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(D) Feature Group D

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

- When routed to the end office either Type B or Type C is provided.
- When routed to an access trandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.

Type C Transmission Specifications are provided with Interface Group 1. Type A and Type B Transmission Specifications are provided with Interface Groups 2 through 10.

Type DB Data Transmission Parameters are provided with FGD for the transmission path between the customer designated premises and the end office when directly routed to the end office. 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 when routed via an access tandem.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(E) Type A Transmission Specifications

Type A Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

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

(2) Attenuation Distortion

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

Route Miles	C-Message Noise
less than 50	32 dBrnCO
51 to 100	34 dBrnCO
101 to 200	37 dBrnCO
201 to 400	40 dBrnCO
401 to 1000	42 dBrnCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone, is less than or equal to 45 dBrnCO.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(E) Type A Transmission Specifications

(5) Echo Control

Echo Control, identified as Equal Level Echo Path Loss, and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

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

(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(F) Type B Transmission Specifications

Type B Transmission Specification is provided with the following parameters.

(1) Loss Deviation

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

(2) Attenuation Distortion

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

(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	35 dBrnCO
51 to 100	33 dBrnCO	37 dBrnCO
101 to 200	35 dBrnCO	40 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

* For Feature Groups C and D only Type B2 will be provided. For Feature Groups A and B, Type B1 or B2 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.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(F) Type B Transmission Specifications (Continued)

Type B Transmission Specification is provided with the following parameters. (Continued)

(5) Echo Control

Echo Control, identified as Impedance Balance for FGA and FGB and Equal Level Echo Path Loss for FGC and FGD, and expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is dependent on the routing; i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. The ERL and SRL also differ by 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
POT to End Office		
- Terminated in 2-Wire trunk	16 dB	11 dB
POT to End Office		
- Direct	16 dB	11 dB
- Via Access Tandem		
• For FGB 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 SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(F) Type B Transmission Specifications (Continued)

Type B Transmission Specification is provided with the following parameters. (Continued)

(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

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(G) Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss is ±3.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +5.5 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

Route Miles	C-Message Noise* Type C1	C-Message Noise* 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
401 to 1000	39 dBrnCO	45 dBrnCO

* For Feature Group C and D only Type C2 will be provided. For Feature Groups A and B, Type C1 or 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 dBm0 holding tone is less than or equal to 47 dBrnCO.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.2 Standard Transmission Specifications (Continued)

(G) Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters: (Continued)

(5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	Echo Return Loss	Singing Return Loss
POT to Access Tandem	13 dB	6 dB
POT to End Office		
- Direct	13 dB	6 dB
- Via Access Tandem (for FGB only)	8 dB	4 dB

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.3 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Feature Group arrangements. Type DB is provided with Feature Groups A, B and C and also with Feature Group D when Feature Group D is directly routed to the end office. Type DA is only provided with Feature Group D and only when routed via an access tandem. 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 equal to or greater than 33 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	500 microseconds
equal to or greater than 50 route miles	900 microseconds

1004 to 2404 Hz

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

(3) Impulse Noise Counts

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

(4) Intermodulation Distortion

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

Second Order (R2)	33 dB
Third Order (R3)	37 dB

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.3 Data Transmission Parameters (Continued)

(A) Data Transmission Parameters Type DA

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5 peak-to-peak.

(6) Frequency Shift

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

(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.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.1 Switched Access Service (Continued)

14.1.3 Data Transmission Parameters (Continued)

(B) Data Transmission Parameters Type DB (Continued)

(4) Intermodulation Distortion

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

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

(5) Phase Jitter

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

(6) Frequency Shift

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

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service

This section explains and lists the codes that the customer must specify when ordering Special Access Service. Switched Access, Entrance Facilities, and Voice Grade and High Capacity Direct Trunked Transport. These codes provide a standardized means to relate the services being ordered to Special Access Service offerings contained in Section 7 preceding.

When ordering, the type of Special Access Service or Switched Access Entrance Facility or Direct Trunked Transport is described by two code sets, the Network Channel (NC) code and the Network Channel Interface (NCI) codes.

The Network Channel (NC) code consists of two elements. Element one is a Channel Service Code (character positions 1 and 2) that describes the channel service type in an abbreviated form. Element two is an Optional Feature Code character positions 3 and 4) that identifies optional codes available for each channel service code, such as C-Conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Telephone Company and the customer.

On the following pages are examples which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types (e.g., TF1= Telegraph). The SD and NC codes are displayed as components of the matrices designated as Technical Specifications packages in (A) through (G) following. Through the use of these matrices, DS codes may be converted to NC codes for service ordering purposes.

A chart is also provided in 14.2.2(A) following which contains information necessary to develop NCI codes.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Special Report (x) SR-STS-000307. However, not all services contained in this Special (x) Report may be offered by the Telephone Company at this time.

Lastly, 14.2.2(C) following provides a list of compatible Network Channel Interfaces inasmuch as the Network Channel Interfaces associated with a given service need not always be the same, but all must be compatible.

Example 1: If the customer wishes to order a 4-wire voice grade circuit with 600 Ohms impedance, capable of data transmission, and with improved return loss, the customer might specify the following:

NC	NCI	SECNCI
LG-R	04DB2	04DA2-S

NC Code:
- LG= Voice Grade Channel Service, VG6
- -R= Improved Return Loss

NCI Code:
- 04= Number of physical wires at CDP
- DB= Data stream in VF frequency band at the customer designated main terminal location
- 2= 600 Ohms impedance

SECNCI (Secondary NCI Code):
- 04= Number of physical wires at CDP
- DA= Data stream in VG frequency at the customer designated secondary terminal location
- 2= 600 Ohms impedance
- S= Sealing current option for 4-wire transmission

In the above example the NCI (Network Channel Interface) code is the interface requested at the customer's POT (Point of Termination) and the SECNCI (Secondary Network Channel Interface) code represents the interface at the end office serving the End User.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

Example No. 2: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

NC	NCI	SECNCI
LC--	04LO2	02LS2

NC Code:
- LC= Voice Grade Channel Service, VG2
- --= No Optional Features

NCI Code:
- 04= Number of physical wires at CDP
- LO= Loop start, loop signaling – open end
- 2= 600 Ohms impedance

SECNCI (Secondary NCI Code):
- 02= Number of physical wires at CDP
- LS= Loop start signaling – closed end
- 2= 600 Ohms impedance

Example No. 3: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

NC	NCI	SECNCI
HC--	04DS9-15	04DS9-15

NC Code:
- HC= High Capacity Channel Service, HC1
- --= No Optional Features

NCI, SECNCI Code:
- 04= Number of physical wires at CDP
- DS= Digital hierarchy interface
- 9= 100 Ohms impedance
- 15= 1.544 Mbps (DS1) format

The preceding three examples use information contained in Special Report SF-STS-000307.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.1 Network Channel (NC) Codes

In order to determine the NC code appropriate for the service to be ordered, the type of Special Access Service the customer wishes must be identified. This identification is accomplished by a Service Designator (SD) code. The broad categories of Service Designator codes (e.g., VG, MT, TG, etc.) are set forth in Section 7 preceding. Variations within service type (e.g., VG1, MTC, TG2, etc.) are described in the various Technical Publications cited in (A) through (G) following.

Having determined the specific service type to be ordered and its SD code, and having used the appropriate Technical Publication, the customer should match the DS code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth 14.2.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.1 Network Channel (NC) Codes (Continued)

(A) Technical Specifications Packages Voice Grade Service

		Package VG-												
SD Code	C*	1	2	3	4	5	6	7	8	9	10	11	12	W
NC Code	LQ	LB	LC	LD	LE	LF	LG	LH	LJ	LK	LN	LP	LR	SE
Parameter														
Attenuation Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Echo Control	X	X	X	X		X		X	X			X	X	X
Envelope Delay Distortion	X						X	X	X	X	X	X	X	X
Frequency Shift	X						X	X	X	X	X	X	X	X
Impulse Noise	X					X	X	X	X	X	X	X	X	X
Intermodulation Distortion	X							X	X	X	X	X		X
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain Hits and Dropouts	X													
Phase Jitter	X							X	X	X	X	X		X
Signal-to-C Message Noise						X								
Signal-to-C Notch Noise	X				X		X	X	X	X	X	X	X	X

The technical specifications for these parameters (except for dropouts, phase hits, and gain hits) are described in Technical References TR-NPL-000334 and TR-TSY-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004, Table 4.

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

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.1 Network Channel (NC) Codes (Continued)

(A) Technical Specifications Packages Voice Grade Service (Continued)

		Package VG-												
SD Code	C*	1	2	3	4	5	6	7	8	9	10	11	12	W
NC Code	LQ	LB	LC	LD	LE	LF	LG	LH	LJ	LK	LN	LP	LR	SE
Optional Features and Functions														
Central Office Bridging Capability	X		X			X	X				X	X	X	
Central Office Multiplexing	X						X							
Conditioning:														
-C-type	X					X	X	X	X	X	X			
-Improved Attenuation Distortion	X					X	X	X	X	X	X			
-Improved Envelope Delay Distortion		X				X	X	X	X	X	X			
-Sealing Current	X						X							
-Data Capability	X					X	X	X						
-Telephoto Capability	X											X		
Customer Specified Premises Receive Level	X		X	X			X	X	X					
Improved Return Loss For Effective Four-Wire Transmission	X	X	X	X	X	X	X	X	X	X	X	X	X	
For Effective Two-Wire Transmission	X		X	X				X						
Improved Two-Wire Voice Transmission														X
PPSN Interface Arrangement	X									X				
Selective Signaling Arrangement	X		X			X	X				X	X	X	
Signaling Capability Transfer Arrangement	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.1 Network Channel (NC) Codes (Continued)

(B) Technical Specifications Packages Digital Data Service

	Package					
SD Code NC Code	D1 XA	D2 XB	D3 XG	D4 XH	D5 XE	D6 YN
Parameter/Hubbed						
Error-Free Seconds	X	X	X	X	X	X
Optional Features and Functions/Hubbed						
Central Office Bridging Capability	X	X	X	X	X	X
PPSN Interface Transfer Arrangement	X	X	X	X	X	X
Transfer Arrangement	X	X	X	X	X	X

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data Hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Optional Features and Functions/Non-Hubbed						
Public Packet Data Arrangement				X	X	

Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-000341.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.1 Network Channel (NC) Codes (Continued)

(C) Technical Specifications Packages High Capacity Service

	Package					
SD Code	HC0	HC1	HC1C	HC2	HC3	HC4
NC Code	HS	HC	HD	HE	HF	HG
Parameters						
Error-Free Seconds		X				
Optional Features and Functions/Hubbed						
Automatic Loop Transfer			X			
Central Office Multiplexing:						
DS4 to DS1						X
DS3 to DS1					X	
DS2 to DS1				X		
DS1C to DS1			X			
DS1 to Voice		X				
DS1 to DS0		X				
DS0 to Subrate*	X					
Transfer Arrangement		X				
Clear Channel Capability		X				

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

*Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

The electrical interface with the Telephone Company for Special Access Services, is defined by an interface code. There are interface codes for both the customer designated premises and the point of termination. Three examples of NCI codes are found in 15.2 preceding.

(A) Parameter Codes and Options

Code	Option	Definition
AB -		accepts 20 Hz ringing signal at customer's point of termination
AC -		accepts 20 Hz ringing signal at customer's end user's point of termination
AH		analog high capacity interface
	B	60 kHz to 108 kHz (12 channels)
	C	312 kHz to 552 kHz (60 channels)
	D	564 KHz to 3084 kHz (600 channels)
CT -		Centrex Tie Trunk Termination
CS		digital hierarchy interface at Digital Cross Connect System (DCS)
	15	1.544 Mbps (DS1) ANSI Extended Superfarame (ESF) Format And B8ZS Clear Channel Capability
	15A	1.544 Mbps (DS1) Superframe (SF) format
	15B	1.544 Mbps (DS1) Superframe (SF) format and B8ZS Clear Channel Capability
	15K	1.544 Mbps (DS1) Extended Superframe (ESF)
DA -		data stream in VF frequency band at customer's end user's point of termination
DB -		data stream in VF frequency band at customer's point of termination
	- 10	VF for TG1 and TG2
	- 43	VF for 43 Telegraph Carrier type signals, TG1 and TG2
DC -		direct current or voltage
-	1	monitoring interface with services RC combination (McCulloh format)
-	2	Telephone Company energized alarm channel
-	3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)
DD -		DATAPHONE Select-A-Station (and TABS) interface at customer's point of termination
DE		DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(A) Parameter Codes and Options (Continued)

Code	Option	Definition
DE	-	DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination
DS	-	digital hierarchy interface
	- 15	1.544 Mbps (DS1) format per PUB 62411 plus D4
	- 15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	- 15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	- 15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	- 15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	- 15J	1.544 Mbps format for PUB 62411
	- 15K	1.544 Mbps format for PUB 62411 plus extended framing format
	- 15L	1.544 Mbps (DS1) with SF signaling
	- 27	274.176 Mbps (DS4)
	- 27L	274.176 Mbps (DS4) with SF signaling
	- 31	3.152 Mbps (DS1C)
	- 31L	3.152 Mbps (DS1C) with SF signaling
	- 44	44.736 Mbps (DS3)
	- 44L	44.736 Mbps (DS3) with SF signaling
	- 63	6.312 Mbps (DS2)
	- 63L	6.312 Mbps (DS2) with SF signaling
DU	-	Digital access interface
	- 24	2.4 kbps
	- 48	4.8 kbps
	- 56	56.0 kbps
	- 96	9.6 kbps
	- 64	64.0 kbps
	- A	1.544 Mbps format for PUB 62411
	- B	1.544 Mbps format per PUB 62411 plus D4
	- C	1.544 Mbps format per PUB 62411 plus extended framing format
	- 1KN	1.544 Mbps ANSI Extended Superframe (ESF) Format without line power
	- 1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line power
	- AN	1.544 Mbps free-framing format without line power (only avail. To U.S. Govt. agencies)
	- BN	1.544 Mbps Superframe (SF) Format without line power
	- DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power
DX	-	duplex signaling interface at customer's point of termination
DY	-	duplex signaling interface at customer's end user's point of termination

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(A) Parameter Codes and Options (Continued)

Code	Option	Definition
EA -	E	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E lead.
EA -	M	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB -	E	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EB -	M	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EC -		Type III E&M Signaling at customer POT.
EX -	A	tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions.
EX -	B	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
GO -		ground start loop signaling - open end function by customer or customer's end user.
GS -		Ground start loop signaling - closed end function by customer or customer's end user.
IA -		E.I.A. (25 pin RS-232).
LA -		end user loop start loop signaling - Type A OPS registered port open end.
LB -		end user loop start loop signaling - Type B OPS registered port open end.
LC -		end user loop start loop signaling - Type C OPS registered port open end.
LO -		loop start loop signaling - open end function by customer or customer's end user.
LR -		20 Hz automatic ringdown interface at customer with Telephone Company provided PLAR.
LS -		loop start loop signaling - closed end function by customer or customer's end user.
NO -		no signaling interface, transmission only.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(A) Parameter Codes and Options (Continued)

Code		Option	Definition
PG	-		program transmission - no dc signaling.
	-	1	nominal frequency from 50 to 15000 Hz.
	-	3	nominal frequency from 200 to 3500 Hz.
	-	5	nominal frequency from 100 to 5000 Hz.
	-	8	nominal frequency from 50 to 8000 Hz.
PR	-		protective relaying*.
RV	-	0	reverse battery signaling, one way operation, originated by customer.
	-	T	reverse battery signaling, one way operation, terminate function by customer or customer's end user.
	-	SF	single frequency signaling with VF band at either customer POT or customer's end user POT.
	-	TF	telephotograph interface.
	-	TT	telegraph/teletypewriter interface at either customer POT or customer's end user POT.
	-	2	20.0 milliamperes.
	-	3	3.0 milliamperes.
	-	6	62.5 milliamperes.
TV	-		television interface.
	-	1	combined (diplexed) video and one audio signal.
	-	2	combined (diplexed) video and two audio signals.
	-	5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two-wire.
	-	15	video plays one (or two) audio 15 kHz signal(s).

* Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(B) Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performances.

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9

\+ For those interface codes with a 4-wire transmission path at the customer designated POT, rather than a standard 900 ohm impedance the code (3) denotes a customer-provided transmission equipment termination. Such terminations were provided to customers in accordance with the F.C.C. Docket No. 20099 Settlement Agreement.

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces

The following tables show the channel interface codes (CIs) which are compatible:

(1) Voice Grade

Compatible CIs		Compatible CIs		Compatible CIs	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2	2DX3	2LA2	2LS	2GS
	4DS8		2LB2		2LS
	4DX2		2LC2		4GS
	4DX3		2LO3		4LS
	4DY2		2LS2		
	4EA2-E		2LS3	2LS2	2LA2
	4EA2-M				2LB2
	4SF2	2GO2	2GS2		2LC2
	4SF3		2GS3		
	6DX2			2LS3	2LA2
	6DY2	2GO3	2GS2		2LB2
	6DY3		2GS3		2LC2
	6EA2-E				
	6EA2-M	2GS	2GS	2NO2	2DA2
	6EB2-E		2LS		2NO2
	6EB2-M		4GS		
	6EB3-E		4LS	2NO3	2NO2
	8EB2-E				2PR2
	8EB2-M	2L02	2LS2		
	8EC2		2LS3	2TF3	2TF2
	9DY2				
	9DY3	2L03	2LS2		
	9EA2		2LS3		
	9EA3				

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
4AB2	2AC2 4AB2 4AC2 4SF2				
4AB3	2AC2 4AC2 4SF2				
4AC2	2AC2 4AC2				
		4DS8-	2AC2 2DA2 2DY2 2GO2	4DS8-	4DG2 4LR2 4LS2 4NO2
4DA2	4DA2		2GO3 2GS2		4PR2 4RV2-T
4DB2	2DA2 2NO2 2PR2 4DA2 4DB2 4NO2 4PR2 6DA2		2GS3 2LA2 2LB2 2LC2 2LO2 2LO3 2LR2 2LS2 2LS3		4SF2 4SF3 4TF2 6DA2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible Cis	
4DD3	2DE2		2NO2		6EB2-M
	4DE2		2PR2		6GS2
			2RV2-T		6LS2
			2TF2		8EB2-E
			4AC2		8EB2-M
			4DA2		9DY2
			4DE2		9DY3
			4DX2		9EA2
			4DX3		9EA3
			4DY2		
			4EA2-E		
			4EA2-M		
4DX2	2DY2	4DX2	8EB2-E	4DX3	6DY2
	2LA2		8EB2-M		6DY3
	2LB2		9DY2		6EA2-E
	2LC2		9DY3		6EA2-M
	2LO3		9EA2		6EB2-E
	2LS2		9EA3		6EB2-M
	2LS3				6LS2
	2RV2-T	4DX3	2DY2		8EB2-E
	4DX2		2LA2		8EB2-M
	4DY2		2LB2		9DY2
	4EA2-E		2LC2		9DY3
	4EA2-M		2LO3		9EA2
	4LS2		2LS2		9EA3
	4RV2-T		2LS3		
	4SF2		2RV2-T	4DY2	2DY2
	4SF3		4DX2		4DY2
	6DY2		4DX3		
	6DY3		4DY2		
	6EA2-E		4EA2-E		
	6EA2-M		4EA2-M		
	6EB2-E		4LS2		
	6EB2-M		4RV2-T		
	6LS2		4SF2		
			4SF3		

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
4EA2-E	2DY2	4EA3-E	2DY2	4GO2	2GO2
	4DY2		4DY2		2GO3
	4EA2-E		4EA2-E		2GS2
	4EA2-M		4EA2-M		2GS3
	4SF2		4SF2		4GS2
	6DY2		6DY2		4SF2
	6DY3		6DY3		6GS2
	6EB2-E		6EA2-E		
	6EB2-M		6EA2-M	4GO3	2GO2
	8EB2-E		6EB2-E		2GS2
	8EB2-M		6EB2-M		2GS3
	9DY2		8EB2-E		4GS2
	9DY3		9EB2-M		4SF2
			9DY2		6GS2
4EA2-M	2DY2		9DY3		
	4DY2		9EA2		
	4EA2-M		9EA3	4GS	2GS
	4SF2				2LS
	6DY2				4GS
	6DY3				4LS
	6EB2-E				
	6EB2-M				
	8EB2-E				
	8EB2-M				
	9DY2				
	9DY3				

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs	
4LO2	2LS2
	2LS3
	4LS2
	4SF2
	6LS2
4LO3	2LS2
	2LS3
	4LS2
	4SF2
	6LS2
4LR2	2LR2
	4LR2
	4SF2
4LR3	2LR2
	4LR2
	4SF2
4LS	2GS
	2LS
	4GS
	4LS
4LS2	2LA2
	2LB2
	2LC2
	2LO2
	2LO3

Compatible CIs	
4LS3	2LA2
	2LB2
	2LC2
	2LO2
	2LO3
	4SF2
4NO2	2DA2
	2DE2
	2NO2
	4DA2
	4DE2
	4NO2
	6DA2
4RV2-0	2RV2-T
	4RV2-T
	4SF2
4SF2	2AC2
	2DY2
	2GS2
	2GS3
	2LA2
	2LB2
	2LC2

Compatible CIs	
4SF2	2LO3
	2LR2
	2LS2
	2LS3
	2RV2-T
	4AC2
	4DY2
	4LS2
	4RV2-T
	4SF2
	6DY2
	6DY3
	6GS2
	9DY2
	9DY3
4SF3	2DY2
	2GO3
	2GS2
	2GS3
	2LA2
	2LB2
	2LC2
	2LO3
	2LR2

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
4SF3	2LS2	6DA	4DA2	6DY3	2DY2
	2LS3		6DA2		4DY2
	2RV2-T				6DY2
	4DY2	6DX2	2DY2		6DY3
	4EA2-E		4DY2		
	4EA2-M		4EA2-E	6EA2-E	2AC2
	4GS2				
	4LR2		4EA2-M		2DY2
	4LS2		4SF2		2LA2
	4RV2-T		6DY2		2LB2
	4SF2		6DY3		2LC2
	4SF3		6EA2-E		2LO3
	6DY2		6EA2-M		2LS2
	6DY3		6EB2-E		2LS3
	6EB2-E		6EB2-M		2RV2-T
	6EB2-M		8EB2-E		4AC2
	6GS2		8EB2-M		4DY2
	6LS2		9DY2		4EA2-E
	9DY2		9DY3		4EA2-M
	9DY3		9EA2		4LS2
	9EA2		9EA3		4RV2-T
	9EA3				4SF2
		6DY2	2DY2		4SF3
4TF2	2TF2		4DY2		6DY2
	4TF2		6DY2		6DY3
					6EA2-E
					6EA2-M

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
6EA2-E	6EB2-E	6EA2-M	6DY2	6EB3-E	2DY2
	6EB2-M		6DY3		4DY2
	6LS2		6EA2-M		4EA2-E
	8EB2-E		6EB2-E		4EA2-M
	8EB2-M		6EB2-M		4SF2
	9DY2		6LS2		6DY2
	9DY3		8EB2-E		6DY3
			8EB2-M		6EA2-E
6EA2-M	2AC2		9DY2		6EA2-M
	2DY2		9DY3		8EB2-E
	2LA2				8EB2-M
	2LB2	6EB2-E	2DY2		9DY2
	2LC2		4DY2		9DY3
	2LO3		4SF2		9EA2
	2LS2		6DY2		9EA3
	2LS3		6DY3		
	2RV2-T		6EB2-E	6EX2-A	2GS2
	4AC2		6EB2-M		2GS3
	4DY2		9DY2		2LS2
	4EA2-E		9DY3		2LS3
	4EA2-M				4GS2
	4LS2	6EB2-M	2DY2		4LS2
	4RV2-T		4DY2		4SF2
	4SF2		4SF2		6GS2
	4SF3		6DY2		6SL2
			6DY3		
			6EB2-M		
			9DY2		
			9DY3		

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
6EX2-B	2GO3	8EB2-E	2AC2	8EB2-M	2AC2
	2LA2		2DY2		2DY2
	2LB2		2LA2		2LA2
	2LC2		2LB2		2LB2
	2LO2		2LC2		2LC2
	2LO3		2LO3		2LO3
	2LR2		2LS2		2LS2
	4LR2		2LS3		2LS3
	4SF2		2RV2-T		2RV2-T
			4AC2		4AC2
6GO2	2GO2		4DY2		4DY2
	2GS2		4LS2		4LS2
	2GS3		4RV2-T		4RV2-T
	4GS2		4SF2		4SF2
	4SF2		4SF3		4SF3
	6GS2		6DY2		6DY2
			6DY3		6DY3
6LO2	2LS2		6EB2-E		6EB2-E
	2LS3		6EB2-M		6EB2-M
	4LS2		6LS2		6LS2
	4SF2		8EB2-E		8EB2-M
	6LS2		8EB2-M		9DY2
			9DY2		9DY3
6LS2	2LA2		9DY3		
	2LB2				
	2LC2				
	2LO2				
	2LO3				
	4SF2				

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(1) Voice Grade (Continued)

Compatible CIs		Compatible CIs		Compatible CIs	
8EC2	2DY2	9DY2	2DY2	9EA3	2DY2
	4DY2		4DY2		4DY2
	4EA2-E		6DY2		4EA2-E
	4EA2-M		6DY3		4EA2-M
	4SF2		9DY2		6DY2
	6DY2				6DY3
	6DY3	9DY3	2DY2		6EA2-E
	6EA2-E		4DY2		6EA2-M
	6EA2-M		6DY2		6EB2-E
	6EB2-E		6DY3		6EB2-M
	6EB2-M		9DY2		8EB2-E
	8EB2-E		9DY3		8EB2-M
	8EB2-M				9DY2
	9DY2	9EA2	2DY2		9DY3
	9DY3		4DY2		9EA3
	9EA2		4EA2-E		
	9EA3		4EA2-M		
			6DY2		
			6DY3		
			6EA2-E		
			6EA2-M		
			6EB2-E		
			6EB2-M		
			8EB2-E		
			8EB2-M		
			9DY2		
			9DY3		
			9EA2		
			9EA3		

ACCESS SERVICES

14. **ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS** (Continued)

14.2 Special Access Service (Continued)

14.2.2 Network Channel Interface (NCI) Codes (Continued)

(C) Compatible Channel Interfaces (Continued)

(2) Digital Data

Compatible CIs	Compatible CIs	Compatible CIs	
4DS8-15	4DS8-15*	4DU5-24	4DU5-24
	4DU5-24		
	4DU5-48	4DU5-48	4DU5-48
	4DU5-56		
	4DU5-96	4DU5-96	4DU5-96
	6DU5-24		
	6DU5-48	4DU8-56	4DU5-56
	6DU5-96		

Compatible CIs	Compatible CIs	
6DU5-24	6DU5-24	
6DU5-48	6DU5-48	
6DU5-56	6DU5-56	
6DU5-96	6DU5-96	

* Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company hub.

(3) High Capacity

Compatible CIs		Compatible CIs	
4DS0-63	4DS0-63	4DS8-15J	4DU8-A
	4DU8-A, B, or C		6DU8-A
	6DU8-A, B, or C		
		4DS8-15K	4DU8-B
4DS6-27	4DS6-27		4DU8-C
	4DU8-A, B, or C		6DU8-B
	6DU8-A, B, or C		6DU8-C
4DS6-44	4DS6-44	4DS8-31	4DS8-31
	4DU8-A, B, or C		4DU8-A, B, or C
	6DU8-A, B, or C		6DU8-A, B, or C
4DS8-15	4DS8-15*	4DU8-A, B, or C	4DU8-A, B, or C
	4DU8-B		
	6DU8-8		

* Available only as a cross connect of two individual channels of 1.544 Mbps facilities at a Telephone Company hub.

15. Operating Territory

15.1 The operating territory of the Telephone Company comprises the following locations, defined by the names of rate centers located in New Hampshire:

Alton
Barnstead
Center Barnstead
Gilmanton Iron Works (T)
New Durham