## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: May 18, 2015 Effective: July 1, 2015

By: Vice President

Little Rock, Arkansas

In compliance with PA PUC Order entered on April 23, 2015 at Docket M-2012-2291824 and FCC Order released on November 18, 2011.

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 8

This supplement is in compliance with the Pennsylvania Public Utility Commission's Order entered on April 23, 2015, at Docket M-2012-2291824 which implements the Federal Communications Commission's Order of November 18, 2011. Specifically, this supplement implements Step 4 access charge revisions.

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: May 19, 2014 Effective: July 1, 2014

By: Vice President

Little Rock, Arkansas

In compliance with PA PUC Order entered on April 23, 2014 at Docket M-2012-2291824 and FCC Order released on November 18, 2011.

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 6

This supplement is in compliance with the Pennsylvania Public Utility Commission's Order entered on April 23, 2014, at Docket M-2012-2291824 which implements the Federal Communications Commission's Order of November 18, 2011. Specifically, this supplement implements Step 3 access charge revisions.

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: May 16, 2013 Effective: July 2, 2013

By: Vice President

Little Rock, Arkansas

In compliance with PA PUC Order entered on April 18, 2013 at Docket M-2012-2291824 and FCC Order released on November 18, 2011.

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 6

This supplement is in compliance with the Pennsylvania Public Utility Commission's Order entered on April 18, 2013, at Docket M-2012-2291824 which implements the Federal Communications Commission's Order of November 18, 2011. Specifically, this supplement implements Step 2 access charge revisions.

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: May 17, 2012 Effective: July 3, 2012

By: Vice President

Little Rock, Arkansas

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 5

The purpose of this filing is to reduce the carrier common line charge in compliance with the Pennsylvania Public Utility Commission's Order entered on May 10, 2012, at Docket M-2012-2291824 which implements the Federal Communications Commission's Order of November 18, 2011.

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: December 23, 2011 Effective: February 21, 2012

By: Vice President

Little Rock, Arkansas

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: July 31, 2009 Effective: August 10, 2009

By: Vice President

Little Rock, Arkansas

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 3

The purpose of this filing is to modify General Regulations concerning Jurisdictional Reporting Requirements when originating number information is not available.

Supplement No. 2 to Telephone - PA P.U.C. No. 8

## WINDSTREAM PENNSYLVANIA, LLC

#### Rates and Rules

Governing the Furnishing of Intrastate Access Service

In

Pennsylvania

Issued: January 23, 2009 Effective: February 2, 2009

By: Vice President

Little Rock, Arkansas

Whenever in this Tariff the name, Windstream Pennsylvania, Inc., Windstream Pennsylvania or Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to Windstream Pennsylvania, LLC.

## CHANGES MADE BY SUPPLEMENT 2

The purpose of this filing is to modify General Regulations and Access Ordering language in accordance with changes made at the interstate level.

Issued: January 23, 2009 Effective: February 2, 2009

Issued By: Vice President
4001 Rodney Parham Road

Little Rock, AR 72212

First Revised Title Page 1 Cancels Original Title Page 1

## WINDSTREAM PENNSYLVANIA, LLC

**(C)** 

# REGULATIONS AND SCHEDULE OF INTRASTATE CHARGES APPLYING TO INTRASTATE ACCESS SERVICE WITHIN THE STATE OF PENNSYLVANIA

This tariff cancels and supercedes the ALLTEL Pennsylvania, Inc. PA P.U.C. No. 6 Intrastate Access Tariff

Issued: March 3, 2008 Effective: March 4, 2008

By: Mike Rhoda, Vice President 4001 Rodney Parham Road Little Rock, AR 72212

Whenever in this Tariff the name Windstream Pennsylvania, Inc., Windstream Pennsylvania or	<b>(C)</b>
Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to	<b>(C)</b>
Windstream Pennsylvania, LLC.	<b>(C)</b>

This Tariff Establishes Rates and Regulations for Intrastate Access Service

## **CHANGES MADE BY SUPPLEMENT 1**

This supplement changes the Company name from Windstream Pennsylvania, Inc. to Windstream Pennsylvania, LLC.

Issued: March 3, 2008 Effective: March 4, 2008

Issued By: Vice President

4001 Rodney Parham Road Little Rock, AR 72212

## WINDSTREAM PENNSYLVANIA, LLC

## **(C)**

# REGULATIONS AND SCHEDULE OF INTRASTATE CHARGES APPLYING TO INTRASTATE ACCESS SERVICE WITHIN THE STATE OF PENNSYLVANIA

PA P.U.C. Tariff No. 8 cancels and supercedes the ALLTEL Pennsylvania, Inc. PA P.U.C. No. 6 Intrastate Access Tariff

Issued: March 3, 2008 Effective: March 4, 2008

By: Mike Rhoda, Vice President 4001 Rodney Parham Road Little Rock, AR 72212

Whenever in this Tariff the name Windstream Pennsylvania, Inc., Windstream Pennsylvania or
Windstream appears, or the term "Company" appears, that reference shall be deemed to refer to
Windstream Pennsylvania, LLC.

(C)

This Tariff Establishes Rates and Regulations for Intrastate Access Service

## SUPPLEMENT NO. 8 TO TELEPHONE PA P.U.C. No. 8

## WINDSTREAM PENNSYLVANIA, LLC

8th Revised Title Sheet 2 Cancels 7th Revised Title Sheet 2

## INTRASTATE ACCESS SERVICES TARIFF

# **LIST OF MODIFICATIONS**

	<u>Issue Date</u>	Effective Date	
Name Change, Original Issue	July 13, 2006	July 17, 2006	
Name Change	March 3, 2008	March 4, 2008	
General Regulations and Access Ordering Language Modifications	January 23, 2009	February 2, 2009	
General Regulations	July 31, 2009	August 10, 2009	
Identification and Rating of VoIP-PSTN Traffic	December 23 2011	February 21, 2012	
Carrier Charge Reduction (per FCC Order of 11/18/11)	May 17, 2012	July 3, 2012	
Carrier Charge Reduction (per FCC Order of 11/18/11) - Step 2	May 16, 2013	July 2, 2013	
Carrier Charge Reduction (per FCC Order of 11/18/11) - Step 3	May 19, 2014	July 1, 2014	
Carrier Charge Reduction (per FCC Order of 11/18/11) - Step 4	May 18, 2015	July 1, 2015	(C)

ISSUED: May 18, 2015 EFFECTIVE: July 1, 2015

6<sup>th</sup> Revised Checksheet 1 Cancels 5<sup>th</sup> Revised Checksheet 1

## INTRASTATE ACCESS SERVICES TARIFF

## **Check Sheet**

Original and revised pages are as named below and contain all changes from the original tariff that are in effect on the date hereof.

hereof.					
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	Revision		Revision		Revision
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14	Original	47	Original	9	Original
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ISSUED: May 19, 2014 EFFECTIVE: July 1, 2014

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ISSUED: January 23, 2009 EFFECTIVE: February 2, 2009

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## **Check Sheet**

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D	Number of Revision Except as	D.	Number of Revision Except as	D.	Number of Revision Except as
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ISSUED: July 13, 2006 EFFECTIVE: July 17, 2006

## **Check Sheet**

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4	Original	40	Original	22	Original
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6	Original	42	Original	24	Original
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17	Original		•	35	Original
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20	Original	2	First	38	Original
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32	Original	14	Original	50	Original
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34	Original	16	Original	52	Original
35	Original	17	Original	53	Original

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## **Check Sheet**

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	Revision		Revision		Revision
	Except as		Except as		Except as
<u>Page</u>	<u>Indicated</u>	Page	<u>Indicated</u>	<u>Page</u>	<u>Indicated</u>
Section 17					
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# WINDSTREAM PENNSYLVANIA, INC.

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# WINDSTREAM PENNSYLVANIA, LLC

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#### INTRASTATE ACCESS SERVICES TARIFF

**CONCURRING CARRIERS** 

NO CONCURRING CARRIERS

**CONNECTING CARRIERS** 

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

REGISTERED SERVICE MARKS REGISTERED TRADEMARKS

NONE NONE

(C) Indicates Change

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#### INTRASTATE ACCESS SERVICES TARIFF

## **EXPLANATION OF SYMBOLS**

(C) - To signify changed regulation

(D) - To signify decrease (C)

(I) - To signify increase

## **EXPLANATION OF ABBREVIATIONS**

ADA - Abbreviated Dialing Arrangement

AML - Actual Measured Loss

ANI - Automatic Number Identification

AP - Program Audio

AT&T - American Telephone and Telegraph Company

BHMC - Busy Hour Minutes of Capacity
CCS - Common Channel Signaling
CDP - Customer Designated Premises

CI - Channel Interface

CNP - Charge Number Parameter

CO - Central Office Cont'd - Continued

CPE - Customer Provided Equipment

CPN - Calling Party Number CSP - Carrier Selection Parameter

DA - Directory Assistance

dB - decibel

dBrnC - Decibel Reference Noise C-Message Weighting dBrnCO - Decibel Reference Noice C-Message Weighted O

dc - direct current

DDD - Direct Distance Dialing

EAS - Extended Area Service
EDD - Envelope Delay Distortion
EML - Expected Measured Loss

EPL - Echo Path Loss ERL - Echo Return Loss

ESS - Electronic Switching System

ESSX - Electronic Switching System Exchange

f - frequency

FCC - Federal Communications Commission

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## EXPLANATION OF ABBREVIATIONS (Cont'd)

HC - High Capacity

Hz - Hertz

IC - Interexchange Carrier
 ICB - Individual Case Basis
 ICL - Inserted Connection Loss
 kbps - kilobits per second

kHz - kilohertz

LATA - Local Access and Transport Area

ma - milliamperes

Mbps - Megabits per second

mcs - Microsecond MHz - Megahertz

MRC - Monthly Recurring Charge

MT - Metallic

MTS - Message Telecommunications Service(s)

NPA - Numbering Plan Area NRC - Nonrecurring Charge

NXX - Three-Digit Central Office Prefix

PBX - Private Branch Exchange

PIC - Presubscribed Interexchange Carrier

POT - Point of Termination SAC - Service Access Code

SNAL - Signaling Network Access Line

SP - Signaling Point

SPOI - Signaling Point of Interface

SRL - Singing Return Loss
SSP - Service Switching Point
SS7 - Signaling System 7
STP - Signal Transfer Point
SWC - Serving Wire Center
TG - Telegraph Grade

TLP - Transmission Level Point

TV - Television VG - Voice Grade

V & H - Vertical & Horizontal

WATS - Wide Area Telecommunications Service(s)

WSC - Wireless Switching Center WSO - WATS Serving Office

## **REFERENCE TO OTHER TARIFFS**

Whenever reference is made of the FCC the PSC should be substituted. This tariff has been filed as an intrastate version of an interstate tariff. Should there be discrepancies or minor irregularities, the intent of the tariff shall apply.

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.

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

National Exchange Carrier Association, Inc. Special Construction Tariff F.C. C. No. 3 National Exchange Carrier Association, Inc. Wire Center Information Tariff F.C.C. No. 4

## REFERENCE TO TECHNICAL PUBLICATIONS

The following technical publications are referenced in this tariff and may be obtained from Bell Communications Research, Inc. Customer Services, 60 New England Avenue., Piscataway, NJ 08854-4196.

Technical Reference:

Multiple Exchange Carrier Access Billing (MECAB) Guidelines

Issued: June 1994

Multiple Exchange Carrier Ordering and Design (MECOD) Guidelines

Issued: May 1994

PUB 41004 Data Communications Using Voiceband Private Line Channels

Issued: October, 1973

PUB 62310 (MDP-326-726) Digital Data System Channel Interface Specification

Issued: September, 1983

PUB 62411 High Capacity Digital Service Channel Interface

Issued: September, 1983, Addendum October 1984

TR-NPL-000258 Compatibility Information for Feature Group D Switched Access Service

Issued: October 1985

TR-NWT-000334 Issue 2 Voice Grade Switched Access Service - Transmission Parameter Limits and

Interface Combinations

Issued: September, 1990

## REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

TR-TSY-000335, Issue 2 Voice Grade Special Access - Transmission Parameter Limits and Interface

Combinations

Issued: May, 1990

TR-NPL-000336 Metallic and Telegraph Grade Special Access Services Transmission Parameter Limits

and interface combinations

Issued: October, 1987

TR-NPL-000337 Program Audio Special Access Service and Local Channel Services

Issued: July 1987

TR-NPL-000338 Television Special Access and Local Channel Services Transmission Parameter Limits

and Interface Combinations

Issued: December 1986

TR-NWT-000341 Digital Data Special Access Service - Transmission Parameter Limits and Interface

Combinations

Issued: Issue 2, February 1993

TR-INS-000342 High Capacity Digital Special Access Service

Issued: February, 1991

SR-STS-000307 Issue 5 NC/NCI Code Dictionary

Issued: May, 1994

TR-TSY-000506 LATA Switching Systems Generic Requirements (LSSGR)

Section 6

Issued: October 1987, Revised December 1988, Revised June 1990

TR-NPL-000054 High Capacity Digital Service (1.544 Mbs) Interface Generic Requirements for End Users

Issued: April 1989 Available: April 1989

TR-TSV-000905 Common Channel Signaling Network Interface Specification Supplement 1

Available: August 1989

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

Telecommunications Transmission Engineering

Volume 3 - Networks and Services (Chapter 6 and 7)

Second Edition, 1980

Issued: June, 1980

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#### INTRASTATE ACCESS SERVICES TARIFF

## REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

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

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

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

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

Issued: July 1990 Available: August 1990

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

Issued: July 1990 Available: August 1990

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

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

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

AT&T PUB 62310

(and its Addendum 2 and Addendum 3)

Available: October 1989

## 1. **Application of Tariff**

- 1.1 This tariff contains regulations, rates and charges applicable to the provision of Carrier Common Line, Switched Access, Special Access, Public Packet Data Network, and other miscellaneous services, hereinafter referred to collectively as service(s). These services are provided to customers by the Issuing Carriers of this tariff, hereinafter the Telephone Company. This tariff also contains Access Ordering regulations and charges that are applicable when these services are ordered or modified by the customer
- 1.2 The provision of such services by the Telephone Company as set forth in this tariff does not constitute a joint undertaking with the customer for the furnishing of any service.

# 2. <u>General Regulations</u>

## 2.1 Undertaking of the Telephone Company

## 2.1.1 <u>Scope</u>

- (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) <u>Assignment or Transfer of Services</u>

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

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.2 <u>Limitations</u> (Cont'd)

## (A) <u>Assignment or Transfer of Services (Cont'd)</u>

In all cases of assignment or transfer, the written acknowledgment of the Telephone Company is required prior to such assignment or transfer. This acknowledgement shall be made within 15 days from the receipt of notification. All regulations and conditions contained in this 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) <u>Use and Restoration of Services</u>

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

## (C) Sequence of Provisioning

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

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

# 2. <u>General Regulations</u> (Cont'd)

## 2.1 Undertaking of the Telephone Company (Cont'd)

## 2.1.3 <u>Liability</u>

## (A) <u>Limits of Liability</u>

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.

## (B) Acts or Omissions

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) Damages to Customer Premises

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

## (D) <u>Indemnification of Telephone Company</u>

# (1) <u>By the End User</u>

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:

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

## 2. <u>General Regulations</u> (Cont'd)

# 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.3 <u>Liability</u> (Cont'd)

## (D) <u>Indemnification of Telephone Company</u> (Cont'd)

## (1) By the End User (Cont'd)

- (B) 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 users or customer or;
- (C) All other claims arising out of any act or omission of the end user in the course of using services provided pursuant to this tariff.

## (2) By the Customer

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:

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

## (E) Explosive Atmospheres

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.3 Liability (Cont'd)

## (F) No License Granted

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.

## (G) <u>Circumstances Beyond the Telephone Company's Control</u>

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

## 2.1.4 Provision of Services

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

#### 2.1.5 Facility Terminations

The services provided under this tariff will include any entrance cable or drop wiring and wire or intrabuilding cable to that point where provision is made for termination of the Telephone Company's outside distribution network facilities at a suitable location inside a customer-designated premises. Such wiring or cable will be installed by the Telephone Company to the Point of Termination. Moves of the Point of Termination at the customer designated premises will be as set forth in 6.4.4 and 7.4.4 following.

## 2. <u>General Regulations</u> (Cont'd)

## 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.6 Service Maintenance

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, substitute, change or rearrange any facilities used in providing service under this tariff. Such actions may include, without limitation:

- substitution of different metallic facilities,
- substitution of carrier or derived facilities for metallic facilities used to provide other than metallic facilities
- substitution of metallic facilities for carrier or derived facilities used to provide other than metallic facilities.
- substitution of fiber or optical facilities,
- change of minimum protection criteria,
- change of operating or maintenance characteristics of facilities, or
- change of operations or procedures of the Telephone Company.

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

# 2. General Regulations (Cont'd)

## 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.8 Refusal and Discontinuance of Service

- (A) If a customer fails to comply with 2.1.6 preceding (Service Maintenance) or 2.3.1, 2.3.4, 2.3.6, 2.4 1 or 2.5 following (respectively, Damages, Availability for Testing, Balance, Payment Arrangements, Connection) including any customers failure to make payments on the date and times therein specified, the Telephone Company may, on (30) days written notice to the customer by Certified U.S. Mail, take the following actions:
  - refuse additional applications for service and/or refuse to complete any pending orders for service, and/or
  - discontinue the provision of service to the customer.

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

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

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

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

## 2. General Regulations (Cont'd)

## 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

# 2.1.8 Refusal and Discontinuance of Service (Cont'd)

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

## 2.1.9 <u>Notification of Service-Affecting Activities</u>

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 the following:

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

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

# 2. General Regulations (Cont'd)

# 2.1 <u>Undertaking of the Telephone Company</u> (Cont'd)

## 2.1.10 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 manmade disasters which affect telecommunications services.

## 2.1.11 Provision and Ownership of Telephone Numbers

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

## 2. General Regulations (Cont'd)

## 2.2 <u>Use</u>

## 2.2.1 <u>Interference or Impairment</u>

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.

## 2.2.2 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. General Regulations (Cont'd)

## 2.3 Obligations of the Customer

## 2.3.1 <u>Damages</u>

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. The equipment shall be returned in as good condition as reasonable wear will permit.

## 2.3.3 Equipment Space and Power

The customer shall furnish or arrange to have furnished to the 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 facilities used to provide services.

## 2.3.4 Availability for Testing

Access to facilities used to provide services 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. As set forth in 2.4.4(C)4 following no credit will be allowed for any interruptions involved during such tests and adjustments.

# 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.5 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.

## 2.3.6 Balance

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

## 2.3.7 Design of Customer Services

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

## 2.3.8 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. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.9 Claims and Demands for Damages

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

## 2.3.10 Coordination with Respect to Network Contingencies

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

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

# 2.3.11 Jurisdictional Report and Certification Requirements

## (A) Certification Requirements - Special Access and Public Packet Data Network

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

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

# (B) <u>Disputes Involving Jurisdictional Certification - Special Access and</u> Public Packet Data Network

If a dispute arises concerning the certification of projected interstate traffic as described above, the Telephone Company will ask the customer to provide the data the customer used to determine that more than ten percent of the traffic is interstate. The customer shall supply the data within thirty (30) days of the Telephone Company request. If the reply results in a jurisdictional change of a Special Access Service Public Packet Data Network, the effective date of the change will be the date the Telephone Company receives the customer's reply. There is no charge when the customer's reply results in a jurisdictional change in the Special Access or Public Packet Data Network services. No changes will be made to existing intrastate percentages until the requested detail has been provided to warrant such change.

## (C) Jurisdictional Reports - Switched Access

For Switched Access Service, the Telephone Company cannot in all cases determine the jurisdictional nature of customer traffic and its related access minutes. In such cases the customer may be called upon to provide a projected estimate of its traffic, split between the interstate and intrastate jurisdictions. The following regulations govern such estimates, their reporting by the customer and cases where the Telephone Company will develop jurisdictional percentages.

# 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)

## (C) <u>Jurisdictional Reports - Switched Access</u> (Cont'd)

#### (1) General

When a customer initially orders Switched Access Service, the customer shall state in its order the Percent Interstate Usage (PIU), Percent Intrastate InterLATA Usage (PIIU) and Percent Local or Nonaccess Usage (PLU) on a state wide, LATA or billing account number level (at the option of the customer) on a local exchange company specific basis, separately for each of the following:

- Feature Group A (FGA)
- Feature Group B (FGB)
- Feature Group D (FGD)
- 500 Service Access
- 700 Service Access
- 800/888/877 Service Access
- 900 Service Access
- Switched Entrance Facilities
- Switched Direct Trunk Transport
- Switched Transport Multiplexing Equipment
- Carrier Identification Parameter (CIP)

The factor's provided for each of the foregoing facilities categories (Switched Entrance Facilities, Switched Direct Trunk Transport, Switched Transport Multiplexing Equipment and CIP) shall reflect the combination of all traffic types which traverse such facility category.

Additionally, upon employing to 700 Service Access Code over Feature Group D Switched Access Services, the customer must provide the Company factors for the 700 calls. A PIU of less than one-hundred percent is not allowed in those LATA's where the service is not available as an intrastate access service. The customer shall report the factors on a statewide, LATA or billing account number level (at the option of the customer) on a local exchange company specific basis.

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

# 2.3.11 <u>Jurisdictional Report Requirements</u> (Cont'd)

## (C) <u>Jurisdictional Reports - Switched Access</u> (Cont'd)

#### (1) General (Cont'd)

The customer shall furnish to the Company annually a report of factors on a statewide, LATA or billing account number level (at the option of the customer) on a local exchange company specific basis, separately for each of the services listed previously in 2.3.11 (C)(1). The customer, at its own option, may report revised factors more frequently if a change warrants an update before the annual period. These updates should be made to the Telephone Company on the first day of the next available quarter (January, July or October). The annual report of revised factors should be received by the first of March of each year. The revised factors will be implemented July 1, and will serve as the factors for the next twelve months billing. If the customer does not supply the report, the Telephone Company may assume the percentages to be the same as those provided in the last report. For those cases in which a report has never been received from the customer, the Telephone Company may assume the percentages to be the same as those provided in the order for service as set forth in (2) following.

When Special Access service is provided on a Switched Access Facility, e.g., Special Access DS1 on a Switched Access DS3, the facility will be apportioned between Switched Access and Special Access. The jurisdiction of the Special Access service shall reflect the composite of the jurisdiction of the lower capacity services, if any, of which it is comprised.

Pursuant to Federal Communications Commission Order FCC 85-145 released April 16, 1985, interstate usage is to be developed as though every call that enters a customer network at a point within the same state as that in which the called station (as designated by the called station number) is situated, is an intrastate communication and every call for which the point of entry is in a state other than that where the called station (as designated by the called number) is situated is an interstate communication.

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

# 2.3.11 <u>Jurisdictional Report Requirements</u> (Cont'd)

## (C) <u>Jurisdictional Reports - Switched Access</u> (Cont'd)

#### (1) General (Cont'd)

The PIUs described in (2) through (3) following are applied to associated usage rated elements and services, e.g., Information Surcharge, Local Switching, Tandem Switched Transport, Tandem Switching and Transport Interconnection charges. The PIUs are also used to develop the carrier charges. Separate PIUs are required for flat rated Entrance Facilities, Direct Trunked Transport and Mulitplexers.

- (a) There may be some portion of terminating minutes where it is not possible to know and therefore to send, the needed originating number information. A "floor" of 7.00 percent (%) will be set for terminating minutes lacking originating numbers for all switched access customers.
  - (1) When the percentage of terminating traffic without sufficient call detail to determine jurisdiction does not exceed the sum of the floor plus a 2.00 percent (%) grace threshold or 9.00 percent (%), the Telephone Company will apply the PIU factor, either provided by the customer or as set forth in section (C)(1).
  - (2) When the percentage is greater than 9.00 percent (%), the Telephone Company will assess rates from this tariff on all minutes exceeding the floor. For example, if 30 percent (%) of a customer's terminating minutes sent to the Telephone Company do not contain sufficient originating information to allow the Telephone Company to determine the originating location, then the Telephone Company would apply the provisions of this tariff to those minutes exceeding the floor, or 23 percent (%) in this example.

In the event that the Telephone Company applies rates to terminating calls without originating number information as provided in this tariff, customers will have the opportunity to request backup documentation of the Telephone Company's basis for such application, and further request that the Telephone Company change the application of the intrastate access rate upon a showing by the customer of why the intrastate rate should not be applied.

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.11 <u>Jurisdictional Report Requirements</u> (Cont'd)

# (C) <u>Jurisdictional Reports - Switched Access</u> (Cont'd)

## (2) Feature Groups A and B

- (a) When a customer orders Feature Group A and/or Feature Group B Switched Access Service the customer shall, in its order, state the projected factors for each Feature Group A and/or Feature Group B Switched Access Service group ordered. The term group shall be construed to mean single lines or trunks as well. If the customer adds or discontinues some but not all of the Feature Group A and/or Feature Group B Switched Access Services in a group, it shall provide revised factors for the overall services provided. The revised factors will serve as the basis for future billing and will be effective on the next bill date.
- (b) For multiline hunt group or trunk group arrangements where either the interstate or the intrastate charges are based on measured usage, the factors for Feature Group A and/or Feature Group B Switched Access Service(s) information reported as set forth in (a) preceding will be used to determine the charges.

# (3) <u>Feature Groups C and D</u>

When a customer orders Feature Group C or Feature Group D Switched Access Service(s) the customer may provide factors for each service in its order. Alternatively the Telephone company, where the jurisdiction can be determined from the call detail, will determine the jurisdiction for each service in its order.

## 2. <u>General Regulations</u> (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.11 <u>Jurisdictional Report Requirements</u> (Cont'd)

## (C) <u>Jurisdictional Reports - Switched Access</u> (Cont'd)

## (3) Feature Groups C and D

The Telephone Company, where the jurisdiction can not be determined from the call detail, will determine the jurisdiction as follows:

- When originating call details are insufficient to determine the jurisdiction for the call (e.g. 800/888/877 Access Service), the customer must supply the factors.
- For terminating access minutes, the customer may supply the factors or the customer may allow the originating access minute usage to be used to develop the factors for such terminating access minutes. Customers choosing not to supply factors for terminating Feature Group C or D Switched Access service may continue to allow the Company to develop factors based upon the percentage for originating access minutes. These percentages shall be used by the Company as the factors for such call detail.
- For Switched Entrance Facilities, Switched Direct Trunk Transport, Switched Transport Multiplexing and CIP the customer must utilize total usage traversing the specific facilities to develop the projected factors for such dedicated switched transport service.

#### (D) <u>Billing Disputes Involving Jurisdictional Reports - Switched Access</u>

For Switched Access, if a billing dispute arises, the Telephone Company will ask the customer to provide the usage the customer used to determine the factors. The customer shall supply the data within thirty (30) days of the Telephone Company request. The customer shall keep, for a minimum of 12 months, records of call detail which support the factors and upon request of the Telephone Company provide the information for purposes of verification of the factors. At a minimum for annual revisions, the information used by the Customer to support the factors must reflect usage (either actual or a representative sample) for each quarter of the prior calendar year. No change will be made to existing factors until the detail has been provided to warrant such change. If the Customer refuses to provide supporting information, a default PIU of 50% and PIIU of 50% will be used.

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

# 2.3.12 <u>Determination of Intrastate Charges for Mixed Interstate and Intrastate Switched Access Service</u>

When mixed interstate and intrastate Switched 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 percentage determined as set forth in 2.3.11 (C) preceding will serve as the basis for prorating the charges unless the Telephone Company is billing according to actuals by jurisdiction. The percentage of an Access Service to be charged as intrastate is applied in the following manner:

## (A) Monthly and Nonrecurring Charges

For monthly and nonrecurring chargeable rate elements, multiply the intrastate factors use times the quantity of chargeable elements times the stated tariff rate per element.

#### (B) Usage Sensitive Charges

For usage sensitive (i.e., access minutes and calls) chargeable rate elements, multiply the intrastate factors times actual use (i.e., measured or Telephone Company assumed average use) times the stated tariff rate.

The intrastate factors may change as revised usage reports are submitted as set forth in 2.3.11 preceding.

# 2.3.13 <u>Determination of IntraLATA Charges for Mixed InterLATA and IntraLATA</u> Switched Access Service

When mixed interLATA and intraLATA Switched Access Service is provided, all charges (i.e., nonrecurring, monthly, and usage) including optional feature charges, will be prorated between interLATA and intraLATA in the same manner as described in 2.3.11 preceding.

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#### INTRASTATE ACCESS SERVICES TARIFF

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

## 2.3.14 Identification and Rating of VoIP-PSTN Traffic

- (A) Scope
  - (1) VoIP-PSTN traffic is defined as traffic exchanged over the public switched telephone network ("PSTN") facilities that originates and/or terminates in Internet protocol ("IP") format. This section governs the identification of toll VoIP-PSTN ("toll VoIP") traffic that in the absence of an interconnection agreement will be subject to interstate switched access rates in accordance with the Federal Communications Commission Report and Order in WC Docket Nos. 10-90, etc., FCC Release No. 11-161 (Nov. 18, 2011) ("FCC Order") as it may hereinafter be amended or clarified. Specifically, this section establishes the method of distinguishing toll VoIP traffic from the customer's total intrastate access traffic, so that toll VoIP traffic will be billed in accordance with the FCC Order.
  - (2) This section will be applied to the billing of switched access charges to a customer that is a local exchange carrier only to the extent that the customer has also implemented billing of interstate access charges for VoIP-PSTN Traffic in accordance with the FCC Order.
- (B) Rating of toll VoIP-PSTN traffic

The Telephone Company will bill toll VoIP-PSTN traffic which it identifies in accordance with this tariff section at rates equal to the Telephone Company's applicable tariffed interstate switched access rates.

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

The Telephone Company will determine the number of toll VoIP traffic minutes of use ("MOU") to which it will apply its interstate rates under subsection (B), above, by applying an originating Percent VoIP Usage ("OPVU") factor to the total intrastate access MOU originated by a Telephone Company end user and delivered to the customer and by applying a terminating PVU ("TPVU") factor to the total intrastate access MOU terminated by a customer to the Telephone Company's end user. The OPVU and TPVU will be derived and applied as follows:

(1) The customer will calculate and furnish to the Telephone Company an OPVU factor, along with supporting documentation, representing the whole number percentage of the customer's total originating intrastate access MOU that the customer receives from the Telephone Company in the State that is originated by the Telephone Company in IP format.

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Section 2 Original Sheet 19.2

## INTRASTATE ACCESS SERVICES TARIFF

## 2. General Regulations (Cont'd)

## 2.3 Obligations of the Customer (Cont'd)

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

- (C) Calculation and Application of Percent-VoIP-Usage Factor (Cond't)
  - (2) The customer will calculate and furnish to the Telephone Company a TPVU factor, along with supporting documentation, representing the whole number percentage of the customer's total terminating intrastate access MOU that the customer exchanges with the Telephone Company in the State that is sent to the Telephone Company and originated in IP format.
  - (3) The OPVU, TPVU and supporting documentation shall be based on information that is verifiable by the Telephone Company including but not limited to the number of the customer's retail VoIP subscriptions in the state (*e.g.*, as reported on FCC Form 477), traffic studies, actual call detail, or other relevant and verifiable information. The customer shall not modify its reported PIU factor to account for VoIP-PSTN traffic.
  - (4) After the Telephone Company verifies the OPVU and TPVU provided by the customer the Telephone Company will apply the OPVU and TPVU factors to the associated intrastate access MOU as indicated in Sections (D) and/or (E) below.

In the event that the Telephone Company can not verify the customer's OPVU and/or TPVU, the Telephone Company will request additional information to support the OPVU and/or TPVU, during this time no changes will be made to the existing OPVU and /or TPVU. The customer shall supply the requested additional information within 15 days of the Telephone Company's request or no changes will be made to the existing OPVU and/or TPVU. If after review of the additional information, the customer and Telephone Company establish a revised and mutually agreed upon OPVU and/or TPVU factor, the Telephone Company will begin using the new factor with the next bill period.

If the dispute is unresolved the customer may request that verification audits be conducted by an independent auditor, at customer's sole expense. During the audit, the most recent undisputed OPVU and/or TPVU factor will be used by the Telephone Company.

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Section 2 Original Sheet 19.3

#### INTRASTATE ACCESS SERVICES TARIFF

## 2. General Regulations (Cont'd)

# 2.3 Obligations of the Customer (Cont'd)

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

## (D) Initial OPVU and TPVU Factor

In calculating the initial OPVU and TPVU factor(s), the Telephone Company will take the factor(s) provided by the customer into account retroactively to January 1, 2012, *provided that* the customer provides the factor(s) and supporting documentation, as specified in subsection (C) above to the Telephone Company no later than 15 days after the effective date of this tariff. If the customer does not furnish the Telephone Company with an OPVU and/or TPVU factor pursuant to the preceding subsection (C), the initial factor will be zero.

## (E) OPVU and TPVU Factor Updates

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

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## 2. General Regulations (Cont'd)

#### 2.4 Payment Arrangements and Credit Allowances

## 2.4.1 Payment of Rates, Charges and Deposits

## (A) Deposits

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

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

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

#### (B) Bill Dates

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

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

## (B) <u>Bill Dates</u> (Cont'd)

## (1) End User Access Service and Presubscription

For End User Access Service and Presubscription Service, the Telephone Company will establish a bill day each month for each end user account or advise the customer in writing of an alternate billing schedule. Alternate billing schedules shall not be established on less than 60 days notice or initiated by the Telephone Company more than twice in any consecutive 12 month period. The bill will cover End User Access Service charges for the ensuing billing period except for End User Access Service for the Federal Government which will be billed in arrears. Any applicable Presubscription Charges, any known unbilled charges for prior periods and any known unbilled adjustments for prior periods for End User Access Service and Presubscription Service will be applied to this bill. Such bills are due when rendered.

# (2) <u>Access Services Other than End User and Presubscription</u>

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

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

## (C) Payment Dates and Late Payment Penalties

(1) All bills dated as set forth in (B)(2) preceding for service, other than End User Service and Presubscription 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 the customer does not receive a bill at least 20 days prior to the 31 day payment due date, then the bill shall be considered delayed. When the bill has been delayed, upon request of the customer the due date will be extended by the number of days the bill was delayed. Such request of the customer must be accompanied with proof of late bill receipt.

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

If the payment date falls on a Sunday or on a Legal Holiday which is observed on a Monday, the payment date shall be the first non-Holiday day following such Sunday or Legal Holiday.

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

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

- (C) Payment Dates and Late Payment Penalties (Cont'd)
  - (2) Further, if no payment is received by the payment date or if a payment or any portion of a payment is received by the Telephone Company after the payment date as set forth in (1) preceding, or if a payment or any portion of a payment is received by the 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 payment or the portion of the payment not received by the payment date times a late factor. The late factor shall be the lesser of:
    - (a) the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the payment date to and including the date that the customer actually makes the payment to the Telephone Company, or
    - (b) 0.000590 per day, compounded daily for the number of days from the payment date to and including the date that the customer actually makes the payment to the Telephone Company.

# (D) <u>Valid Billing Dispute</u>

A valid billing dispute consists of written documentation specifically listing the total dollar amount of the dispute, specific rate elements being disputed and their dollar amounts. The dispute must be received in writing within 30 days after the due date of the bill. At least one of the seven following reasons must be given for the dispute to be considered valid.

- 1. Incorrect rate
- 2. Error in quantity (i.e., minutes or quantity of circuits incorrect.)
- 3. Service no longer exists.
- 4. Invalid factors
- 5. Incorrect customer being billed.
- 6. Invalid Purchase Order Number (PON)

7. Backbilling

## 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) <u>Valid Billing Disputes</u> (Cont'd)

Refusal to pay an entire bill or any portion thereof without written supporting documentation, will not be considered a valid dispute and will be handled as a non payment in accordance with Section 2.4.1(C) above.

## (E) Billing Disputes Resolved in Favor of the Telephone Company

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

## (F) Billing Disputes Resolved in Favor of the Customer

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

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

- (1) the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the first date to and including the last date of the period involved, or
- (2) 0.000590 per day, compounded daily for the number of days from the first date to and including the last date of the period involved.

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(C)

(C)

#### (G) Rounding of Charges

(C)

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 <u>Minimum Periods</u>

The minimum period for which services are provided and for which rates and charges are applicable is one month except for those usage rated services set forth in Section 6. (Switched Access Service) and 9. (Directory Assistance Service) and those services set forth in 6.1.3 (Switched Access High Capacity DS3 Entrance Facility and High Capacity DS3 Direct Trunked Transport), 7.2.1, (Part-time Video and Program Audio), and 7.2.2 (High Capacity DS1 and DS3 Service or as otherwise specified.

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

ISSUED: January 23, 2009

EFFECTIVE: February 2, 2009

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.2 <u>Minimum Periods</u> (Cont'd)

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

- (A) When a service with a one month minimum period is discontinued prior to the expiration of the minimum period, a one month charge will apply at the rate level in effect at the time service is discontinued.
- (B) When a service with a minimum period greater than one month is discontinued prior to the expiration of the minimum period, except for DS3 monthly service and DS1, DS3 Optional Rate Plans as provided for in Sec. 5.5.1 and 7.2.2 following, the applicable charge will be the lesser of (1) the Telephone Company's total nonrecoverable costs less the net salvage value for the discontinued service or (2) the total monthly charges, at the rate level in effect at the time service is discontinued, for the remainder of the minimum period.

## 2.4.3 Cancellation of an Order for Service

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

## 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 6.2.1 following. An interruption period starts when an inoperative service is reported to the Telephone Company, and ends when the service is operative.

## 2. <u>General Regulations</u> (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

## 2.4.4 Credit Allowance for Service Interruptions

## (B) When a Credit Allowance Applies (Cont'd)

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

For Digital Data Access, SD Codes D1 through D4 and High Capacity, HC1, Special Access Services, any period during which the error performance is below that specified for the service will be considered as an interruption.

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

Credit allowances are computed as follows:

# (1) <u>Special Access Service other than Program Audio and Video and flat rated</u> <u>Switched Access Service rate elements</u>

For Special Access Services other than Program Audio and Video Services and for flat rated Switched Access Service rate elements (i.e., Entrance Facility, Direct Trunked Transport and Multiplexing), no credit shall be allowed for an interruption of less than 30 minutes. The customer shall be credited for an interruption of 30 minutes or more at the rate of 1/1440 of the monthly charges for the facility or service for each period of 30 minutes or major fraction thereof that the interruption continues.

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

## (a) <u>Two-point Services</u>

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

## (b) <u>Multipoint Services</u>

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

## 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.4 Credit Allowance for Service Interruptions (Cont'd)

## (B) When a Credit Allowance Applies (Cont'd)

(1) <u>Special Access Service other than Program Audio and Video and flat rated</u> <u>Switched Access Service rate elements, (Cont'd)</u>

# (c) <u>Multiplexed Services</u>

For multiplexed services, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service that is inoperative. When the facility which is multiplexed or the multiplexer itself is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with the service (i.e., the channel termination, channel mileage, Entrance Facility, Direct Trunked Transport, and optional features and functions, including the multiplexer on the facility to the hub, and the channel terminations, channel mileages and optional features and functions on the individual services from the hub). When the service which rides a channel of the multiplexed facility is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service from the hub to a customer premises (i.e., channel termination, channel mileage, Direct Trunked Transport, and optional features and functions).

## (d) Flat rated Switched Access rate elements

For flat rated Switched Access Service rate elements, the monthly charge shall be the total of all the monthly rate element charges associated with the service (i.e., Entrance Facility, Direct Trunked Transport and Multiplexing).

# (e) <u>Public Packet Data Network Services</u>

For Public Packet Data Network Service rate elements, the monthly charge shall be the total of all monthly rate element charges associated with the service (i.e., End User Port, Access Customer Port, and Permanent Virtual Connections).

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.4 <u>Credit Allowance for Service Interruptions</u> (Cont'd)

- (B) When a Credit Allowance Applies (Cont'd)
  - (2) Program Audio and Video Special Access Services

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

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

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.4 <u>Credit Allowance for Service Interruptions</u> (Cont'd)

## (B) When a Credit Allowance Applies (Cont'd)

#### (3) Switched Access and Directory Assistance Service Usage Rated Elements

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

## (4) <u>Credit Allowances Cannot Exceed Monthly Rate</u>

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

## (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.

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.4 <u>Credit Allowance for Service Interruptions</u> (Cont'd)

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

- (5) Interruptions of a service which continue because of the failure of the customer to authorize replacement of any element of special construction, as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. NO. 3 for SPECIAL CONSTRUCTION. The period for which no credit allowance is made begins on the seventh day after the customer receives the Telephone Company's written notification of the need for such replacement and ends on the day after receipt by the Telephone Company of the customer's written authorization for such replacement.
- (6) Periods when the customer elects not to release the service for testing and/or repair and continues to use it on an impaired basis.
- (7) An interruption or a group of interruptions, resulting from a common cause, that would result in credit in an amount less than one dollar.

# (D) <u>Use of an Alternative Service Provided by the Telephone Company</u>

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 (Cont'd)

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

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

## (A) Nonrecurring Charges Do Not Apply

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

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

#### (B) Nonrecurring Charges Apply

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

## 2.4.6 Title or Ownership Rights

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

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

# 2.4.7 Access Services Provided By More Than One Telephone Company

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

# (A) Non Meet Point Billing/Feature Group A

Non Meet Point Billing under a Revenue Sharing Agreement is the generally accepted billing method for Feature Group A Switched Access Service. At the agreement of the participating Telephone Companies, Meet Point Billing may apply to jointly provided Feature Group A services as set forth in (B) following.

# (1) Single Company Billing/Revenue Sharing

All Telephone Companies jointly providing Feature Group A service will receive an order or a copy of the order, from the customer, as specified in 5.3.1(A) following. The telephone company that provides the dial tone will arrange to provide the service, determine the applicable charges and bill the customer for the entire service in accordance with its Access Services tariff as provided for under a Feature Group A Revenue Sharing Agreement.

## 2. <u>General Regulations</u> (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

#### (B) Meet Point Billing

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

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

For usage rated access services the access minutes of use will generally be determined by the recording company. Where the recording company is not the Bill Rendering Company, the recording company will provide detailed usage records to the Bill Rendering Company to develop the access minutes.

The Bill Rendering Company in a single bill arrangement for Feature Groups B, C, and D Switched Access Services, is normally the end user's end office, for WATS usage the Bill Rendering Company is normally the WATS Serving Office, for Directory Assistance, the Bill Rendering Company is normally the Directory Assistance Location. The name of the Bill Rendering Company will be included in the meet point billing notification provided to the customer by all the telephone companies on all meet point billed services.

The non Bill Rendering Company(s) is any Telephone Company(s) in whose territory a segment of the Local Transport or Channel Mileage is provided and/or where the customer's Point of Termination is located.

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

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

# 2. General Regulations (Cont'd)

# 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

# (B) Meet Point Billing (Cont'd)

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

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

# (1) Single Bill Option

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

- Single Bill/Multiple Tariff
- Single Bill/Pass Through Billing, and
- Single Bill/Single Tariff

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

# 2. General Regulations (Cont'd)

# 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

# (B) Meet Point Billing (Cont'd)

## (1) Single Bill Option (Cont'd)

#### (a) Single Bill/Multiple Tariff

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

The Bill Rendering Company will:

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

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

## (B) Meet Point Billing (Cont'd)

#### (1) Single Bill Option (Cont'd)

## (b) Single Bill/Pass-Through Billing

The single bill/pass-through bill is compiled by the Bill Rendering Company. Each Telephone Company will prepare a bill for its portion of the access service and forward it to the Bill Rendering Company. Normally, these connecting telephone company bills are forwarded to the Bill Rendering Company without usage to eliminate possible delays.

Each non Bill Rendering Company will:

- prepare its own bill;
- determine its rates and charges for Local Transport, Directory Transport and/or Channel Mileage as set forth in (3) following;
- determine and include all applicable recurring and nonrecurring rates and charges of its access tariff; and
- forward the bill to the Bill Rendering Company for the meet point access service.

# The Bill Rendering Company will:

- apply usage data, when needed, to the bills and calculate the charges;
- combine all the bills of the involved Telephone Companies providing the meet point access service;
- forward the bill to the customer; and
- advise the customer how to remit the payment, either directly to each Telephone Company involved in the provision of this meet point billed service; or, as a single payment made to the Bill Rendering Company. If payments are to be sent directly to the Bill Rendering Company, the non Bill Rendering Company(s) will provide the customer with written authorization for the payment arrangement.

# 2. General Regulations (Cont'd)

# 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

## (B) Meet Point Billing (Cont'd)

## (1) <u>Single Bill Option</u> (Cont'd)

#### (c) Single Bill/Single Tariff

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

The Bill Rendering Company will:

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

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

# (2) Multiple Bill Option

Under the Multiple Bill Option each company providing the access service will render an access bill to the customer for its portion of the service based on its access tariff rates and regulations. For switched access Multiple bills, the end office company is generally the Initial Billing Company (IBC). The IBC is the company that calculates the access minutes to be billed to the customer and provides this data to each connecting company providing service, i.e., the Subsequent Billing Company(s). Each company, IBC and SBC, will:

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

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

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

- (B) Meet Point Billing (Cont'd)
  - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges</u>

Each Telephone Company's portion of the Local Transport, Directory Transport and Channel Mileage will be developed as follows:

- (a) Determine the appropriate Local Transport or Channel Mileage by computing the number of airline miles between the Telephone Company premises (end office, access tandem or serving wire centers for Switched Access or serving wire centers for Special Access) using the V&H method set forth respectively in 6.4.6 and 7.4.6 following.
- (b) Determine the billing percentage (BP), as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4, which represents the portion of the service provided by each Telephone Company.
- (c) For Feature Groups A, B, C and D Tandem Switched Transport
  - multiply the number of originating and terminating access minutes of use routed over the facility times the number of airline miles, as set forth in (a) preceding, times the BP for each Telephone Company, as set forth in (b) preceding, times the Tandem Switched Facility or Local Transport Facility rate;
  - multiply the Tandem Switched Termination or Local Transport Termination rate times the number of originating and terminating access minutes routed over the facility.
  - When a tandem office is located within the operating territory of a
    Telephone Company multiply the Tandem Switching rate times the
    number of originating and terminating access minutes that are
    switched at the tandem.

The Tandem Switched Termination rate is applied as set forth in 6.1.3(A) following. The Switched Access Nonrecurring Charges are applied as set forth in 6.4.1(B) following. (Note: The BP is not applied to the Switched Access Tandem Switched Termination rate, Tandem Switching rate or any Nonrecurring Charge.)

# 2. General Regulations (Cont'd)

## 2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

- (B) Meet Point Billing (Cont'd)
  - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges</u> (Cont'd)
    - (d) For Feature Groups A, B, C, and D Direct Trunked Transport:
      - multiply the number of airline miles, as set forth in (a) preceding, times the BP for each Telephone Company, as set forth in (b) preceding, times the Direct Trunked Facility rate.
      - The Direct Trunked Termination rate is applied at each end of each measured segment of the Direct Trunked Facility (e.g., at the end office, hub, tandem and serving wire center) When the Direct Trunked Facility mileage is zero the Direct Trunked Termination rate will not apply. The Switched Access Nonrecurring Charges are applied as set forth in 6.4.1(B) following. (Note: The BP is not applied to either the Switched Access Direct Trunked Termination rate or any Nonrecurring Charge.)
    - (e) For Feature Groups A, B, C, and D.
      - When the end office (which may be a Remote Switching Module or WATS Serving Office) is located within the operating territory of a Telephone Company multiply the Residual Interconnection Charge rate times the number of originating and terminating access minutes that are switched at the end office.
      - When the Entrance Facility and/or Multiplexing equipment is located within the operating territory of a Telephone Company the Entrance Facility and/or Multiplexing charge will apply.
      - The Billing Percentage (BP) is not applicable to the Residual Interconnection charge, Entrance Facility or Multiplexer.

- 2. General Regulations (Cont'd)
  - 2.4 Payment Arrangements and Credit Allowances (Cont'd)
    - 2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)
      - (B) Meet Point Billing (Cont'd)
        - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges, (Cont'd)</u>
          - (f) For Special Access, multiply the number of airline miles, as set forth in (a) preceding, times the BP for each Telephone Company, as set forth in (b) preceding, times the Channel Mileage Facility rate for each circuit. For the Channel Mileage Termination, multiply the Channel Mileage Termination rate times each circuit. Do not apply the BP to Channel Mileage Termination. The specific Channel Mileage Facility and Channel Mileage Termination rates to be used are the rates for the mileage band that covers the total airline miles as set forth in (a) preceding.

The Special Access Channel Mileage Termination rate and nonrecurring charges are applied as set forth in 7.1.1(B) and 7.4.1(B) following. (Note: The BP is not applied to either the Channel Mileage Termination Recurring Rate or any Nonrecurring Charge.)

(g) For Directory Assistance Service, multiply the Directory Transport rate times the number of directory assistance calls times the BP for each Telephone Company, as set forth in (b) preceding.

The Directory Assistance Nonrecurring charge is applied as set forth in 9.4.1(B) following. (Note: The BP is not applied to any Nonrecurring Charge.)

(h) When three or more Telephone Companies are involved in providing an Access Service, the intermediate Telephone Company(s) will determine the appropriate charges as set forth in (c) through (g) preceding. Additionally, when a segment of the Tandem Switched Facility, Direct Trunked Facility or Channel Mileage Facility is measured to the intermediate office(s), the Tandem Switched Termination, Direct Trunked Termination or Channel Mileage Termination rates are also applied at the intermediate Telephone Company(s) office(s).

# 2. General Regulations (Cont'd)

# 2.4 Payment Arrangements and Credit Allowances (Cont'd)

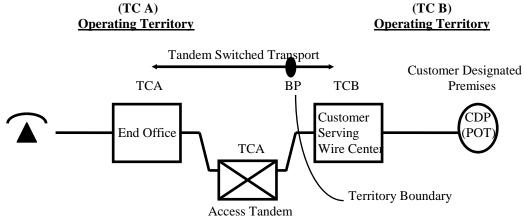
# 2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)

- (B) Meet Point Billing (Cont'd)
  - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges</u> (Cont'd)
    - (i) Example Switched Access

## Layout

- Feature Group D Switched Access is ordered to End Office A.
- End Office A is in operating territory of Telephone Company A.
- Customer designated premises is in operating territory of a Telephone Company (TC-B).

**Telephone Company B** 



BP = Billing Percentage

**Telephone Company A** 

- 2. General Regulations (Cont'd)
  - 2.4 Payment Arrangements and Credit Allowances (Cont'd)
    - 2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)
      - (B) Meet Point Billing (Cont'd)
        - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges (Cont'd)</u>
          - (i) Example Switched Access (Cont'd)

The following example reflects the rate calculations for TC-A.

Assume:

Airline miles (ALM) TC A premises to TC B Serving Wire Center = 22.1, rounded = 23.

Billing Percentage (BP)

TC A = 80%

TC B = 20%

Access Minutes (AM) = 9000

Tandem Switched Facility Rates = TSF

Tandem Switched Termination Rate = TST

Tandem Switching Rate = TS

Residual Interconnection Charge = RIC

Carrier Common Line Charge = CCL

End Office Charges = EO

- 2. General Regulations (Cont'd)
  - 2.4 Payment Arrangements and Credit Allowances (Cont'd)
    - 2.4.7 Access Services Provided by More Than One Telephone Company (Cont'd)
      - (B) Meet Point Billing (Cont'd)
        - (3) <u>Determination of Meet Point Billed Local Transport, Directory Transport and Channel Mileage Charges</u> (Cont'd)
          - (i) Example Switched Access (Cont'd)
            - Telephone Company A charges are:

Tandem Switched Facility charge = 9,000 min. x 23 mi. x 80% x TSF rate

Tandem Switched Termination charge = 9,000 min. x TST rate

Tandem Switching charge = 9,000 min. x TS rate

Residual Interconnection Charge = 9,000 min. x RIC rate

Carrier Common Line charge = 9,000 min. x CCL rate

End Office Charges = 9,000 min. x EO rates

# 2. General Regulations (Cont'd)

# 2.5 <u>Connections</u>

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

## 2. <u>General Regulations</u> (Cont'd)

#### 2.6 Definitions

Certain terms used herein are defined as follows:

# 800 Data Base Access Service

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

## 800 Series

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

## Access Code

The term "Access Code", with the exception of Feature Group B (FGB) with an Abbreviated Dial Arrangement (ADA), denotes a uniform access code assigned by the Telephone Company to an individual customer. The Carrier Access Code (CAC) has the form 101XXXX and the Carrier Identification Code (CIC) has the form 950-XXXX. Access codes for FGB with an ADA are explained in 6.9.2 following.

## Access Minutes

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

## Access Tandem

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

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## Add/Drop Multiplexing

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

# Aggregator

The term "Aggregator" denotes any entity that, in the ordinary course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services.

#### Answer/Disconnect Supervision

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

#### **Attenuation Distortion**

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

## Balance (100 Type) Test Line

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

# <u>Bit</u>

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

# **Business Day**

The term "Business Day" denotes the times of day that a company is open for business. Generally, in the business community, these are 8:00 or 9:00 A.M. to 5:00 or 6:00 P.M., respectively, with an hour for lunch, Monday through Friday, resulting in a standard forty (40) hour work week. However, Business Day hours for the Telephone Company may vary based on company policy, union contract and location. To determine such hours for an individual company, or company location, that company should be contacted at the address shown under the Issuing Carrier's name listed on Title Page 2.

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

# **Busy Hour Minutes of Capacity (BHMC)**

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

## Call

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

# Carrier or Common Carrier

See Interexchange Carrier.

## **CCS**

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

# Central Office

See End Office.

## Central Office Maintenance Technician

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

# Central Office Prefix

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

# 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.

## 2. <u>General Regulations</u> (Cont'd)

#### 2.6 Definitions (Cont'd)

## Channel Service Unit

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

#### Channelize

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

# Clear Channel Capability

The term "Clear Channel Capability" denotes the ability to transport twenty-four 64 Kbps over a DS1 Mbps High Capacity service via a B8ZS line code format.

# C-Message Noise

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

# C-Notched Noise

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

# **Committed Information Rate**

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

# Common Channel Signaling

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

(C)

(C)

## INTRASTATE ACCESS SERVICES TARIFF

# 2. General Regulations (Cont'd)

#### 2.6 <u>Definitions</u> (Cont'd)

## Common Line

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

## Communications System

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

# Customer(s)

The term "Customer(s)" denotes any individual, partnership, association, joint-stock company, trust, corporation, or governmental entity or other entity which subscribes to the services offered under this tariff, including but not limited to Interexchange Carriers (ICs), End Users and other telecommunications carriers or providers originating or terminating toll VoIP-PSTN traffic.

## **Customer Designated Premises**

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

#### Customer Node

The term "Customer Node" denotes the equipment located at a customer designated premises that terminates a high speed optical channel and converts the signal from an optical to an electrical format. Each electrical signal requires a discrete Customer Premises Port connection (i.e., DS1, DS3, STS-1) that allows for the provision of lower level digital signals.

# Data Transmission (107 Type) Test Line

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

ISSUED: December 23, 2011 EFFECTIVE: February 21, 2012

# 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 O

The term "Decibel Reference Noise C-Message Referenced to O" 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.

#### Digital Switched 56 Service

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

#### 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 or 555-1212.

## **Direct-Trunked Transport**

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

#### **Directory Assistance Location**

The term "Directory Assistance Location" denotes a Telephone Company office where telephone company equipment first receives the Directory Assistance call from the customer's end user and selects the first operator position to respond to the Directory Assistance call.

## 2. <u>General Regulations</u> (Cont'd)

#### 2.6 Definitions (Cont'd)

## Dual Tone Multifrequency Address Signaling

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

## Echo Control

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

## Echo Path Loss

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

#### Echo Return Loss

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

# Effective 2-Wire

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

#### Effective 4-Wire

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

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## **End Office**

The term "End 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. This term includes Remote Switching Modules/Systems served by a Host Central Office in a different wire center.

## End User

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

#### **Enhanced Service**

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

# **Entrance Facility**

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

# **Entry Switch**

See First Point of Switching

## **Envelope Delay Distortion**

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## 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)].

#### Exchange

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

#### Exit Message

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

## **Expected Measured Loss**

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

# Extended Area Service

See Exchange.

# Extended PVC

The term "Extended PVC" denotes the interconnection of a port on a NECA telephone company's frame relay switch with a port on another NECA or non-NECA interconnected telephone company's frame relay switch.

## 2. <u>General Regulations</u> (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

#### First Point of Switching

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

## **Frame**

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

#### Frame Relay Access Customer Port

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

#### Frame Relay Access Service

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

#### Frame Relay End User Port

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

## Frequency Shift

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## 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 Central Office

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

## <u>Hub</u>

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

#### Immediately Available Funds

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

## Impedance Balance

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

## Impulse Noise

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## **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.

#### Initial Address Message

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

#### **Inserted Connection Loss**

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

## Installation and Repair Technician

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

# Interexchange Carrier (IC) or Interexchange Common Carrier

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

## Intermediate Hub

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

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## Intermodulation Distortion

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

#### **Interstate Communications**

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

## **Intrastate Communications**

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

## Legal Holiday

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

# **Line Side Connection**

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

## Local Access and Transport Area (LATA)

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

# Local Area Network

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

# **Loss Deviation**

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

## 2. <u>General Regulations</u> (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## **Major Fraction Thereof**

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

## Message

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

## Milliwatt (102 Type) Test Line

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

## **Network Control Signaling**

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

## Nonsynchronous Test Line

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

# North American Numbering Plan

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

## Off-hook

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

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

## On-hook

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

#### Open Circuit Test Line

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

# Optical Carrier Channel

The term "Optical Carrier Channel" denotes the high speed optical communications path for transporting information utilizing a Synchronous Optical Channel platform. The channel is provided at transmission rates of 155.52 Mbps. (OC3) and 622.08 Mbps. (OC12).

## Optical Carrier Rate (OC-N)

The term "Optical Carrier Rate" denotes the line rate being transmitted on an optical carrier channel. A SONET transmission rate is equivalent to "N" times the OC1 line rate of 51.84 Mbps.

#### **Optical Line Termination**

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

## **Originating Direction**

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

## Pay Telephone

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

# Payphone Service Provider

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

# 2. General Regulations (Cont'd)

## 2.6 <u>Definitions</u> (Cont'd)

# Permanent Virtual Connection (PVC)

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

## Phase Jitter

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

## Point of Termination

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

## **Premises**

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

#### Release Message

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

## Remote Switching Modules/Systems

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

## Return Loss

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

## Registered Equipment

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

## 2. <u>General Regulations</u> (Cont'd)

#### 2.6 Definitions (Cont'd)

## Service Access Code

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

## Service Switching Point (SSP)

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

#### Serving Wire Center

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

#### Seven Digit Manual Test Line

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

## Shortage of Facilities or Equipment

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

#### Short Circuit Test Line

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

#### Signal-to-C-Notched Noise Ratio

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

# 2. General Regulations (Cont'd)

### 2.6 <u>Definitions</u> (Cont'd)

## Signaling Point (SP)

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

## Signaling Point of Interface (SPOI)

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

### Signaling Return Loss

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

# Signaling System 7 (SS7)

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

## Signal Transfer Point (STP)

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

#### Signal Transfer Point (STP) Port

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

### Special Order

The term "Special Order" denotes an order for a Directory Assistance Service.

#### Standard PVC

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

### Subtending End Office of an Access Tandem

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

### 2. <u>General Regulations</u> (Cont'd)

#### 2.6 Definitions (Cont'd)

## Super Intermediate Hub

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

# Synchronous Optical Network (SONET)

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

# Synchronous Test Line

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

## Synchronous Transport Signal (STS)

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

### **Tandem Switched Transport**

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

#### **Terminating Direction**

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

(C)

#### INTRASTATE ACCESS SERVICES TARIFF

### 2. General Regulations (Cont'd)

### 2.6 <u>Definitions</u> (Cont'd)

#### Terminus Hub

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

# **Throughput**

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

# Transmission Measuring (105 Type) Test Line/Responder

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

### Synchronous Test Line

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

#### Tandem-Switched Transport

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

#### **Terminating Direction**

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

#### Terminus Hub

A wire center at which bridging or multiplexing functions are performed only for Customers served directly by the same wire center.

#### Toll VoIP-PSTN Traffic (C)

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

# Transmission Measuring (105 Type) Test Line/Responder

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

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# 2. General Regulations (Cont'd)

### 2.6 <u>Definitions</u> (Cont'd)

### Transmission Path

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

### Trunk

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

### Trunk Group

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

#### Trunk Side Connection

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

# Two-Wire to Four-Wire Conversion

The term "Two-Wire to Four-Wire Conversion" denotes an arrangement which converts a four-wire transmission path to a two-wire transmission path to allow a four-wire facility to terminate 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.

# 2. General Regulations (Cont'd)

# 2.6 <u>Definitions</u> (Cont'd)

# WATS Serving Office

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

### Wireless Switching Center

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

# Wire Center

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

#### 3. **Carrier Common Line Access Service**

The Telephone Company will provide Carrier Common Line Access Service (Carrier Common Line Access) to customers in conjunction with Switched Access Service provided in Section 6. of this tariff.

#### 3.1 **General Description**

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.

A Special Access Surcharge, as set forth in 17.3.5 following, will apply to intrastate special access service provided by the Telephone Company to a customer, in accordance with regulations as set forth in 7.4.2 following.

#### 3.2 Limitations

#### 3.2.1 **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.

#### 3.2.2 **Access Groups**

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

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

#### 3.3 **Undertaking of the Telephone Company**

#### 3.3.1 **Provision of Service**

Where the customer is provided with Switched Access Service under other sections of this tariff, the Telephone Company will provide the use of Telephone Company common lines by the customer for access to end users at charges as set forth in 17.2.1 following.

#### 3.4 **Obligations of the Customer**

#### 3.4.1 **Supervision**

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

# 3. <u>Carrier Common Line Access Service</u> (Cont'd)

# 3.5 <u>Carrier Common Line Charge (CC)</u>

The CC charge represents a dollar amount, per access line, that the Telephone Company will collect from all toll providers. The Telephone Company will multiply the per line rate listed in Section 17.2.1 by the number of access lines for the month. This total represents the total intrastate CC amount to be recovered from toll providers. This amount will then be recovered from toll providers, based on their relative usage for the prior month.

4. Reserved for Future Use

# 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 Access, Special Access or Access Related Service or to provide changes to existing services.

The regulations, rates and charges for special construction are set forth in Windstream Pennsylvania, Inc. Tariff P.U.C. No. 1, Section 3 and are in addition to the regulations, rates and charges specified in this section.

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

The customer shall provide to the 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 Access 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.

# 5. Access Ordering (Cont'd)

### 5.1 General (Cont'd)

# 5.1.1 <u>Service Installation</u> (Cont'd)

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 Additional Labor Charges as set forth in 17.5.2 following.

When the Telephone Company has identified in NECA TARIFF F.C.C. NO. 4, Wire Center Information that it has not received a bona fide request for Direct Trunked Transport and a customer subsequently orders Direct Trunked Transport, the Telephone Company will work cooperatively with the customer to provide Direct Trunked Transport within 90 days of receipt of an order.

### 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 following 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 17.5.2 following.

To develop, determine and bill the customer the extraordinary costs which may be involved, the Special Construction terms and conditions as set forth in Windstream Pennsylvania, Inc. Tariff P.U.C. No. 1, Section 3 will be used by the Telephone Company. Authorization to incur the costs and to bill the customer will be in accordance with the terms and conditions of Windstream Pennsylvania, Inc. Tariff P.U.C. No. 1, Section 3.

When the request for expediting occurs subsequent to the issuance of the Access Order, a Service Date Change Charge as set forth in 17.1.4 following also applies.

# 5. Access Ordering (Cont'd)

# 5.1 General (Cont'd)

# 5.1.3 <u>Selection of Facilities for Access Orders</u>

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

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.

# 5. Access Ordering (Cont'd)

#### 5.2 Ordering Requirements

# 5.2.1 Switched Access Service

When ordering Switched Access service, the customer must specify whether the service is to be provided as (1) Direct Trunked Transport to the end office, (2) Direct Trunked Transport to a tandem which connects with Tandem Switched Transport from the tandem to the end office or (3) Tandem Switched Transport to the end office. When all or a portion of service is ordered as Direct Trunked Transport, the customer must specify the type and quantity of Direct Trunked Transport facility (e.g., Voice Grade or High Capacity DS1 or DS3).

The Customer must also specify the type of Entrance Facility to be used for Switched Access (e.g., Voice grade or High Capacity). For High Capacity Entrance Facilities, the customer must specify the facility assignment and the channel assignment for each trunk.

Direct Trunked Transport is available at all tandems and at all end offices except those end offices identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 as not having the capability to provide Direct Trunked Transport. Direct Trunked Transport is not available: (1) from end offices that provide equal access through a Centralized Equal Access arrangement, or (2) from end offices that lack recording or measurement capability.

Normally, Direct Trunked Transport of originating 800 series calls from an end office is available only from Service Switching Point (SSP) equipped end offices. However, certain SSP equipped end offices cannot accommodate the direct trunking of the 888 service access code. These end offices are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4. Additionally, certain non-SSP equipped end offices can accommodate direct trunking of originating 800 series calls. These end offices are also identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4.

When the customer has both Tandem Switched Transport and Direct Trunked Transport at the same end office, the customer will be provided Alternate Traffic Routing as set forth in 6.4.6 following.

A customer's Local Transport may be connected to the Entrance Facility of another customer, provided the other customer submits a Letter of Authorization for this connection and assumes full responsibility for the cost of the Entrance Facility.

# 5. Access Ordering (Cont'd)

# 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 Intrastate Use (PIU) 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 FGA access communications are transported to another LATA.

# 5. Access Ordering (Cont'd)

# 5.2 Ordering Requirements (Cont'd)

# 5.2.1 <u>Switched Access Service</u> (Cont'd)

### (B) <u>Feature Group B</u>

Orders 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 (PIU) 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 to another state.
- The access code dialing arrangement (i.e., a uniform access code of 950-XXXX or an Abbreviated Dialing Arrangement (ADA) access code of N or NX).
- For Feature Group B 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.

# 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.1 <u>Switched Access Service</u> (Cont'd)

## (C) Feature Group C, Feature Group D, Interim NXX Translation and SS7 Signaling

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.
- The number of BHMC or trunks required for or to be converted to an SS7 Signaling capability.
- Interim NXX Translation options.
- A projected factor as set forth in 2.3.11 preceding.
- 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 6.2.5 following.

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

# 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.1 <u>Switched Access Service</u> (Cont'd)

(C) Feature Group C, Feature Group D, Interim NXX Translation and SS7 Signaling (Cont'd)

Customers 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.

When Feature Group C or D is ordered with the Interim NXX Translation optional feature, the customer shall specify the Service Access Code(s) (e.g., 900) and their associated NXX code(s) to be translated within the entire LATA or Market Area. The initial and subsequent orders to add, change, or delete Interim NXX Translation codes shall be placed separately or in combination with orders to change Feature Group C or D Switched Access BHMC or trunks. Customer assigned NXX codes which have not been ordered will be blocked.

Orders for the Interim NXX Translation optional feature shall not be required until such time as a customer other than an MTS/WATS provider requests Interim NXX Translation of Service Access Codes. Upon receipt of such order, the Telephone Company shall notify the MTS/WATS provider of the activation of the Interim NXX Translation Service for the Service Access Code. Following such initial activation, all customers are required to place orders for Interim NXX Translation of the Service Access Code and the Interim NXX Translation charge for the Service Access Code shall apply as set forth in 17.1.7 following.

# 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.1 <u>Switched Access Service</u> (Cont'd)

### (D) <u>Directory Assistance</u>

Orders for Directory Assistance service shall be in BHMCs.

When placing an order for Directory Assistance service, the customer shall provide the following information:

- The number of BHMCs from the customer designated premises to the Directory Assistance location
- If Switched Access is required on the terminating end of the DA call, as set forth in Section 9. following, the Feature Group B, C or D Switched Access Service Trunk Group to be associated with the DA service.
- Directory Transport options.

The BHMC information is used to determine the number of transmission paths as set forth in 9.2.6 following.

## (E) <u>SS7 Optional Feature</u>

When Feature Group C or D is ordered with the SS7 optional feature, in addition to information listed in 5.2.1(C) preceding, the customer shall specify a reference to existing signaling connections or reference a related SS7 signaling connection order. When ordering SS7 signaling, the customer shall provide the Signaling Transfer Point codes, location identifier codes and circuit identifier codes. In addition, the customer shall work cooperatively with the Telephone Company to determine the number of SS7 signaling connections required to handle its signaling traffic.

For 800 Data Base Access Service, as described in 6.1.3(A) & (C) following, the customer must order FGC or FGD to those access tandems or end offices designated as Service Switching Points (SSP) for 800 Data base service or to those non-SSP equipped end offices that can accommodate direct trunking of originating 800 calls. SSP equipped end offices that can accommodate direct trunking of originating 800 calls are designated in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC NO. 4, WIRE CENTER INFORMATION. Certain SSP equipped end offices that cannot accommodate direct trunking of originating 888 calls are designated in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC NO. 4, WIRE CENTER INFORMATION. All traffic originating from end offices not equipped to provide SS7 signaling and routing, not able to accommodate direct trunking of originating 800 series calls or equipped with SS7 signaling but not able to accommodate direct trunking of originating 888 calls, require routing via an access tandem where SSP functionality is available.

# 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.2 Special Access Service

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

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

A service inquiry is a request to the Telephone Company to determine if facilities exist to provide the service ordered and to determine the service date on which service can be provided to the customer.

Where the Special Access Service is exempt from the Special Access Surcharge, as set forth in 7.4.2 following the customer shall furnish written certification to that effect as set forth in 7.4.2 following.

When ordering bridging and/or multiplexing, the Customer must specify the telephone company hub(s) from which they desire service. The Customer must specify only those hubs that provide the type of service ordered and interconnect with the wire center(s) from which the customer requires service. The Wire Center section of National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 identifies hub types (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 Tariff F.C.C. No. 4 identifies wire centers and the Intermediate and/or Super-Intermediate Hubs with which they interconnect.

There is one Special Access Optional Rate Plan: a High Capacity Optional Rate Plan. The High Capacity Optional Rate Plan consists of a Term Discount Plan.

# 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.2 <u>Special Access Service</u> (Cont'd)

When ordering High Capacity Term Discount Optional Rate plan or upgrades to the plan, discontinuance charges, as specified in 7.2.8 (A)(1) following, will not apply if the conditions set forth in 7.2.8 (A)(1) following are met and the customer provides the following ordering information:

Term Discounts-Upgrades in Capacity (DS1 to DS3)

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

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

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

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

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

### 5. Access Ordering (Cont'd)

### 5.2 Ordering Requirements (Cont'd)

# 5.2.3 WATS or WATS-Type Services

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

### 5.2.4 <u>Mixed Use Facilities - Switched and Special Access</u>

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 6.4.7 and 7.2.7 following. When placing the order for the individual service(s), the customer must specify a channel assignment for each service ordered.

# 5.2.5 <u>Miscellaneous Services</u>

Testing Service, Additional Labor, Telecommunications Service Priority and Special Facilities Routing shall be ordered with an Access Order may subsequently be added to a pending order at any time up to and including the service date for the access service. When miscellaneous services are added to a pending order a service date change may be required. When a service date change is required, the service date change charge as set forth in 17.1.4 following will apply. When miscellaneous services are added to a pending order, charges for a design change as set forth in 17.1.5 following will apply when an engineering review is required. If both a service date change and an engineering review are required, both the Service Date Change Charge and the Design Change Charge will apply as set forth in 5.4.3(B) following.

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 Additional Engineering as well as an estimate of the charges. If the customer agrees to the Additional Engineering, a firm order will be established. If the customer does not want the service or facilities after being notified that Additional Engineering of Telephone Company facilities is required, the order will be withdrawn and no charges will apply. Once a firm order has been established, the total charge to the customer for the Additional Engineering may not exceed the estimated amount by more than 10%.

# 5. Access Ordering (Cont'd)

### 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, Directory 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

## (A) Single Company Billing Ordering

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

For FGA Switched Access Services the customer will place the order with the Telephone Company in whose territory the first point of switching is located. The first point of switching is 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.

# 5. Access Ordering (Cont'd)

## 5.3 Access Orders For Services Provided By More Than One Telephone Company (Cont'd)

## 5.3.2 <u>Meet Point Billing Ordering</u>

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 NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4. Each Telephone Company will bill the customer for its portion of the service as set forth in 2.4.7. 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 the 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, (i.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 access through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. 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 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.
- (C) Customers ordering Special Access Service to be interconnected with Switched Access 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 Serving Office are located, if they are not collocated.

# 5. Access Ordering (Cont'd)

# 5.3 Access Orders For Services Provided By More Than One Telephone Company (Cont'd)

# 5.3.2 <u>Meet Point Billing Ordering</u> (Cont'd)

- (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 in whose territory the hub(s) is located.
- (F) For Directory Assistance Service, the customer must place an order with the Telephone Company in whose territory the Directory Assistance Location is located.
- (G) For initiation, additions, changes or deletions to the Interim NXX translation code(s), the customer must place an order with the Telephone Company who provides the Interim NXX Translation. The customer must also provide a copy of the order to the Telephone Companies subtending the Interim NXX Translation office.

# 5. Access Ordering (Cont'd)

### 5.4 Charges Associated with Access Ordering

# 5.4.1 Access Order Charge

The Access Order Charge, as set forth in Section 17.1.3, is applied to all customer requests for new Switched Access, and Directory Assistance Service. In addition, the Access Order Charge is applicable to customer requests for additions, changes or rearrangements to existing Special Access, Switched Access, and Directory Assistance 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 6.4.1(B)(3) and 7.2.2(C)(3) following.
- When a change to a pending order does not result in the cancellation of the pending order and the issuance of a new order.
- When Interim NXX Translation charge is applicable.
- When a Miscellaneous Service Order Charge is applicable.
- When a Presubscription Charge is applicable.
- When a Telephone Company initiated network reconfiguration requires a customer's existing access service to be reconfigured.
- When a service with an ICB rate is converted to a similar service with an non-ICB tariff rate prior to the expiration of the ICB.
- When a Billing Name and Address charge is applicable.
- When a 900 Blocking Service charge is applicable.

# 5. Access Ordering (Cont'd)

### 5.4 Charges Associated with Access Ordering (Cont'd)

# 5.4.1 Access Order Charge (Cont'd)

- When a customer requests a change of trunks from Tandem Switched Transport to Direct Trunked Transport or from Direct Trunked Transport to Tandem Switched Transport, or requests to rearrange Switched Access services between lower capacity and higher capacity facilities, (e.g., Voice Grade to/from DS1 or DS1 to/from DS3), providing:
- the orders to disconnect existing trunks and to connect the new trunks are placed at the same time, and
- the number of installed trunks does not exceed the number of trunks disconnected. If the number of installed trunks exceeds the number of trunks disconnected, the Access Order Charge will apply unless the customer provides justification based upon standard engineering methods to show that the additional capacity is required to maintain the same level of service.

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(B), 5.3.2, 5.3.2(B) and 5.3.2(G) preceding, except by the Telephone Company applying the Interim NXX Translation charge, 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. Access Ordering (Cont'd)

## 5.4 Charges Associated with Access Ordering (Cont'd)

# 5.4.2 Miscellaneous Service Order Charge

A Miscellaneous Service Order Charge, as set forth in 17.1.4 following, applies to any service, or combination of services, ordered simultaneously from Section 13. of the Tariff for which a service order is not already pending (with the exception of Presubscription (13.4), Billing Name and Address Service (13.9) and 900 Blocking Service (13.8) which does not have the charge applied). The Miscellaneous Service Order Charge is an administrative charge designed to compensate for the expenses associated with service order issuance.

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

- Overtime Repair (13.2.2),
- Standby Repair (13.2.3),
- Testing and Maintenance with Other Telephone Companies
- other than when in conjunction with Acceptance Testing (13.2.4),
- Other Labor (13.2.5),
- 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),
- Controller Arrangement [13.3.4(A)].

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)].
- Coin Supervision Additive Service (13.12).

# 5. Access Ordering (Cont'd)

## 5.4 Charges Associated with Access Ordering (Cont'd)

# 5.4.3 <u>Access Order Change Charges</u>

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 5.1.2 preceding. All charges for Access Order change as set forth in 17.1.3 will apply on a per occurrence basis.

Any increase in the number of Special Access Service channels or Switched Access Service lines, trunks, busy hour minutes of capacity or CCS/SS7 Port Terminations will be treated as a new Access Order (for the increased amount only).

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

# 5. Access Ordering (Cont'd)

## 5.4 Charges Associated with Access Ordering (Cont'd)

# 5.4.3 <u>Access Order Change Charges</u> (Cont'd)

### (A) Service Date Change

The customer may request a change of service date on a pending Access Order prior to the service date. A change of service date is a change of the scheduled service date by the customer to either an earlier date or a later date which does not exceed 30 calendar days from the original service date.

If the Telephone Company determines that the customer's request can be accommodated without delaying the service dates for orders of other customers, the service date will be changed and the Service Date Change Charge, as set forth in 17.1.4 following, 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 following. A new Access Order with a new service date will be issued. The Service Date Charge 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.

# 5. Access Ordering (Cont'd)

## 5.4 Charges Associated with Access Ordering (Cont'd)

# 5.4.3 <u>Access Order Change Charges</u> (Cont'd)

## (B) <u>Design Change</u>

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, or a change in the destination of PVC, speed of PVC, or speed of the end user port. 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 authorizes the Telephone Company to proceed with the design change, a Design Change Charge as set forth in 17.1.5 following will apply in addition to the charge for Additional Engineering as set forth in 17.5.1 following. If a change of service date is required, the Service Date Change Charge as set forth in 17.1.4 following will also apply. The Access Order Charge as specified in 17.1.3 following does not apply.

Section 5 (C) First Revised Sheet 22 Cancels Original Sheet 22

#### INTRASTATE ACCESS SERVICES TARIFF

## 5. Access Ordering (Cont'd)

# 5.5 Minimum Periods and Cancellations

## 5.5.1 Minimum Periods

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

The minimum period for Switched Access High Capacity DS3 Entrance Facilities and Direct Trunked Transport is as set forth in 6.1.3 following. The minimum period for High Capacity DS1 and DS3 is set forth in 7.2.8 following.

The minimum period for which Directory Assistance Service and the Directory Access Service is provided and for which charges apply is six months. A minimum period of six months applies for each additional period of service ordered or extended.

(C)

(C)

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

The Minimum Period Charge for part-time Video and Program Audio Services is the applicable daily rate for the appropriate channel type as set forth in 7.2.4 following.

The Minimum Period Charge for Directory Access Service is developed as set forth in 9.4.4 following.

ISSUED: January 23, 2009 EFFECTIVE: February 2, 2009

# 5. Access Ordering (Cont'd)

## 5.5 <u>Minimum Periods and Cancellations</u> (Cont'd)

# 5.5.3 <u>Cancellation of an Access Order</u>

- (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 cancelled. The verbal notice must be followed by written confirmation within 10 days. If a customer or a customer's end user is unable to accept Access Service within 30 calendar days after the original service date, the customer has the choice of the following options:
  - The Access Order shall be cancelled and charges set forth in (B) following will apply, or
  - Billing for the service will commence.

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

- (B) When a customer cancels an Access Order for the installation of service, a Cancellation Charge will apply as follows:
  - (1) Installation of Switched Access and Special Access 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 Access, Special Access, or ordered by the customer, as set forth in 5.5.2 preceding.

# 5. Access Ordering (Cont'd)

# 5.5 <u>Minimum Periods and Cancellations</u> (Cont'd)

# 5.5.3 <u>Cancellation of an Access Order</u> (Cont'd)

- (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, busy hour minutes of capacity CCS/SS7 Port Terminations will be treated as a partial cancellation and charges will be determined as set forth in 5.5.3(B) preceding.

### 6. Switched Access Service

#### 6.1 General

Switched Access Service is available to all customers, who have obtained a Certificate of Convenience and Necessity from the Pennsylvania Public Utility Commission, for their use in furnishing their services to end users. Switched Access Service provides a two-point communications path between a customer designated premises and an end user's premises. It provides for the use of common terminating, switching and trunking facilities, and for the use of common subscriber plant of the Telephone Company. Switched Access Service provides for the ability to originate calls from an end user's premises to a customer designated premises, and to terminate calls from a customer designated premises to an end user's premises in the LATA where it is provided. Specific references to material describing the elements of Switched Access Service are provided in 6.1.3 and 6.5 through 6.9 following.

Rates and charges for Switched Access Service depend generally on the specific Feature Group ordered by the customer, e.g., for MTS or WATS services or MTS/WATS equivalent services, and whether it is provided in a Telephone Company end office that is equipped to provide equal or non-equal access. Rates and charges for Switched Access Service are set forth in 17.2 following. The application of rates for Switched Access Service is described in 6.4 following. Rates and charges for services other than Switched Access Service, e.g., a customer's interLATA toll message service, may also be applicable when Switched Access Service is used in conjunction with these other services. Descriptions of such applicability are provided in 6.4.5, 6.4.9, 6.5.1(H), 6.5.3, 6.6.1(G), 6.6.2(D), 6.7.1(F) and 6.8.1(E) following. Finally, a credit is applied against line side Switched Access Service charges as described in 6.4.8 following.

# 6.1.1 Description and Provision of Switched Access Service Arrangements

#### (A) <u>Description</u>

Switched Access Service is provided in four different Feature Group arrangements which are service categories of standard and optional features. These are differentiated by their technical characteristics, e.g., line side vs. trunk side connection at the Telephone Company first point of switching. They are also differentiated by optional feature availability and the manner in which the end user accesses them in originating calling, e.g., with or without access codes of various lengths and digits.

The provision of each Feature Group requires Local Transport facilities, including an Entrance Facility where required, and the appropriate End Office functions. In addition, Special Access Service may, at the option of the customer, be connected with Feature Groups A, B, C, or D at Telephone Company designated WATS Serving Offices.

There are three specific transmission specifications (i.e., Types A, B and C) that have been identified for the provision of Feature Groups. The technical specifications for the Entrance Facility and Direct Trunked Transport are the same as those set forth in Section 7. following for Voice Grade and High Capacity services. The specifications provided are dependent on the Interface Group and the routing of the service, i.e., whether the service is routed directly to the end office or via an access tandem. The parameters for the transmission specifications are set forth in 15.1.2 following.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.1 <u>Description and Provision of Switched Access Service</u> Arrangements (Cont'd)

## (A) <u>Description</u> (Cont'd)

Feature Groups are arranged for either originating, terminating or two-way calling, based on the customer end office switching capacity ordered. Originating calling permits the delivery of calls from Telephone Exchange Service locations to the customer designated premises. Terminating calling permits the delivery of calls from the customer designated premises to Telephone Exchange Service locations. Two-way calling permits the delivery of calls in both directions, but not simultaneously. The Telephone Company will determine the type of calling to be provided unless the customer requests that a different type of directional calling is to be provided. In such cases, the Telephone Company will work cooperatively with the customer to determine the directionality.

There are various optional features associated with Local Transport, Common Switching and Transport Termination available with the Feature Groups. In addition, the Interim NXX Translation is available with Feature Group C and Feature Group D.

Detailed descriptions of each of the available Feature Groups are set forth in 6.5 through 6.9 following. Each Feature Group is described in terms of its specific physical characteristics and calling capabilities, the optional features available for use with it and the standard testing capabilities.

The Common Switching and Transport Termination optional features, which are described in 6.10 following, unless specifically stated otherwise, are available at all Telephone Company end office switches.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.1 <u>Description and Provision of Switched Access Service Arrangements</u> (Cont'd)

#### (B) Manner of Provision

Switched Access is furnished in either quantities of lines or trunks, or in busy hour minutes of capacity (BHMCs). FGA Access and FGB Access are furnished on a per-line or per-trunk basis respectively. FGC Access and FGD Access are furnished on a BHMC basis and a per trunk basis as set forth in 5.2 preceding.

BHMCs are differentiated by type and directionality of traffic carried over a Switched Access Service arrangement. Differentiation of traffic among BHMC types is necessary for the Telephone Company to properly design Switched Access Service to meet the traffic carrying capacity requirement of the customer.

There are three major BHMC categories identified as: Originating, Terminating and Directory Assistance. Originating BHMCs represent access capacity within a LATA for carrying traffic from the end user to the customer; Terminating BHMCs represent access capacity within a LATA for carrying traffic from the customer to the end user; and, Directory Assistance BHMCs represent access capacity within a LATA for carrying Directory Assistance traffic from the customer to a Directory Assistance location. When ordering capacity for FGC Access or FGD Access in BHMCs the customer must at a minimum specify such access capacity in terms of Originating BHMCs and/or Terminating BHMCs.

Because some customers will wish to further segregate their originating traffic into separate trunk groups or because segregation may be required by network considerations, originating BHMCs are further categorized into Domestic, 700, 800 series, 900, Operator, and IDDD. Domestic BHMCs represent access capability for carrying only domestic traffic other than 700, 800 series, 900 and Operator traffic; IDDD BHMCs represent access capacity for carrying only international traffic; and, 700, 800 series, 900 and Operator BHMCs represent access capacity for carrying, respectively, only 700, 800 series, 900 or Operator traffic. When ordering such types of access capacity, the customer must specify Domestic, 700, 800 series, 900, Operator or IDDD BHMCs.

### **6.1.2** Ordering Options and Conditions

Switched Access Service is ordered under the Access Order provisions set forth in 5.2 preceding. Also, included in that section are regulations concerning miscellaneous service order charges which may be associated with Switched Access Service ordering (e.g., Service Date Changes, Cancellations, etc.).

# 6. Switched Access Service (Cont'd)

# 6.1 General (Cont'd)

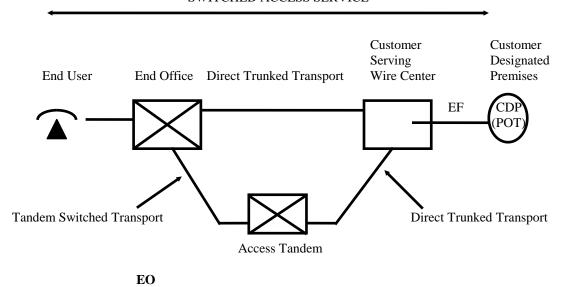
### 6.1.3 Rate Categories

There are four rate categories which apply to Switched Access Service:

- Local Transport (described in 6.1.3(A) following)
- End Office (described in 6.1.3(B) following)
- Chargeable Optional Features (described in 6.1.3(C) following)
- Common Line (described in Sections 3. preceding)

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.

# SWITCHED ACCESS SERVICE



LOCAL TRANSPORT

CL - Common Line

EO - End Office

CL\*

EF - Entrance Facility

RIC - Residual Interconnection Charge

RIC

Direct Trunked Transport

-Direct Trunked Facility

-Direct Trunked Termination

Tandem Switched Transport

- -Tandem Switched Facility
- -Tandem Switched Termination
- -Tandem Switching
- -Local Transport Facility
- -Local Transport Termination

\*Common Line Access Service is provided under Section 3. Preceding

### 6. Switched Access Service (Cont'd)

# 6.1 General (Cont'd)

### 6.1.3 Rate Categories (Cont'd)

# (A) Local Transport

The Local Transport rate category establishes the charges related to the transmission and tandem switching facilities between the customer designated premises and the end office switch(es), which may be a Remote Switching Module(s) or WATS Serving Office, where the customer's traffic is switched to originate or terminate the customer's communications. Mileage measurement rules are set forth in 6.4.6 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 designated premises) and in the terminating direction (from the customer designated premises to the end office switch), but not simultaneously. The voice frequency transmission path may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz. The customer must specify the choice of facilities (i.e., Voice Grade 2 or 4 wire or High Capacity DS1 or DS3) to be used in the provision of the Direct Trunked Transport or Entrance Facility. Direct Trunked Transport and Entrance Facility Service are only available in conjunction with facilities transporting originating Feature Group D usage.

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

Additionally, when service is to be routed through an Windstream access tandem switch, the customer must order the facility between the serving wire center and the tandem as Direct Trunked Transport.

When the customer has both Tandem Switched Transport and Direct Trunked Transport at the same end office, the customer will be provided Alternate Traffic Routing as set forth in 6.4.6 following.

Direct Trunked Transport is available at all tandems and at all end offices except those end offices identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. No. 4, as not having the capability to provide Direct Trunked Transport. Direct Trunked Transport is not available: (1) from end offices that provide equal access through a Centralized Equal Access arrangement, or (2) from end offices that lack recording or measurement capability.

# 6. Switched Access Service (Cont'd)

#### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (A) Local Transport

Normally, Direct Trunked Transport of originating 800 series calls from an end office is available only from Service Switching Point (SSP) equipped end offices. However, certain SSP equipped end offices cannot accommodate the direct trunking of the 888 service access code. These end offices are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4. Additionally, certain non-SSP equipped end offices can accommodate direct trunking of originating 800 series calls. These end offices are also identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4.

Unless otherwise ordered by the F.C.C., where the Telephone Company elects to provide equal access through a centralized equal access arrangement, the Telephone Company will designate the serving wire center. The designated SWC will normally be that wire center which provides dial tone to the telephone company centralized Equal Access tandem office identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4. When service is provided in cooperation with a non telephone company provider of centralized Equal Access, the SWC will be that wire center which would normally provide dial tone to the telephone company point of interconnection with the non telephone company provider of Centralized Equal Access specified in the tariff of the Centralized Equal Access provider. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

Local Transport is provided at the rates and charges set forth in 17.2.2 following. The application of these rates with respect to individual Feature Groups is as set forth in 6.4.1(C) following. When more than one Telephone Company is involved in providing the Switched Access Service, the Local Transport rates are applied as set forth in 2.4.7 preceding.

The Local Transport Rate Category includes five classifications of rate elements: (1) Entrance Facility, (2) Direct Trunked Transport, (3) Tandem Switched Transport, (4) Residual Interconnection Charge, and (5) Multiplexing.

### 6. Switched Access Service (Cont'd)

# 6.1 General (Cont'd)

# **6.1.3** Rate Categories (Cont'd)

# (A) Local Transport (Cont'd)

### (1) Entrance Facility

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

Three types of Entrance Facility are available: (1) Voice Grade 2 or 4 wire (an analog channel with an approximate bandwidth of 300 to 3000 Hz), (2) High Capacity DS1 (an isochronous serial digital channel with a rate of 1.544 Mbps) and (3) High Capacity DS3 (an isochronous serial digital channel with a rate of 44.736 Mbps). The minimum period for which a DS3 Entrance Facility is provided is twelve months.

One charge applies for each Entrance Facility that is terminated at a customer designated premises. This charge specified in 17.2.2 following will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

A customer's Local Transport may be connected to the Entrance Facility of another customer, providing the other customer submits a Letter of Authorization for this connection and assumes full responsibility for the cost of the Entrance Facility.

### (2) Direct Trunked Transport

The Direct Trunked Transport rate elements recover a portion of the cost associated with a communications path between a serving wire center and an end office or serving wire center and a tandem on circuits dedicated to the use of a single customer.

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

Direct Trunked Transport is not available: (1) from end offices that provide equal access through a Centralized Equal Access arrangement, or (2) from end offices that lack recording or measurement capability.

### 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

## (A) Local Transport (Cont'd)

### (2) <u>Direct Trunked Transport</u> (Cont'd)

Normally, Direct Trunked Transport of originating 800 series calls from an end office is available only from Service Switching Point (SSP) equipped end offices. However, certain SSP equipped end offices cannot accommodate the direct trunking of the 888 service access code. These end offices are identified in NATIONAL EXCHANGE F.C.C. NO. 4. Additionally, certain non-SSP equipped end offices can accommodate direct trunking of originating 800 series calls. These end offices are also identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4.

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

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

Direct Trunked Transport rates consist of a Direct Trunked Facility rate specified in 17.2.2 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 serving wire center). When the Direct Trunked Facility mileage is zero, neither the Direct Trunked Facility rate nor the Direct Trunked Termination rate will apply.

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

The Direct Trunked Termination rate specified in 17.2.2 following recovers a portion of the costs of the circuit equipment that is necessary for the termination of each end of the Direct Trunked Facility.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (A) Local Transport (Cont'd)

### (3) <u>Tandem Switched Transport</u>

The Tandem Switched Transport rate elements recover a portion of the costs associated with a communications path between the tandem and the end office on circuits that are switched at a tandem switch. Tandem Switched Transport consists of circuits used in common by multiple customers from the tandem to the end office.

Tandem Switched Transport rates consist of a Tandem Switching rate, a Tandem Switched Facility rate, and a Tandem Switched Termination rate. When the Telephone company has identified in NECA Tariff F.C.C. No. 4, Wire Center Information that it has not received a bona fide request for Direct Trunked Transport, Local Transport Facility and Local Transport Termination rates and charges will apply instead of Tandem Switched Facility, Tandem Switched Termination, and Tandem Switching rates and charges.

In those instances where an SSP equipped end office is capable of handling 800 traffic on a direct trunked basis but incapable of handling 888 traffic on a direct trunked basis, a full credit will be provided for tandem switched transport charges associated with FGC and FGD service for 888 traffic delivered at the tandem. This results in all 800 series traffic being rated as direct trunked transport regardless of whether the SSP equipped end office is capable of handling 888 traffic on a direct trunked basis. Those SSP equipped end offices that cannot accommodate direct trunking of originating 888 traffic are identified in NECA TARIFF F.C.C. NO. 4, WIRE CENTER INFORMATION.

- (a) The Tandem Switching rate recovers a portion of the costs of switching traffic through an access tandem. The Tandem Switching rate specified in 17.2.2 following is applied on a per access minute per tandem basis for all originating and all terminating minutes of use switched at the tandem. Tandem locations are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 WIRE CENTER INFORMATION.
- (b) The Tandem Switched Facility rate recovers a portion of the costs of transmission facilities, including intermediate transmission circuit equipment, between the end points of interoffice circuits. The Tandem Switched Facility rate specified in 17.2.2 following is applied on a per access minute per mile basis for all originating and terminating minutes of use routed over the facility.

- 6. Switched Access Service (Cont'd)
  - 6.1 General (Cont'd)
    - 6.1.3 Rate Categories (Cont'd)
      - (A) <u>Local Transport</u> (Cont'd)
        - (3) Tandem Switched Transport (Cont'd)
          - (c) The Tandem Switched Termination rate recovers a portion of the costs of circuit equipment necessary for the termination of each end of each measured segment of the Tandem Switched Facility. The Tandem Switched Termination rate specified in 17.2.2 following is applied on a per access minute basis (for all originating and terminating minutes of use routed over the facility) at each end of each measured segment of Tandem Switched Facility (e.g., at the end office, Feature Group A dial tone office, host office, tandem, and serving wire center). When the Tandem Switched Facility mileage is zero, neither the Tandem Switched Facility rate nor the Tandem Switched Termination rate will apply.
          - (d) The Local Transport Facility rate recovers a portion of the cost related to the transmission and tandem switching facilities between the customer designated premises and the end office switch(es) when the customer's traffic is switched to originate or terminate the customer's communications. For purposes of determining Local Transport Facility measurement, distance will be measured from the wire center that normally serves the customer designated premises to the end office switch(es), which may be Remote Switching Module(s). Exceptions to the Local Transport Facility measurement rules are as set forth in 6.4.6 following. The Local Transport Facility rate specified in 17.2.2 following is applied on a per access minute per mile basis for all originating and terminating minutes of use routed over the facility.
          - (e) The Local Transport Termination rate provides for the communications frequency transmission path at the Telephone Company switching office and includes a portion of Central Office Switching and Central Office Circuit equipment (e.g. signaling, transmission devices, padding, carrier channels, etc.). The Local Transport Termination rate specified in 17.2.2 following is applied on a per access minute basis (for all originating and terminating minutes of use routed over the facility) at the end of the Local Transport Facility that is most distant from the customer's designated premises (e.g. end office). The Local Transport Termination rate will also apply if the IC serving wire center and the end user serving wire center are collocated.

# 6. Switched Access Service (Cont'd)

### 6.1 <u>General</u> (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (A) <u>Local Transport</u> (Cont'd)

#### (4) Residual Interconnection Charge

The Residual Interconnection Charge recovers the costs associated with Local Transport that are not recovered by the Entrance Facility, Direct Trunked Transport, Tandem Switched Transport, Multiplexing, or dedicated signaling (i.e., SS7) rates. The Residual Interconnection Charge specified in 17.2.2 following applies to both Tandem Switched and Direct Trunked access minutes of use.

The Residual Interconnection Charge does not apply when the Telephone Company has identified in NECA Tariff F.C.C. No. 4, Wire Center Information that it has not received a bona fide request for Direct Trunked Transport and is therefore applying Local Transport Facility and Local Transport Termination rates and charges instead of Tandem Switched Facility, Tandem Switched Termination, and Tandem Switching rates and charges.

#### (5) Multiplexing

DS3 to DS1 Multiplexing charges specified in 17.2.2 following apply when a High Capacity DS3 Entrance Facility or High Capacity DS3 Direct Trunked Facility is connected with High Capacity DS1 Direct Trunked Transport. The DS3 to DS1 multiplexer will convert a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

DS1 to Voice Grade Multiplexing charges apply when a High Capacity DS1 Entrance Facility or High Capacity DS1 Direct Trunked Facility is connected with Voice Grade Direct Trunked Transport. However, a DS1 to Voice Grade Multiplexing charge does not apply when a High Capacity DS1 Entrance Facility or High Capacity DS1 Direct Trunked Transport is terminated at an electronic end office and only Switched Access Service is provided over the DS1 facility (i.e., Voice Grade Special Access channels are not derived). The DS1 to Voice Grade multiplexer will convert a 1.544 Mbps channel to 24 Voice Grade channels.

Multiplexing is only available at wire centers identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4, WIRE CENTER INFORMATION.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (A) Local Transport (Cont'd)

#### (6) Interface Groups

Ten Interface Groups are provided for terminating the Entrance Facility at the customer's designated premises. Technical specifications concerning the available interface groups are set forth in 15.1 following.

### (7) <u>Nonchargeable Optional Features</u>

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 the following optional features as set forth and described in 15.1.1(E) following.

- Supervisory Signaling
- Customer Specified Entry Switch Receive Level
- Customer Specification of Local Transport Termination
- 64 Clear Channel Capability

When a customer subscribes to Common Channel Signaling (SS7) Network Connection Service (CCSNC Service), the following optional features are made available and are described in 6.10.1 following.

- Signaling System 7 (SS7) Signaling
- Calling Party Number
- Carrier Selection Parameter
- Charge Number Parameter

# (8) Chargeable Optional Features

Common Channel Signaling, Signaling System 7 (CCS/SS7) Network Connection (CCSNC) Service provides a signaling path between a customer's designated Signaling Point of Interface (SPOI) and a Telephone Company's Signaling Transfer Point (STP). CCSNC is provided as set forth in 6.10.5 following.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (A) <u>Local Transport</u> (Cont'd)

#### (8) Chargeable Optional Features (Cont'd)

800 Data Base Access Service is provided to all customers in conjunction with FGC and FGD switched access service. A Basic or Vertical Feature Query charge, as set forth in 17.2.2 (B) following, is assessed for each completed query returned from the 800 data base whether or not the actual call is delivered to the customer. The query is considered completed when the appropriate call routing information is returned to the Service Switching Point (SSP) that launched the query. The Basic Query provides the identification of the customer to whom the call will be delivered and includes area of service routing which allows routing of 800 series calls by telephone companies to different interexchange carriers based on the Local Access Transport Area (LATA) in which the call originates. The Vertical Feature Query provides this same customer identification function in addition to vertical features which may include: (1) call validation (ensuring that calls originate from subscribed service areas); (2) POTS translation of 800 series numbers (which is generally necessary for the routing of 800 series calls); (3) alternate POTS translation (which allows subscribers to vary the routing of 800 series calls based on factors such as time of day, place of origination of the call, etc.); and (4) multiple carrier routing (which allows subscribers to route to different carriers based on factors similar to those in (3).

### (B) End Office

The End Office rate category establishes the charges related to the local end office switching and end user termination functions necessary to complete the transmission of Switched Access communications to and from the end users served by the local end office. The End Office rate category includes the Local Switching and Information Surcharge rate elements. Directory Assistance Service is set forth in Section 9. following.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (B) End Office (Cont'd)

### (1) Local Switching

The Local Switching rate element establishes the charges related to the use of end office switching equipment, the terminations in the end office of end user lines, and the terminations of calls at Telephone Company Intercept Operators or recordings. The premium charge is divided into two distinct categories, i.e., Local Switching 1 and Local Switching 2. The first category, Local Switching 1, is applicable to Feature Groups A and B. Local Switching 1 does not apply to:

- Feature Groups A and B when utilized to provide MTS/WATS service, and
- Feature Groups A and B used for terminating inward WATS and WATS-type service at an equal access WATS Serving Office.

The second category, Local Switching 2, is applicable to:

- Feature Groups C and D, and
- Feature Groups A and B when utilized to provide MTS/WATS service.
- Feature Group B when routed over Feature Group D facilities at an office or access tandem.
- Feature Groups A and B used for terminating inward WATS and WATS-type service at an equal access WATS Serving Office.

Local Switching does not apply to Feature Groups B and D Switched Access Services associated with Wireless Switching Center (WSCs) directly interconnected to a Telephone Company access tandem office.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

#### (B) End Office (Cont'd)

### (1) <u>Local Switching</u> (Cont'd)

Where end offices are appropriately equipped, international dialing may be provided as a capability associated with Local Switching 2 which provides local dial switching for Feature Groups C and D. International dialing provides the capability of switching international calls with service prefix and address codes having more digits than are capable of being switched through a standard FGC or FGD equipped end office.

Rates for Local Switching 1 and Local Switching 2 are set forth in 17.2.3 following. The application of these rates with respect to individual Feature Groups is as set forth in 6.4.1(C) following.

There are four types of functions included in the Local Switching rate element: Common Switching, Transport Termination, Line Termination and Intercept. These are described in (a) through (d) following.

### (a) <u>Common Switching</u>

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 the various Feature Group arrangements are described in 6.5 through 6.9 following.

Included as part of Common Switching are various nonchargeable optional features which the customer can order to meet the customer's specific communications requirements. These optional features are described in 6.10.1 following.

# 6. Switched Access Service (Cont'd)

### 6.1 <u>General</u> (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (B) End Office (Cont'd)

### (1) <u>Local Switching</u> (Cont'd)

#### (b) Transport Termination

Transport Termination functions provide for the line or trunk side arrangements which terminate the Local Transport facilities. Included as part of these functions are various nonchargeable optional termination arrangements. These optional terminating arrangements are described in 6.10.2 following.

The number of Transport Terminations provided will be determined by the Telephone Company as set forth in 6.2.5 following.

### (c) <u>Line Termination</u>

Line Termination provides for the terminations of end user lines in the local end office. There are two types of Line Terminations, i.e., Common Line Terminations and Special Access Service Terminations utilized in the provision of WATS or WATS-type services at Telephone Company designated WATS Serving Offices.

The above Special Access Service Terminations are differentiated by line side vs. trunk side terminations. In addition, there are various types of originating and terminating line side terminations depending on the type of signaling associated with the Special Access Service. Line side terminations are available with either dial pulse or dual tone multifrequency address signaling.

# (d) <u>Intercept</u>

The Intercept function provides for the termination of a call at a Telephone Company 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. <u>Switched Access Service</u> (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

### (B) End Office (Cont'd)

# (2) <u>Information Surcharge</u>

Information Surcharge rates are assessed to a customer based on the total number of access minutes. Information Surcharge rates are as set forth in 17.2.3(B) following. The application of these rates with respect to individual Feature Groups is as set forth in 6.4.1(C) following.

The Information Surcharge does not apply to Feature Groups B and D Switched Access Services associated with Wireless Switching Centers (WSCs) directly interconnected to a Telephone Company access tandem office.

The number of end office switching transmission paths will be determined as set forth in 6.2.5 following.

# (C) Chargeable Optional Features

Where facilities permit, the Telephone Company will, at the option of the customer, provide the following chargeable optional features.

### (1) <u>Interim NXX Translation</u>

The Interim NXX Translation rate element provides for customer identification of non-data base services when calls are directed by end users in the 1+SAC+NXX-XXXX (e.g., 1+900+NXX-XXX) format. The NXX codes are assigned to specific customers in conformance with the North American Numbering Plan (NANP). NXX code assignment(s) will be made by the Bellcore NANP Coordinator. The Telephone Company will use the NXX code to identify the customer to whose point of termination the traffic is to be delivered, (i.e., at appropriately equipped electronic end offices, access tandems or through contracted arrangements with other parties.) It is then the responsibility of the customer to do any further translation the customer deems necessary to route the call. Customer assigned NXX codes which have not been ordered will be blocked.

# 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

#### (C) <u>Chargeable Optional Features</u> (Cont'd)

# (1) <u>Interim NXX Translation</u> (Cont'd)

A nonrecurring charge, as set forth in 17.1.7 following, is associated with this optional feature. This nonrecurring charge is assessed by the Telephone Company on a per order, per LATA or Market Area basis and is applied in lieu of the Access Order Charge specified in 17.1.3 following. The nonrecurring charge is assessed only by the Telephone Company that provides the final translation function. A Telephone Company is said to have provided the final Interim NXX Translation when its translation identifies the customer's traffic and this traffic is then delivered to the customer's point of termination without any further translation. The description and application of this charge with respect to Feature Group C and Feature Group D is as set forth in 6.4.1(B)(2) and 6.4.1(C)(2) following.

# (2) <u>800 Data Base Access Service</u>

800 Data Base Access Service is provided to all customers in conjunction with FGC and FGD switched access service. When a 1+800 series +NXX-XXXX call is originated by an end user, the Telephone Company will utilize the Signaling System 7 (SS7) network to query an 800 data base to identify the customer to whom the call will be delivered and provide vertical features based on the dialed ten digits. The call will then be routed to the identified customer over FGC or FGD switched access. The 800 series includes the following service access codes: 800, 888, 877, 866, 855, 844, 833 and 822.

### 6. Switched Access Service (Cont'd)

### 6.1 General (Cont'd)

# 6.1.3 Rate Categories (Cont'd)

#### (C) <u>Chargeable Optional Features</u> (Cont'd)

#### (2) 800 Data Base Access Service(Cont'd)

A Basic or Vertical Feature Query charge, as set forth in 17.2.2 following, is assessed for each completed query returned from the data base identifying the customer to whom the call will be delivered whether or not the actual call is delivered to the customer. The query is considered completed when the appropriate call routing information is returned to the Service Switching Point (SSP) that launched the query. The Basic Query provides the identification of the customer to whom the call will be delivered and includes area of service routing which allows routing of 800 series calls by telephone companies to different interexchange carriers based on the Local Access Transport Area (LATA) in which the call originates. The Vertical Feature Query provides the same customer identification as the basic query and vertical features which may include: (1) call validation, (ensuring that calls originate from subscribed service areas); (2) POTS translation of 800 series numbers; (3) alternate POTS translation (which allows subscribers to vary the routing of 800 series calls based on factors such as time of day, place or origination of the call, etc.); and (4) multiple carrier routing (which allows subscribers to route to different carriers based on factors similar to those in (3)).

The description and application of this charge with respect to Feature Group C or Feature Group D is as set forth in 6.4.1(C)(2) and 6.4.1(C)(8) following.

### 6.1.4 Special Facilities Routing

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

#### 6.1.5 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)

#### 6.2 Undertaking of the Telephone Company

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

#### **6.2.1** Network Management

The Telephone Company will administer its network to insure the provision of acceptable service levels to all telecommunications users of the Telephone Company's network services. Generally, service levels are considered acceptable only when both end users and customers are able to establish connections with little or no delay encountered within the Telephone Company network. The Telephone Company maintains the right to apply protective controls, i.e., those actions, such as call gapping, which selectively cancel the completion of traffic, over any traffic called over its network, including that associated with a customer's Switched Access Service. Generally, such protective measures would only be taken as a result of occurrences such as failure or overload of Telephone Company or customer facilities, natural disasters, mass calling or national security demands. In the event that the protective controls applied by the Telephone Company result in the complete loss of service by the customer, the customer will be granted a Credit Allowance for Service Interruption as set forth in 2.4.4(B)(3) preceding.

## **6.2.2** Transmission Specifications

Each Switched Access Service transmission path is provided with standard transmission specifications. There are three different standard specifications (Types A, B and C). The standard for a particular transmission path is dependent on the Feature Group, the Interface Group and whether the service is directly routed or via an access tandem. The available transmission specifications are set forth in 15.1.2 following. Data Transmission Parameters are also provided with each Switched Access Service transmission path. The Telephone Company will, upon notification by the customer that the data parameters set forth in 15.1.3 following are not being met, conduct tests independently or in cooperation with the customer, and take any necessary action to insure that the data parameters are met.

The Telephone Company will maintain existing transmission specifications on functioning service configurations installed prior to May 25, 1984 except that service configurations having performance specifications exceeding the standards set forth in 15.1.2 following will be maintained at performance levels specified.

The transmission specifications concerning Switched Access Service are limits which, when exceeded, may require the immediate corrective action of the Telephone Company. The transmission specifications are set forth in 15.1.2 following. Acceptance limits are set forth in Technical Reference GR-334-CORE. This Technical Reference also provides the basis for determining Switched Access Service maintenance limits.

# 6. Switched Access Service (Cont'd)

### 6.2 <u>Undertaking of the Telephone Company</u> (Cont'd)

### 6.2.3 Provision of Service Performance Data

Subject to availability, end-to-end service performance data available to the Telephone Company through its own service evaluation routines, may also be made available to the customer based on previously arranged intervals and format. These data provide information on overall end-to-end call completion and non- completion performance, e.g., customer equipment blockage, failure results and transmission performance. These data do not include service performance data which are provided under other tariff sections, e.g., testing service results. If data are to be provided in other than paper format, the charges for such exchange will be determined on an individual case basis.

# **6.2.4** <u>Testing</u>

# (A) 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-notched noise, C-message noise, 3-tone slope, d.c. continuity and operational signaling. When the Local Transport is provided with Interface Groups 2 through 10, and the Transport Termination is two-wire (i.e., there is a four-wire to two-wire conversion in Local Transport), balance parameters (equal level echo path loss) may also be tested.

#### (B) Routine Testing

At no additional charge, the Telephone Company will, at the customer's request, test after installation on an automatic or manual basis, 1004 Hz loss, C-message noise and Balance (Improved Return loss).

In the case of automatic testing, the customer shall provide remote office test lines and 105 test lines with associated responders or their functional equivalent.

The frequency of these tests will be that which is mutually agreed upon by the customer and the Telephone Company, but shall consist of not less than quarterly 1004Hz Loss and C-message noise tests and an annual Balance test. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

Additional tests may be ordered as set forth in 13.3.1 following. Charges for these additional tests are set forth in 17.5.8 following.

### 6. Switched Access Service (Cont'd)

### 6.2 <u>Undertaking of the Telephone Company</u> (Cont'd)

# **6.2.5** <u>Determination of Number of Transmission Paths</u>

For Feature Groups A and B, which are ordered on a per line or per trunk basis respectively, and Feature Groups C and D when ordered on a per trunk basis, the customer specifies the type of transport facilities and the number of channels in the order for service.

For Tandem Switched Transport, the Telephone Company will determine the number of Switched Access Service transmission paths to be provided for the Switched Access Feature Group C or D busy hour minutes of capacity ordered. The number of transmission paths will be developed using the total busy hour minutes of capacity by type (as described in 6.1.1(B) preceding) for the end offices for each Feature Group ordered from a customer's designated premises. The total busy hour minutes of capacity by type (e.g., originating, terminating, IDDD, Operator) for the end office will be converted to transmission paths using standard Telephone Company traffic engineering methods. The number of transmission paths provided shall be the number required based on (1) the use of access tandem switches and end office switches, (2) the use of end office switches only, or (3) the use of tandem switches only.

# 6.2.6 Trunk Group Measurement Reports

Subject to availability, the Telephone Company will make available trunk group data in the form of usage in CCS, peg count and overflow, to the customer based on previously agreed to intervals.

### 6. Switched Access Service (Cont'd)

# 6.3 Obligations of the Customer

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

# 6.3.1 Report Requirements

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

#### (A) Jurisdictional Reports

When a customer orders Switched Access Service for both interstate and intrastate use, the customer is responsible for providing reports as set forth in 2.3.11 preceding. Charges will be apportioned in accordance with those reports. The method to be used for determining the intrastate charges is set forth in 2.3.12 preceding.

### (B) Code Screening Reports

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

### **6.3.2** 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, were 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.

### 6.3.3 Supervisory Signaling

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

# 6.3.4 Short Duration Mass Calling Requirements

When a customer offers service for which a substantial call volume is expected during a short period of time (e.g., 900 service media stimulated events), the customer must notify the Telephone Company at least 48 hours in advance of each peak period. Notification should include the nature, time, duration, and frequency of the event, as estimated call volume, and the telephone number(s) to be used.

On the basis of the information provided, the Telephone Company may invoke network management controls, (e.g., call gapping and code blocking) to reduce the probability of excessive network congestion. The Telephone Company will work cooperatively with the customer to determine the appropriate level of such control.

### 6. Switched Access Service (Cont'd)

#### **6.4** Rate Regulations

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

### 6.4.1 Description and Application of Rates and Charges

There are two types of rates and charges that apply to Switched Access Service; recurring (usage and flat rates) and nonrecurring charges. These rates and charges are applied differently to the various rate elements as set forth in (C) following.

# (A) Recurring Rates

- (1) Usage rates for Switched Access Service are rates that apply on a per minute basis or a per call basis. Access minute charges and per call charges are accumulated over a monthly period.
- (2) Flat Rates for Switched Access Service are rates that apply on a per month per rate element basis.

# (B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for a specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Switched Access Service are: installation of service, Interim NXX Translation optional feature and service rearrangements and Flexible Automatic Number Identification optional feature. These charges, with the exception of the Interim NXX Translation optional feature, are in addition to the Access Order Charge as specified in 17.1.3 following.

#### (1) <u>Installation of Service</u>

When the Telephone Company has identified in NECA Tariff F.C.C. No. 4, Wire Center Information that it has not received a bona fide request for Direct Trunked Transport, a nonrecurring Installation per Line or Trunk Charge as set forth in 17.1 following applies to each Switched Access Service installed. For FGA, which is ordered on a per line basis, and for FGB, FBC and FGD, which is ordered on a per trunk basis, the charge is applied on a per line or trunk basis respectively. For FGC and FGD, which are ordered on a busy hour minutes of capacity basis, the charge is also applied on a per trunk basis but the charge applies only when the capacity ordered requires the installation or activation of an additional trunk(s) which is uniquely identified for the sole use of the ordering customer.

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (B) <u>Nonrecurring Charges</u> (Cont'd)

## (1) Installation of Service (Cont'd)

For Entrance Facilities, a Local Transport nonrecurring installation charge, as set forth in 17.1 following, will be applied at the serving wire center for each Entrance Facility installed. This charge is not applied when the Telephone Company has identified in NECA Tariff F.C.C. No. 4 Wire Center Information that it has not received a bona fide request for Direct Trunked Transport.

For Direct Trunked Transport ordered to the end office, a Local Transport nonrecurring trunk activation charge, as set forth in 17.1 following, will be applied at the end office on a per order basis for each group of 24 Direct Trunked Transport trunks or fraction thereof that is activated at the end office.

For Direct Trunked Transport ordered to the access tandem, a Local Transport nonrecurring trunk activation charge, as set forth in 17.1 following, will be applied at the access tandem on a per order basis for each group of 24 Direct Trunked Transport trunks or fraction thereof that is activated at the access tandem.

For Tandem Switched Transport, a Local Transport nonrecurring trunk activation charge, as set forth in 17.1 following, will be applied at the access tandem on a per order basis for each group of 24 dedicated trunks or fraction thereof that is activated at the access tandem.

A maximum of 24 trunks can be activated on a DS1 facility and a maximum of 672 trunks can be activated on a DS3 facility.

For example, if a customer orders a DS1 Entrance Facility and requests activation of 18 of the available circuits, the customer will be charged one Local Transport High Capacity DS1 Installation nonrecurring charge at the serving wire center and one Direct Trunked Transport Activation nonrecurring charge at the end office. If at a later date the customer requests the activation of three more circuits, the customer will then be charged an additional Direct Trunked Transport Activation nonrecurring charge. These charges are in addition to the Access Order Charge as specified in 17.1.3 following.

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (B) Nonrecurring Charges (Cont'd)

## (2) Interim NXX Translation Optional Feature

This nonrecurring charge applies to the initial order for the installation of the Interim NXX Translation optional feature with Feature Group C or Feature Group D Switched Access Service and for each subsequent order received to add or change NXX Translation codes. This charge, if applicable, applies whether this optional feature is installed coincident with or at any time subsequent to the installation of Switched Access Services. This charge is applied by the Telephone Company per order, per LATA or Market Area. When it is necessary for multiple telephone companies to provide the translation function, the nonrecurring charge is assessed only by the Telephone Company that provides the final translation function which identifies the customer's traffic and this traffic is then delivered to the customer's point of termination without any further translation.

#### (3) Service Rearrangements

All changes to existing services other than changes involving administrative activities and the off-hook supervisory signaling of FGA Access Services, will be treated as a discontinuance of the existing service and an installation of a new service. The nonrecurring charge described in (1) preceding will apply for this work activity. Moves that change the physical location of the point of termination are described and charged for as set forth in 6.4.4 following.

If, due to technical limitations of the Telephone Company, a customer could not combine its Interim NXX traffic with its other trunk side Switched Access Services, no charge shall apply to combine these trunk groups when it becomes technically possible.

# 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (B) <u>Nonrecurring Charges</u> (Cont'd)

### (3) <u>Service Rearrangements</u> (Cont'd)

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

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

Other changes made without charges to the customers are as follows:

Changes and additions to existing Switched Access Services which are necessary due to Telephone Company initiated network reconfigurations, and required to provide the same grade of service to the customer that existed prior to the reconfiguration. Charges will apply to those changes and additions which are in excess of those required to provide the same grade of service and/or capacity. Grade of service will be as determined by industry standard engineering tables.

Changes to the point in time when the off-hook supervisory signal is provided in the originating call sequence i.e., when the off-hook supervisory signal is changed from being provided by the customer's equipment before the called party answers to being forwarded by the customer's equipment when the called party answers or vice versa, are subject to the Access Order Charge as set forth in 17.1.3 following.

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (B) Nonrecurring Charges (Cont'd)

#### (3) Service Rearrangements (Cont'd)

For additions, changes or modifications to an optional feature which has a separate nonrecurring charge, that nonrecurring charge will apply.

For additions, changes, or modifications to optional features that do not have their own separate nonrecurring charges, an Access Order Charge as set forth in 17.1.3 following will apply (with the exception of the addition of 64 Clear Channel Capability to an existing service). When an optional feature is not required on each transmission path, but rather for an entire transmission path group, an end office or an access tandem switch, only one such charge will apply (i.e., it will not apply per transmission path).

When the 64 Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated non-recurring charges will apply.

For conversion of FGC and FGD trunks from multifrequency address signaling to SS7 signaling or from SS7 signaling to multifrequency address signaling, nonrecurring charges will apply as set forth in 17.1.

# (C) Application of Rates

Rates are applied either as premium rates or non-premium rates.

The application of these rates is dependent upon the Feature Group, type of Entrance Facility, type of transport (e.g., Direct Trunked Transport, Tandem Switched Transport, type of Multiplexing) and the availability of equal access capabilities in the end office to which the service is provided.

# 6. Switched Access Service (Cont'd)

# 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (C) <u>Application of Rates</u> (Cont'd)

The following rules provide the basis for applying the rates and charges:

#### (1) Premium Rates

Premium rates apply to all FGC access minutes when the service is provided to customers which furnish intrastate MTS/WATS, to all access minutes that originate or terminate at end offices equipped with equal access (i.e., FGD) capabilities, and to Direct Transport Services. Premium rates also apply to FGB and FGD access minutes that originate or terminate at a Wireless Switching Center (WSC) that is directly connected to a Telephone Company access tandem office. In addition, premium rates apply to FGA and FGB access minutes when utilized in the provision of MTS/WATS service or when routed over FGD facilities at an end office or access tandem.

In addition, premium rates always apply to the following Local Transport rate elements:

- Entrance Facility
- Direct Trunked Facility
- Direct Trunked Termination
- Multiplexing
- Tandem Switched Facility
- Tandem Switched Termination
- Tandem Switching

# 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (C) Application of Rates (Cont'd)

#### (2) Non-premium Rates (Cont'd)

Non-premium rates do not apply to the following Local Transport rate elements:

- Entrance Facility
- Direct Trunked Facility
- Direct Trunked Termination
- Multiplexing
- Tandem Switched Facility
- Tandem Switched Termination
- Tandem Switching

Non-premium rates (i.e., discounted access minute rates) apply to all FGA and FGB access minute (measured or assumed) originating or terminating in an end office which is not equipped with equal access capabilities. Non-premium rates do not apply to FGA and FGB access minutes when utilized in the provision of MTS/WATS service.

In addition, non-premium rates apply to FGC access minutes originating in an end office which is not equipped with equal access capabilities when the FGC service is used in conjunction with the Interim NXX Translation optional feature or 800 Data Base services by customers who <u>do not</u> furnish intrastate MTS/WATS.

Non-Premium rates do not apply to FGB ADA access minutes.

# (3) <u>Transition Billing Arrangement</u>

When FGA, or FGB Switched Access Service, except as set forth in (1) preceding, provided to an entry switch (i.e., dial tone office for FGA and access tandem for FGB) has usage originating from and/or terminating at both end offices that have been converted to equal access and end offices that have not been converted, the premium and non-premium transitional rates will apply in the following manner:

- 6. Switched Access Service (Cont'd)
  - 6.4 Rate Regulations (Cont'd)
    - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
      - (C) Application of Rates (Cont'd)
        - (3) Transition Billing Arrangement (Cont'd)
          - (a) All access minutes that originate from or terminate at the equal access end office(s) will be billed at premium rates. Access minutes that originate from or terminate at end offices not equipped with equal access capabilities, hereinafter referred to as non-premium access minutes, will continue to be billed at non-premium rates. Non-premium rates will apply as follows depending on the type of service.
            - (i) For FGA and FGB services, the number of non- premium access minutes to be billed at non-premium rates is derived by subtracting the number of premium rated access minutes from the total number of access minutes.
            - (ii) Premium access minutes will be determined as set forth in (b) following.
          - (b) The number of access minutes to be rated as premium access minutes is determined as follows:
            - (i) Where end office specific usage data is available, premium rates apply to the measured access minutes originating from or terminating at the equal access end office(s).
            - Where end office specific usage data is not available for (ii) originating and/or terminating FGA or FGB, the total originating and/or terminating usage will be measured or assumed usage at the entry switch as set forth respectively in 6.5.4 and 6.6.4 following. Originating and/or terminating usage will then be apportioned between premium and non-premium access minutes. apportionment will be based on the ratio of the number of subscriber lines in the access area (i.e., local calling areas for FGA originating minutes, LATA for FGA terminating minutes and end offices subtending the access tandem for FGB minutes) of the first point of switching that are served by equal access end offices to the total number of subscriber lines in that access area. The ratio thus developed is applied to the total measured or assumed originating FGA usage, terminating FGA usage, originating FGB usage or terminating FGB usage, as applicable, to determine the usage to be billed at premium rates, unless adjusted as set forth in (iii) following.

- 6. Switched Access Service (Cont'd)
  - 6.4 Rate Regulations (Cont'd)
    - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
      - (C) Application of Rates (Cont'd)
        - (3) <u>Transition Billing Arrangement</u> (Cont'd)
          - (b) (Cont'd)
            - (ii) (Cont'd)

The ratios used to calculate the premium usage will be determined on a quarterly basis. The ratios to be used for the succeeding quarter will be provided to the customer with the last bill rendered in the quarter or mailed separately within five working days after the first day of the new quarter (i.e., January, April, July and October).

For purposes of administering this provision: (1) subscriber lines are defined as exchange service lines, Centrex lines and Centrex-type lines provided by the Telephone Company under its local and/or general exchange service tariff; (2) the access area is defined as the local calling area of the dial tone office for originating FGA, the entire LATA for terminating FGA, and all end offices subtending the access tandem for originating and terminating FGB; and (3) the local calling area of the dial tone office is as defined in the Telephone Company's local and/or general exchange service tariff.

- 6. <u>Switched Access Service</u> (Cont'd)
  - 6.4 Rate Regulations (Cont'd)
    - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
      - (C) Application of Rates (Cont'd)
        - (3) Transition Billing Arrangement (Cont'd)
          - (b) (Cont'd)
            - (iii) Where FGD Switched Access Service is provided to a customer in an end office(s) where that customer's FGA or FGB premium access minutes have been determined in accordance with (ii) preceding, such premium access minutes will be adjusted in the following manner. For each FGD access minute originating from or terminating at that end office the originating or terminating FGA or FGB premium access minutes determined as set forth in (ii) preceding will be reduced on a one for one basis, but in no event shall the reduction exceed the total number of FGA or FGB premium access minutes originating from or terminating at that end office. For each FGA or FGB premium minute of use reduction in either the originating or terminating direction, a corresponding originating or terminating nonpremium minute of use will be apportioned to those end offices in the access area that are non-equal. Such apportionment will be based upon a ratio of the number of subscriber lines in each non- equal end office to the total subscriber lines that are served by all non-equal end offices in the access area. The customer will be billed for the revised number of premium or nonpremium access minutes.
        - (4) <u>Unmeasured FGA and FGB Access Services</u>

Where originating and/or terminating measurement capability does not exist for Feature Group A or Feature Group B Switched Access Services provided to the first point of switching, the number of access minutes that will be assumed are as set forth following in 6.5.4 and 6.6.4 respectively.

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

### (C) <u>Application of Rates</u> (Cont'd)

# (5) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection</u> Service

The CCS/SS7 Network Connection is comprised of a Signaling Mileage Facility charge, a Signaling Mileage Termination charge, a Signaling Entrance Facility charge, and a Signaling Transfer Point (STP) Port charge.

The Signaling Mileage Facility charge is assessed on a per facility per mile basis. The Signaling Mileage Termination charge is assessed on a per termination basis (i.e., at each end of the Signaling Mileage Facility). When the Signaling Mileage Facility mileage measurement is zero, Signaling Mileage Termination charges do not apply.

The Signaling Entrance Facility charge is assessed on a per facility basis for the connection between the customer's designated premises (Signaling Point of Interface) and the serving wire center of that premises.

The STP Port charge is assessed on a per port basis for each termination of a Signaling Mileage Facility at an STP.

### (6) 800 Data Base Access Service

A Basic Query or Vertical Feature Query charge applies for each completed query that is returned from the 800 data base identifying the customer to whom the call will be delivered whether or not the actual call is delivered to the customer. The query is considered completed when the appropriate call routing information is returned to the Service Switching Point (SSP) that launched the query. Query charges, as set forth in 17.2.2, will only be applied by those companies whose wire centers are identified as assessing query charges in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

- 6. Switched Access Service (Cont'd)
  - 6.4 Rate Regulations (Cont'd)
    - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
      - (C) <u>Application of Rates</u> (Cont'd)
        - (6) 800 Data Base Access Service (Cont'd)

When Feature Group C or Feature Group D switched access service is used for the provision of 800 Data Base Access Service and the total minutes of use and/or count of queries can be determined for each customer at a tandem or SSP but can not be determined by individual end office, an allocation method will be utilized to determine minutes of use and/or queries by end office and customer. For each end office a ratio will be developed and applied against the total minutes of use and/or count of queries for a given customer as determined by the tandem or SSP. These ratios will be developed by dividing the unidentified originating 800 series minutes of use at an end office by the total unidentified originating minutes of use in all end offices subtending the tandem or SSP. For example, assume:

- Three end offices (EO-1, EO-2, and EO-3) subtend a tandem

EO-1 measures 2,000 minutes of 800 use EO-2 measures 3,000 minutes of 800 use EO-3 measures 5,000 minutes of 800 use 10,000 TOTAL

- The tandem delivers 800 usage to two customers:

IC-A has 4,000 minutes of use IC-B has 6,000 minutes of use

- The allocation of use to be billed by EO-1 are

800 to IC-A (20% X 4,000) 1,200 to IC-B (20% X 6,000) 2,000 TOTAL

### 6. Switched Access Service (Cont'd)

# 6.4 Rate Regulations (Cont'd)

### 6.4.2 <u>Minimum Monthly Charge</u>

Switched Access Service is subject to a minimum monthly charge. The minimum charge applies for the total capacity provided. The minimum monthly charge is calculated as follows.

For usage rated Local Transport, Local Switching and Information Surcharge rate elements, the minimum monthly charge is the sum of the recurring charges set forth in 17.2.2 and 17.2.3 following for either the actual measured usage or the assumed usage prorated to the number of days or major fraction of days based on a 30 day month.

For flat rated Local Transport rate elements, the minimum monthly charge is the sum of the recurring charges set forth in 17.2.2 following prorated to the number of days or major fraction of days on a 30 day month.

#### 6.4.3 Change of Switched Access Service Arrangements

Changes from one type of Feature Group to another will be treated as a discontinuance of one type of service and a start of another. Nonrecurring charges will apply, with one exception. When a customer upgrades a Feature Group A or B service to a Feature Group D service and when Feature Group C is upgraded to Feature Group D coincident with the availability of Feature Group D in an end office, the nonrecurring charges associated with the equal access conversion will not apply. Nonrecurring charges for other associated service requests, (e.g., a simultaneous change from multifrequency address signaling to SS7 signaling) will apply. Minimum period obligations will not change, i.e., the time elapsed in the existing minimum period obligation will be credited to the minimum period obligations for Feature Group D service, subject to the following limitations.

In order to avoid the imposition of nonrecurring charges a customer which is a participant in the presubscription allocation process (i.e., is on the presubscription ballot) must:

- submit its order to disconnect Feature Group A and/or B within 30 days after the date the results of the final allocation of customers in an end office are actually received by the customer, and
- make the effective date for disconnection of the Feature Group A and/or B Access Services no later than 60 days after the final allocation results are received by the customer.

A customer which is not a participant in the allocation process (i.e., is not on the presubscription ballot) is subject to the same rules preceding. The time frames for the non- participating customer(s) are the same as those which apply to the last customer to receive the results of the final allocation of customers in an end office who is a participant in the allocation process. For all other changes from one type of Feature Group to another, new minimum period obligations will be established.

### 6. <u>Switched Access Service</u> (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# **6.4.4 Moves**

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

- The point of termination at the customer's premises
- The customer's designated 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 installation nonrecurring charge for the capacity affected. This charge is in addition to the Access Order Charge as specified in 17.1.3 following. There will be no change in the minimum period requirements.

# (B) Moves to a Different Building

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

### 6.4.5 <u>Local Information Delivery Services</u>

Calls over Switched Access Service in the terminating direction to certain community information services will be rated under the applicable rates for Switched Access Service as set forth in 17.2 following. In addition, the charges per call as specified under the Telephone Company's local and/or general exchange service tariffs, e.g., 976 (DIAL-IT) Network Services, will also apply.

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.6 <u>Mileage Measurement</u>

The mileage to be used to determine the monthly rate for Local Transport is calculated on the airline distance between the end office switch, which may be a Remote Switching Module, where the call carried by Local Transport originates or terminates at the customer's serving wire center. When Tandem Switched Transport or Direct Trunked Transport is ordered between the serving wire center and the end office, mileage is normally measured in one segment from the serving wire center to the end office. When Direct Trunked Transport is ordered between a serving wire center and a tandem and Tandem Switched Transport is ordered between the tandem and the end office, mileage is calculated separately for each segment. Exceptions to those methods are as set forth in (B) through (I) following. For SS7 signaling, the mileage to be used to determine the monthly rate for the Signaling Mileage Facility is calculated on the airline distance between the serving wire center associated with the customer's designated premises (Signaling Point of Interface) and the Telephone Company wire center providing the STP Port.

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).

Mileage rates are as set forth in 17.2.2 following. To determine the rate to be billed, first compute the airline mileage using the V&H coordinates method. If 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. Then multiply the mileage by the appropriate rate.

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 switching dial tone is provided) and the customer's serving wire center for the Switched Access Service provided. This exception does not apply to access minutes originating and/or terminating in an Extended Area Service area as set forth in 6.4.1(C)(7) preceding. Extended Area Service area (PEC/SEC) mileage measurement exceptions are found in (D) following.

Local Transport Facility mileage is calculated in the same manner for FGA when the Telephone Company has identified in NECA Tariff F.C.C. No. 4, Wire Center Information that it has not received a bona fide request for Direct Trunked Transport and therefore applies Local Transport Facility rates.

# 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.6 <u>Mileage Measurement</u> (Cont'd)

#### (B) Feature Group A Terminating Usage

The Local Transport mileage for terminating Feature Group A Switched Access Service when the Telephone Company provides Direct Trunked Transport 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 Groups B, C and D - Alternate Traffic Routing

When the Alternate Traffic Routing optional feature is provided with Feature Groups B, C or D, the Local Transport access minutes will be apportioned between the two trunk groups 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 6.10.1(L) following (Alternate Traffic Routing), and the total busy hour minutes 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 calculation.

# (D) Feature Group C - Multiple CDPs

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

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

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

# 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

# 6.4.6 <u>Mileage Measurement</u> (Cont'd)

## (F) Feature Groups B and D - WSCs Directly Interconnected to Access Tandems

The Local Transport mileage for Feature Groups B and D switched access service provided to Wireless Switching Centers (WSCs) directly interconnected to a Telephone Company access tandem office will be determined on an airline basis, using the V&H coordinate method. The mileage will be measured between the customer's serving wire center and the Telephone Company access tandem office to which the WSC is interconnected.

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

When the Telephone Company provides Direct Trunked Transport the Local Transport mileage for Feature Groups 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 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. A Tandem Switching charge will be applicable at the tandem.

When service to the remote is ordered as only Tandem Switching 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.

# (H) <u>Use of Telephone Company Hub</u>

When multiplexing is performed at Telephone Company Hubs, mileage is computed and rates applied separately for each segment of the Local Transport Direct Trunked Facility (i.e., customer serving wire center to Hub, Hub to Hub, and/or Hub to end office).

### 6. Switched Access Service (Cont'd)

### 6.4 Rate Regulations (Cont'd)

## 6.4.7 <u>Mixed Use</u>

Mixed use occurs when Switched Access Service and Special Access Service are provided over the same High Capacity service through a common interface. The regulations governing the provision of Mixed Use Facilities are set forth in 5.2.4 preceding and 7.2.7 following.

The Telephone Company will designate the first point(s) of switching and routing to be used where equal access traffic is provided through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

### 6.4.8 Message Unit Credit for Feature Group A

Calls from end users to the seven digit local telephone numbers associated with Feature Group A Switched Access Service are subject to Telephone Company local and/or general exchange service tariff charges (including message unit and toll charges as applicable). The monthly bills rendered to customers for their Feature Group A Switched Access Service will include a credit to reflect any message unit charges collected from their end users under the Telephone Company's local and/or general exchange service tariffs. When the customer is provided FGA service where measurement capability does not exist, the credit will apply to access minutes not to exceed the assumed originating access minutes. No credit will apply for any terminating FGA access minutes. The message unit credit for originating access minutes will be based on the generally applicable message unit charges of the Telephone Company.

### 6.4.9 Application of Rates for Feature Group A Extension Service

Feature Group A Switched Access Service is available with extensions, i.e., additional terminations of the service at different customer designated premises in the same LATA as the FGA dial tone office or a LATA other than the LATA where the FGA dial tone office is located. Feature Group A extensions within the same LATA and same state as the dial tone office are provided and charged for under the Telephone Company's local and/or general exchange service tariffs. Feature Group A extensions located in a LATA other than the LATA where the dial tone office is located or in a different state in the same LATA as the dial tone office are provided and charged as Special Access Service. The rate elements which apply are: A Voice Grade Channel Termination, Channel Mileage, if applicable, and Signaling Capability (optional features and functions), if applicable. All appropriate monthly rates and nonrecurring charges set forth in 17.3 following will apply.

## 6. Switched Access Service (Cont'd)

### 6.5 <u>Description and Provision of Feature Group A</u> (Cont'd)

## 6.5.1 <u>Description</u>

- (A) FGA Access provides line side access to Telephone Company end office switches with an associated seven digit local telephone number for the customer's use in originating communications from and terminating communications to an Interexchange Carrier's Intrastate Service or a customer provided intrastate communications capability. Customers must be interexchange carriers or resellers having a certificate of convenience and necessity from the Pennsylvania Public Utility Commission. The customer must specify the Interexchange Carrier to which the FGA service is connected or, in the alternative, specify the means by which the FGA access communications is transported to another LATA. Special Access Services utilized for connection with FGA at Telephone Company designated WATS Serving Offices as set forth in Section 7. following may be ordered separately by a customer other than the customer which orders the FGA Switched Access Service for the provision of WATS-type services. Special Access Services are ordered as set forth in 5.2 preceding.
- (B) FGA Switching is provided at all end office switches. At the option of the customer, FGA is provided on a single or multiple line group basis and is arranged for originating calling only, terminating calling only, or two-way calling.
- (C) FGA provides a line side termination at the first point of switching (dial tone office). The line side termination will be provided with either ground start supervisory signaling or loop start supervisory signaling. The type of signaling is at the option of the customer.
- (D) The Telephone Company shall select the first point of switching, within the selected LATA, at which the line side termination is to be provided unless the customer requests a different first point of switching and Telephone Company facilities and measurement capabilities, where necessary, are available to accommodate such a request.
- (E) A seven digit local telephone number assigned by the Telephone Company is provided for access to FGA switching in the originating direction. The seven digit local telephone number will be associated with the selected end office switch and is of the form NXX-XXXX.

If the customer requests a specific seven digit telephone number that is not currently assigned, and the Telephone Company can, with reasonable effort, comply with that request, the requested number will be assigned to the customer.

## 6. Switched Access Service (Cont'd)

### 6.5 Description and Provision of Feature Group A (Cont'd)

## 6.5.1 <u>Description</u> (Cont'd)

- (F) FGA switching, when used in the terminating direction, is arranged with dial tone start-dial signaling. When used in the terminating direction FGA switching may, at the option of the customer, be arranged for dial pulse or dual tone multifrequency address signaling, subject to availability of equipment at the first point of switching. When FGA switching is provided in a hunt group or uniform call distribution arrangement, all FGA switching will be arranged for the same type of address signaling.
- (G) No address signaling is provided by the Telephone Company when FGA Switching is used in the originating direction. Address signaling in such cases, if required by the customer, must be provided by the customer's end user using inband tone signaling techniques. Such inband tone address signals will not be regenerated by the Telephone Company and will be subject to the ordinary transmission capabilities of the Local Transport provided.
- (H) FGA switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, local operator service (0- and 0+), Directory Assistance (411 where available and 555-1212), emergency reporting service (911 where available), exchange telephone repair (611 where available), time or weather announcement services of the Telephone Company, community information services of an information service provider, and other customers' services (by dialing the appropriate digits).

Charges for FGA terminating calls requiring operator assistance or calls to 611 or 911 will only apply where sufficient call details are available. Additional non-access charges will also be billed on a separate account for (1) an operator surcharge, as set forth in the local exchange tariffs, for local operator assistance (0- and 0+) calls, (2) calls to certain community information services, for which rates are applicable under Telephone Company exchange service tariffs, e.g., 976 (DIAL-IT) Network Services, and, (3) calls from a FGA line to another customer's service in accordance with that customer's applicable service rates when the Telephone Company performs the billing function for that customer.

For calls to Directory Assistance (411 and 555-1212, whichever is available), Local Transport rates for FGA Switched Access Service will not apply. Additionally, calls to Directory Assistance are subject to the Directory Assistance Service Call rate set forth in 17.2.4 following.

# 6. Switched Access Service (Cont'd)

## 6.5 <u>Description and Provision of Feature Group A (Cont'd)</u>

## 6.5.1 <u>Description</u> (Cont'd)

- (I) When a FGA switching arrangement for an individual customer (a single line or entire hunt group) is discontinued at an end office, an intercept announcement is provided. This arrangement provides, for a limited period of time, an announcement that the service associated with the number dialed has been disconnected.
- (J) FGA will be provisioned over an Entrance Facility from the customer's premises to the customer's serving wire center.

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

FGA service, when used in the terminating direction, will be provisioned as Direct Trunked Transport from the customer's serving wire center to the first point of switching and provisioned as Tandem Switched Transport from the first point of switching to the terminating end office. The Tandem Switching charge will not apply.

## 6. Switched Access Service (Cont'd)

## 6.5 <u>Description and Provision of Feature Group A (Cont'd)</u>

## 6.5.2 Optional Features

Following are the various nonchargeable optional features that are available in lieu of, or in addition to, the standard features provided with Feature Group A. They are provided as Common Switching, Transport Termination or Local Transport options.

### (A) Common Switching Options

Descriptions of the common switching optional features are set forth in 6.10 following.

- (1) <u>Call Denial on Line or Hunt Group</u>
- (2) <u>Service Code Denial on Line or Hunt Group</u>
- (3) <u>Hunt Group Arrangement</u>
- (4) <u>Uniform Call Distribution Arrangement</u>
- (5) <u>Nonhunting Number for Use with Hunt Group or Uniform Call Distribution</u> <u>Arrangement</u>
- (6) <u>Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Services</u>
- (7) <u>Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Services</u>
- (8) <u>Uniform Call Distribution Arrangement for Use with Special Access Service</u>
  <u>Utilized in the Provision of WATS-Type Services</u>
- (9) Nonhunting Number Associated with a Hunt Group Arrangement or Uniform
  Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Services

# 6. Switched Access Service (Cont'd)

### 6.5 Description and Provision of Feature Group A (Cont'd)

## 6.5.2 Optional Features (Cont'd)

### (B) <u>Transport Termination</u>

- (1) Two-way operation with dial pulse address signaling and loop start supervisory signaling
- (2) Two-way operation with dial pulse address signaling and ground start supervisory signaling
- (3) Two-way operation with dial tone multifrequency address signaling and loop start supervisory signaling
- (4) Two-way operation with dial tone multifrequency address signaling and ground start supervisory signaling
- (5) Terminating operation with dial pulse address signaling and loop start supervisory signaling
- (6) Terminating operation with dial pulse address signaling and ground start supervisory signaling
- (7) Terminating operation with dual tone multifrequency address signaling and loop start supervisory signaling
- (8) Terminating operation with dual tone multifrequency address signaling and ground start supervisory signaling
- (9) Originating operation with loop start supervisory signaling
- (10) Originating operation with ground start supervisory signaling

# (C) <u>Local Transport Options</u>

- (1) Supervisory Signaling (as set forth in 15.1.1(E) following)
- (2) Customer Specified Entry Switch Receive Level (as set forth in 15.1.1(E) following)

#### 6.5.3 Optional Features Provided In Local Tariffs

Certain other features which may be available in connection with Feature Group A (e.g., Speed Calling, Remote Call Forwarding, Bill Number Screening, IntraLATA extensions) are provided under the Telephone Company's local and/or general exchange service tariffs.

### 6. Switched Access Service (Cont'd)

### 6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)

## 6.5.4 Measuring Access Minutes

Customer Feature Group A traffic to end offices will be measured (i.e., recorded) or assumed by the Telephone Company at end office switches. Originating and terminating calls will be measured (i.e., recorded) or assumed by the Telephone Company to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because the Telephone Company lost or damaged tapes or incurred recording system outages, the Telephone Company will estimate the volume of lost customer access minutes of use based on previously known values.

For terminating calls over FGA, and for originating calls over FGA (when the off-hook supervisory signal is provided by the customer's equipment before the called party answers), the measured minutes are the chargeable access minutes. For originating calls over FGA (when the off-hook supervisory signal is forwarded by the customer's equipment when the called party answers), chargeable originating access minutes are derived from recorded minutes using the same formula as set forth in 6.7.4 following for Feature Group C.

For originating calls over FGA, usage measurement begins when the originating FGA first point of switching receives an off-hook supervisory signal forwarded from the customer's point of termination. This off-hook signal may be provided by the customer's equipment before the called party answers, or forwarded by the customer's equipment when the called party answers.

The measurement of originating call usage over FGA ends when the originating FGA first point of switching receives an on-hook supervisory signal from either the originating end user's end office, indicating the originating end user has disconnected, or the customer's point of termination, which ever is recognized first by the first point of switching.

For terminating calls over FGA, usage measurement begins when the terminating FGA first point of switching receives an off-hook supervisory signal from the terminating end user's end office, indicating the terminating end user has answered. The measurement of terminating call usage over FGA ends when the terminating FGA first point of switching receives an on-hook supervisory signal from either the terminating end user's end office, indicating the terminating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching

FGA access minutes or fractions thereof, the exact value of the fraction being a function of the switch technology where the measurement is made, are accumulated over the billing period for each line or hunt group, and are then rounded up to the nearest access minute for each line or hunt group.

# 6. Switched Access Service (Cont'd)

#### 6.5 Description and Provision of Feature Group A (FGA) (Cont'd)

## 6.5.4 Measuring Access Minutes (Cont'd)

Assumed minutes are used for FGA services which originate or terminate in end offices not equipped with measurement capabilities and in such cases are the chargeable access minutes.

Where originating and terminating measurement capability does not exist for Feature Group A provided to the first point of switching, the number of access minutes will be assumed as set forth in 17.2.5 following.

Where measurement capability exists for either originating or terminating usage, but not both, on a line arranged for two way calling, the number of access minutes per line per month will be assumed usage, as set forth in 17.2.5 following, or the measured usage, whichever is greater. If the usage in the measured direction exceeds the assumed access minutes per line per month, no usage will be assigned in the unmeasured direction. If the measured usage is less than the assumed access minutes per line per month, the usage in the unmeasured direction will be the assumed usage, as set forth in 17.2.5 following, for that unmeasured direction except that the total of measured and assumed minutes in such instances will not exceed the total assumed usage designated for two way calling set forth in 17.2.5 following. If the total exceeds the assumed minutes set forth in 17.2.5 following, the assigned minutes shall be reduced so that the total of measured and unmeasured minutes equals the assumed minutes for two way calling set forth in 17.2.5 following.

Additionally, when the line is arranged for one way calling and there is no measurement capability for that direction, assumed originating access minutes, as set forth in 17.2.5(B) following, will be assigned for originating calling only lines and assumed terminating access minutes, as set forth in 17.2.5(C) following, will be assigned for terminating calling only lines.

# 6. Switched Access Service (Cont'd)

# 6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)

# 6.5.4 Measuring Access Minutes (Cont'd)

The following matrix illustrates the application of assumed access minutes for FGA as set forth in 17.2.5(A), (B) and (C) following.

Service Ordered As	Can Measure Originating	Can't Measure Originating	Can Measure Terminating	Can't Measure Terminating
Originating Only	Actual	1,510	N/A	N/A
Terminating Only	N/A	N/A	Actual	2,685
Both Originating and Terminating (originating measurement greater than 4195)	Actual	N/A	N/A	0
Both Originating and Terminating (originating measurement equal or less than 4195)	Actual	N/A	N/A	0 to 2685*
Both Originating and Terminating (terminating measurement greater than 4195)	N/A	0	Actual	N/A
Both Originating and Terminating (terminating measurement equal or less than 4195)	N/A	0 to 1510*	Actual	N/A

<sup>\*</sup> Sum of actual and assumed cannot exceed 4195. Reduce assumed minutes of use if necessary.

## 6. Switched Access Service (Cont'd)

## 6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)

# 6.5.4 <u>Measuring Access Minutes</u> (Cont'd)

Notwithstanding the preceding, when Feature Group A is used for the provision of WATS-type service where measurement capability exists at the WATS Serving Office but not at the Feature Group A first point of switching, the measured WATS-type originating and/or terminating minutes of use shall be separately summed and compared to their respective total assumed originating and/or terminating minutes of use. The number of access minutes per line per month will be the assumed or the measured usage, whichever is greater.

## 6.5.5 <u>Testing Capabilities</u>

FGA is provided, in the terminating direction where equipment is available, with seven digit access to balance (100 type) test line and milliwatt (102 type) test line. In addition to the tests described in 6.2.4 preceding which are included with the installation of service (Acceptance Testing) and as ongoing routine testing, Additional Cooperative Acceptance Testing and Additional Manual Testing are available as set forth in 13.3.1 following

## 6. Switched Access Service (Cont'd)

### 6.6 Description and Provision of Feature Group B (FGB)

## 6.6.1 <u>Description</u>

- (A) FGB Access, which is available to all customers, provides trunk side access to Telephone Company end office switches with an associated uniform 950-XXXX access code. FGB trunk side access is provided for the customer's use in originating communications from and terminating communications to an Interexchange Carrier's Intrastate Service or a customer provided intrastate communications capability. The customer must specify the Interexchange Carrier to which the FGB service is connected or, in the alternative, specify the means by which the FGB access communications is transported to another LATA. Special Access Services utilized for connection with FGB at Telephone Company designated WATS Serving Offices as set forth in Section 7. following may be ordered separately by a customer other than the customer which orders the FGB Switched Access Service for the provision of WATS-type services. Special Access Services are ordered as set forth in 5.2 preceding.
- (B) FGB, when directly routed to an end office (i.e., provided without the use of an access tandem switch), is provided at appropriately equipped Telephone Company electronic end office switches. When provided via Telephone Company designated electronic access tandem switches, FGB switching is provided at Telephone Company electronic and electromechanical end office switches.
- (C) FGB is provided as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is provided with wink start start-pulsing signals and answer and disconnect supervisory signaling.
- (D) FGB switching is provided with multifrequency address signaling in both the originating and terminating directions. Except for FGB switching provided with the automatic number identification (ANI) or rotary dial station signaling arrangements as set forth respectively in 6.10.1(F) and 6.10.2(A) following, any other address signaling in the originating direction, if required by the customer, must be provided by the customer's end user using inband tone signaling techniques. Such inband tone address signals will not be regenerated by the Telephone Company and will be subject to the ordinary transmission capabilities of the Local Transport provided.

# 6. Switched Access Service (Cont'd)

## 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.1 <u>Description</u> (Cont'd)

- (E) The access code for FGB switching is a uniform access code. The form of the uniform access code is 950-XXXX. A uniform access code will be assigned to the customer for the customer's domestic communications and another will be assigned to the customer for its international communications, if required. These access codes will be the assigned access numbers of all FGB switched access service provided to the customer by the Telephone Company.
- (F) The Telephone Company will establish a trunk group or groups for the customer at end office switches or access tandem switches where FGB switching is ordered. When required by technical limitations, a separate trunk group will be established for each type of FGB switching arrangement provided. Different types of FGB or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company.

### 6. Switched Access Service (Cont'd)

### 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.1 <u>Description</u> (Cont'd)

(G) FGB switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, community information services of an information service provider and other customers' services (by dialing the appropriate digits). When directly routed to an end office, only those valid NXX codes served by that end office may be accessed. When routed through an access tandem, only those valid NXX codes served by end offices subtending the access tandem may be accessed.

The customer will also be billed additional non-access charges for calls to certain community information services for which rates are applicable under Telephone Company exchange service tariffs, e.g., 976 (DIAL-IT) Network Service. Additionally, non-access charges will also be billed for calls from a FGB trunk to another customer's service in accordance with that customer's applicable service rates when the Telephone Company performs the billing function for that customer.

Calls in the terminating direction will not be completed to 950-XXXX access codes, local operator assistance (0- and 0+), Directory Assistance (411 and 555- 1212), service codes 611 and 911 or 101XXXX access codes. Calls will be completed to Directory Assistance (NPA-555-1212 or 555-1212) when FGB switching is combined with Directory Assistance (DA) switching. The combination of FGB Switched Access Service with DA service is provided as set forth in Section 9. following. FGB may not be switched, in the terminating direction, to Switched Access Service Feature Groups B, C and D.

- (H) When all FGB switching arrangements are discontinued at an end office and/or in a LATA, an intercept announcement is provided. This arrangement provides, for a limited period of time, an announcement that the service associated with the number dialed has been disconnected.
- (I) A customer who has FGB access may elect to have their FGB traffic routed over FGD trunks at the end office or access tandem. If the customer elects this option the FGB traffic will be rated at FGD rates.
- (J) For FGB switched access service to a Wireless Switching Center (WSC) directly interconnected to a Telephone Company access tandem office, the customer will be billed only the Local Transport premium rate element for the FGB usage. The mileage used to determine the monthly rate for the local transport rate element is as set forth in 6.4.6(G) preceding.

# 6. Switched Access Service (Cont'd)

## 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.2 Optional Features

Following are descriptions of the various nonchargeable optional features that are available in lieu of, or in addition to, the standard features provided with Feature Group B. They are set forth in (A), (B) and (C) following and are provided as Common Switching, Transport Termination and Local Transport options. Additionally, other optional features provided in local tariffs are set forth in (D) following.

## (A) Common Switching Optional Features

Descriptions of the common switching optional features are set forth in 6.10 following.

- (1) <u>Automatic Number Identification (ANI)</u>
- (2) Up to 7 Digit Outpulsing of Access Digits to Customer
- (3) <u>Band Advance Arrangement for Use with Special Access Service utilized in the provision of WATS or WATS-type Services</u>
- (4) <u>Hunt Group Arrangement for Use with Special Access Service utilized in the provision of WATS or WATS- type Services</u>
- (5) <u>Uniform Call Distribution Arrangement for Use with Special Access Service utilized</u> in the provision of WATS or WATS-type Services
- (6) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service utilized in the provision of WATS or WATS-type Services

# 6. Switched Access Service (Cont'd)

## 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.2 Optional Features (Cont'd)

- (B) <u>Transport Termination Options</u>
  - (1) Rotary Dial Station Signaling
- (C) Local Transport Options
  - (1) Customer Specification of Local Transport Termination
  - (2) Optional Supervisory Signaling
  - (3) Customer Specified Entry Switch Receive Level

Inasmuch as these options concern transmission levels and signaling they are set forth in 15.1.1 following.

## (D) Optional Features Provided In Local Tariffs

Another feature, Bill Number Screening, which may be available in connection with FGB, is provided under the Telephone Company's local and/or general exchange service tariffs.

# 6.6.3 Design and Traffic Routing

For Feature Group B, the trunk directionality and traffic routing of the Switched Access Service between the customer designated premises and the entry switch are determined by the customer's order for service; except the Telephone Company will designate the first point(s) of switching and routing to be used where equal access is provided through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4. Additionally, the customer may order the optional feature Customer Specification of Local Transport Termination as set forth in 15.1.1 following.

### 6. Switched Access Service (Cont'd)

### 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.4 Measuring Access Minutes

Customer traffic to end offices will be measured (i.e., recorded) or assumed by the Telephone Company at end office switches or access tandem switches. Originating and terminating calls will be measured (i.e., recorded) or assumed by the Telephone Company to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because the Telephone Company lost or damaged tapes or incurred recording system outages, the Telephone Company will estimate the volume of lost customer access minutes of use based on previously known values.

For both originating and terminating calls over FGB the measured minutes are the chargeable access minutes.

For originating calls over FGB, usage measurement begins when the originating FGB first point of switching receives answer supervision forwarded from the customer's point of termination, indicating the customer's equipment has answered.

The measurement of originating call usage over FGB ends when the originating FGB first point of switching receives disconnect supervision from either the originating end user's end office, indicating the originating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

For terminating calls over FGB, usage measurement begins when the terminating FGB first point of switching receives answer supervision from the terminating end user's end office, indicating the terminating end user has answered.

The measurement of terminating call usage over FGB ends when the terminating FGB first point of switching receives disconnect supervision from either the terminating end user's end office, indicating the terminating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

FGB access minutes of fractions thereof, the exact value of the fraction being a function of the switch technology where the measurement is made, are accumulated over the billing period for each end office, and are then rounded up to the nearest access minute for each end office.

Assumed minutes are used for FGB services which originate or terminate in end offices not equipped with measurement capabilities and in such cases are the chargeable access minutes.

### 6. Switched Access Service (Cont'd)

### 6.6 <u>Description and Provision of Feature Group B (FGB)</u> (Cont'd)

## 6.6.4 Measuring Access Minutes (Cont'd)

Where originating and terminating measurement capability does not exist for Feature Group B provided to the first point of switching, the number of access minutes will be assumed, as set forth in 17.2.5(D) following, when the trunk is arranged for two way calling.

Where measurement capability exists for either originating or terminating usage, but not both, on a trunk arranged for two way calling, the number of access minutes per trunk per month will be an assumed usage, as set forth in 17.2.5(D) following, or the measured usage, whichever is greater. If the usage in the measured direction exceeds the assumed access minutes per trunk per month, no usage will be assigned in the unmeasured direction. If the measured usage is less than the assumed access minutes per trunk per month, the usage in the unmeasured direction will be the assumed usage, as set forth in 17.2.5 following, for that unmeasured direction except that the total of measured and assumed minutes in such instances will not exceed the total assumed usage designated for two way calling set forth in 17.2.5(D) following. If the total exceeds the assumed minutes set forth in 17.2.5 following, the assigned minutes shall be reduced so that the total of measured and unmeasured minutes equals the assumed minutes for two way calling set forth in 17.2.5(D) following.

Additionally, when the trunk is arranged for one way calling and there is no measurement capability for that direction, assumed originating access minutes, as set forth in 17.2.5(E) following, will be assigned for originating calling only lines and assumed terminating access minutes, as set forth in 17.2.5(F) following, will be assigned for terminating calling only lines.

# 6. Switched Access Service (Cont'd)

# 6.6 Description and Provision of Feature Group B (FGB) (Cont'd)

# 6.6.4 Measuring Access Minutes (Cont'd)

The following matrix illustrates the application of assumed access minutes for FGB as set forth in 17.2.5(D), (E) and (F) following.

Service Ordered As	Can Measure Originating	Can't Measure Originating	Can Measure Terminating	Can't Measure <u>Terminating</u>
Originating Only	Actual	3,132	N/A	N/A
Terminating Only	N/A	N/A	Actual	5,568
Both Originating and Terminating (originating measurement greater than 8700)	Actual	N/A	N/A	0
Both Originating and Terminating (originating measurement equal or less than 8700)	Actual	N/A	N/A	0 to 5568*
Both Originating and Terminating (terminating measurement greater than 8700)	N/A	0	Actual	N/A
Both Originating and Terminating (terminating measurement equal or less than 8700)	N/A	0 to 3132*	Actual	N/A

<sup>\*</sup> Sum of actual and assumed cannot exceed 8700. Reduce assumed minutes of use if necessary.

### 6. Switched Access Service (Cont'd)

#### 6.6 Description and Provision of Feature Group B (FGB) (Cont'd)

## 6.6.4 Measuring Access Minutes (Cont'd)

Notwithstanding the preceding, when Feature Group B is used for the provision of WATS or WATS-type service where measurement capacity exists at the WATS Serving Office but not at the Feature Group B first point of switching, the measured WATS or WATS-type originating and/or terminating minutes of use shall be separately summed and compared to their respective total assumed originating and/or terminating minutes of use. The number of minutes per trunk per month will be the assumed or the measured usage, whichever is greater.

When Feature Group B is ordered at an access tandem and end office specific usage measurement is not available, the actual or assumed originating and/or terminating minutes of use as determined by the exchange carrier providing the access tandem will be apportioned among all subtending end offices. For each end office, such apportionment shall be based on the ratio of the total number of subscriber lines in each end office subtending the access tandem to the total number of subscriber lines associated with all end offices subtending the access tandem. For purposes of administering this regulation, subscriber lines are defined as exchange service lines, Centrex lines and Centrex-type lines provided by the telephone companies under local and/or general exchange service tariffs. The resulting ratio for each end office is then applied to the total access area originating and/or terminating minutes of use to determine originating and/or terminating minutes of use to be assigned for billing purposes to each subtending end office in the access area.

The ratio used to calculated the access minutes will be determined by the Telephone Company and provided to the customer upon his request within 15 days of the receipt of such a request.

### 6.6.5 <u>Testing Capabilities</u>

FGB is provided, in the terminating direction where equipment is available, with seven digit access to balance (100 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, data transmission (107 type) test line, loop around test line, short circuit test line and open circuit test line. In addition to the tests described in 6.2.4 preceding which are included with the installation of service (Acceptance Testing) and as ongoing routine testing, additional Cooperative Acceptance Testing, Additional Automatic Testing, and Additional Manual Testing are available as set forth in 13.3.1 following.

### 6. Switched Access Service (Cont'd)

#### 6.7 Description and Provision of Feature Group C (FGC)

## 6.7.1 <u>Description</u>

- (A) FGC Access provides trunk side access to Telephone Company end office switches for the customer's use in originating and terminating communications. Originating and terminating FGC Access is available to providers of MTS and WATS. Originating FGC Access is available to all customers when used to provide the Interim NXX Translation optional feature or 800 Data Base service. Terminating FGC Access is available to all customers other than providers of MTS and WATS when such access is used in conjunction with the provision of the Interim NXX Translation Optional Feature or 800 Data Base service, but only for purposes of testing. Existing FGC Access will be converted to Feature Group D Access when Feature Group D Access becomes available in an end office. Special Access Services utilized for connection with FGC at Telephone Company designated WATS Serving Offices as set forth in Section 7. following may be ordered separately by a customer other than the customer which orders the FGC Switched Access Service (i.e., a provider of MTS and WATS) for the provision of WATS Services. Special Access Services are ordered as set forth in 5.2 preceding.
- (B) Feature Group C switching is provided at all end office switches unless Feature Group D end office switching is provided in the same office. When FGD switching is available, FGC switching will not be provided. FGC is provided at Telephone Company end office switches on a direct trunk basis or via Telephone Company designated access tandem switches. Feature Group C switching is furnished to providers of MTS and WATS. Additionally, originating Feature Group C switching is available to all customers when used to provide the Interim NXX Translation optional feature or 800 Data Base service. Terminating Feature Group C switching is available to all customers who are not MTS and WATS providers only when such terminating access is for purposes of testing Feature Group C facilities provided in conjunction with the Interim NXX Translation optional feature or 800 Data Base Service.
- (C) FGC is provided as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is provided with answer and disconnect supervisory signaling. Wink start start-pulsing signals are provided in all offices where available. In those offices where wink start start-pulsing signals are not available, delay dial start-pulsing signals will be provided, unless immediate dial pulse signaling is provided, in which case no start-pulsing signals are provided.

### 6. Switched Access Service (Cont'd)

### 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.1 <u>Description</u> (Cont'd)

- (D) FGC is provided with multifrequency address signaling except in certain electromechanical end office switches where multifrequency signaling is not available. In such switches, the address signaling will be dial pulse or immediate dial pulse signaling, whichever is available. Up to 12 digits of the called party number dialed by the customer's end user using dual tone multifrequency or dial pulse address signals will be provided by Telephone Company equipment to the customer's premises where the Switched Access Service terminates. Such called party number signals will be subject to the ordinary transmission capabilities of the Local Transport provided.
- (E) No access code is required for FGC switching. The telephone number dialed by the customer's end user shall be a seven or ten digit number for calls in the North American Numbering Plan (NANP). For international calls outside the NANP, a seven to twelve digit number may be dialed. The form of the numbers dialed by the customer's end user is NXX-XXXX, 0 or 1 + NXX-XXXX, NPA + NXX-XXXX, 0 or 1 + NPA + NXX-XXXX, and, when the end office is equipped for International Direct Distance Dialing (IDDD), 01 + CC + NN or 011 + CC + NN.
- (F) FGC switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company. community information services of an information provider, and other customers' services (by dialing the appropriate codes) when the services can be reached using valid NXX codes. When directly routed to an end office, only those valid NXX codes served by that office may be accessed. When routed through an access tandem, only those valid NXX codes served by offices subtending the access tandem may be accessed. Where measurement capabilities exist, the customer will also be billed additional non-access charges for calls to certain community information services, for which rates are applicable under Telephone Company exchange service tariffs, e.g., 976 (DIAL-IT) Network Services. Additionally, non-access charges will also be billed for calls from a FGC trunk to another customer's service in accordance with that customer's applicable service rates when the Telephone Company performs the billing function for that customer. Calls in the terminating direction will not be completed to 950-XXXX access codes, local operator assistance (0- and 0+), Directory Assistance (411 and 555- 1212), service codes 611 and 911 and 101XXXX access codes. Calls will be completed to Directory Assistance (NPA-555-1212 or 555-1212) when FGC switching is combined with Directory Assistance switching. The combination of FGC Switched Access Service with DA Service is provided as set forth in Section 9. following. FGC may not be switched, in the terminating direction, to Switched Access Service Feature Groups B, C or D.

## 6. Switched Access Service (Cont'd)

## 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.1 <u>Description</u> (Cont'd)

- (G) The Telephone Company will establish a trunk group or groups for the customer at end office switches or access tandem switches where FGC switching is provided. When required by technical limitations, a separate trunk group will be established for each type of FGC switching arrangement provided. Different types of FGC or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company.
- (H) Unless prohibited by technical limitations the providers of MTS and WATS may, at their option, combine Interim NXX Translation and/or 800 Data Base traffic in the same trunk group arrangement with their non-Interim NXX Translation traffic. When required by technical considerations, or when provided to a customer other than the provider of MTS and WATS, or at the request of the customer (i.e., provider of MTS and WATS), a separate trunk group will be established for Interim NXX Translation traffic and/or 800 Data Base.
- (I) FGC switching is provided with multifrequency address signaling or out of band SS7 signaling where technically feasible. With multifrequency address signaling and SS7 signaling, up to 12 digits of the called party number dialed by the customer's end user dual tone multifrequency or dial pulse address signals will be provided by Telephone Company equipment to the customer's premises where the Switched Access Service terminates. Such address signals will be subject to the ordinary transmission capabilities of the Local Transport provided.

## 6. Switched Access Service (Cont'd)

# 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.2 Optional Features

Following are descriptions of the various nonchargeable and chargeable optional features that are available in lieu of, or in addition to, the standard features provided with Feature Group C. Nonchargeable optional features are provided as Common Switching, Transport Termination and Local Transport options as set forth in (A) through (C) following. Chargeable optional features are set forth in (D) following.

## (A) Common Switching Options

Descriptions of the common switching optional features are set forth in 6.10 following.

- (1) <u>Automatic Number Identification (ANI)</u>
- (2) Signaling Options
  - (a) <u>Delay Dial Start-Pulsing Signaling</u>
  - (b) Immediate Dial Pulse Address Signaling
  - (c) <u>Dial Pulse Address Signaling</u>
- (3) <u>Service Class Routing</u>
- (4) Alternate Traffic Routing
- (5) <u>Trunk Access Limitation</u>
- (6) <u>Band Advance Arrangement Associated with Special Access Service</u>
  Utilized in the Provision of WATS Service.
- (7) End Office End User Line Service Screening for Use with Special Access Service Utilized in the Provision of WATS Service
- (8) <u>Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS Service</u>
- (9) <u>Uniform Call Distribution Arrangement for Use with Special Access Service</u>
  <u>Utilized in the Provision of WATS Service</u>

## 6. Switched Access Service (Cont'd)

# 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.2 Optional Feature (Cont'd)

- (A) Common Switching Options (Cont'd)
  - (10) Nonhunting Number Associated with a Hunt Group Arrangement or Uniform
    Call Distribution Arrangement for Use with Special Access Service Utilized in
    the Provision of WATS Services
  - (11) Digital Switched 56 Service
- (B) <u>Transport Termination Options</u>
  - (1) Operator Trunk Coin, Non-Coin or Combined Coin and Non-Coin. The Operator Trunk option is set forth in 6.10.2(B) following.

### (C) <u>Local Transport Options</u>

(1) Supervisory Signaling

The Supervisory Signaling optional feature, due to its technical nature, is set forth in 15.1.1 following.

(2) <u>Signaling System 7 (SS7)</u>

The SS7 optional feature allows the customer to send and receive signals for out of band call set up and is available with Feature Group C. This option requires the establishment of a signaling connection between the customer's designated premises/Signaling Point of Interface (SPOI) and a Telephone Company Signaling Transfer Point (STP).

SS7 is provided in both the originating and terminating direction on FGC and each signaling connection is provisioned for two way SS7 signaling information.

- (3) Multifrequency Address Signaling
- (4) Calling Party Number (CPN)
- (5) Charge Number Parameter (CNP)
- (6) <u>64 Clear Channel Capability</u>

The 64 Clear Channel Capability optional feature, due to its technical nature, is set forth in 15.1.1 following.

## 6. Switched Access Service (Cont'd)

# 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.2 Optional Feature (Cont'd)

### (D) <u>Chargeable Optional Features</u>

### (1) <u>Interim NXX Translation</u>

The Interim NXX Translation Optional Feature is set forth in 6.10.3(A) following.

(2) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection</u> <u>Service (CCSNC)</u>

The CCSNC Optional Feature is provided as set forth in 6.10.5 following.

### 6.7.3 Design and Traffic Routing

For Feature Group C, the Telephone Company shall design and determine the routing of Switched Access Service. Additionally, for Tandem Switching Transport, the Telephone Company will design and determine the routing from the first point of switching to the end office. The Telephone Company shall also decide if capacity is to be provided by originating only, terminating only, or two-way trunk groups. Finally, the Telephone Company will decide whether trunk side access will be provided through the use of two-wire or four-wire trunk terminating equipment.

Selection of facilities and equipment and traffic routing of the service are based on standard engineering methods, available facilities and equipment, and actual traffic patterns.

### **6.7.4** Measuring Access Minutes

Customer traffic to end offices will be measured (i.e., recorded) by the Telephone Company at end office switches or access tandem switches. Originating and terminating calls will be measured or imputed by the Telephone Company to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because the Telephone Company lost or damaged tapes or incurred recording system outages, the Telephone Company will estimate the volume of lost customer access minutes of use based on previously known values.

For terminating calls over FGC when measurement capability exists, the measured minutes are the chargeable access minutes. For originating calls over FGC, chargeable originating access are derived from recorded minutes in the following manner:

Step 1: Obtain recorded originating minutes and messages from the appropriate recording data.

- 6. Switched Access Service (Cont'd)
  - 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)
    - 6.7.4 Measuring Access Minutes (Cont'd)
      - Step 2: Obtain the total attempts by dividing the originating measured messages by the completion ratio. Completion ratios (CR) are obtained separately for the major call categories such as DDD, operator, 800 series, 900, directory assistance and international from a sample study which analyzes the ultimate completion status of the total attempts which receive acknowledgement from the customer. That is, Measured Messages divided by Completion Ratio equals Total Attempts.
      - Step 3: Obtain the total non-conversation time additive (NCTA) by multiplying the total attempts (obtained in Step 2) by the NCTA per attempt ratio. The NCTA per attempt ratio is obtained from the sample study identified in Step 2 by measuring the non-conversation time associated with both completed and incompleted attempts. The total NCTA is the time on a completed attempt from customer acknowledgement of receipt of call to called party answer (set up and ringing) plus the time on an incompleted attempt from customer acknowledgment of call until the access tandem or end office receives a disconnect signal (ring no answer, busy or network blockage). That is, Total Attempts times Non-Conversation Time per Attempt Ratio equals Total NCTA.
      - Step 4: Obtain total chargeable originating access minutes by adding the total NCTA (obtained in Step 3) to the recorded originating measured minutes (obtained in Step 1). That is, Measured Minutes plus NCTA equals Chargeable Originating Access Minutes.

Following is an example which illustrates how the chargeable originating access minutes are derived from the measured originating minutes using this formula.

```
Where: Measured Minutes (M. Min.) = 7,000
Measured Messages (M. Mes.) = 1,000
Completion Ratio (CR) = .75
NCTA per Attempt = .4
```

- (1) Total Attempts =  $\frac{1,000(M. Mes.)}{.75 (CR)}$  = 1,333.3
- (2) Total NCTA = .4 (NCTA per Attempt) x 1,333.33 = 533.33
- (3) Total Chargeable Originating Access Minutes = 7,000(M. Min) + 533.33(NCTA) = 7,533.33

FGC access minutes or fractions thereof, the exact value of the fraction being a function of the switch technology where the measurement is made, are accumulated over the billing period for each end office, and are then rounded up to the nearest access minute for each end office.

### 6. Switched Access Service (Cont'd)

### 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.4 Measuring Access Minutes (Cont'd)

#### Originating Usage

For originating calls over FGC, usage measurement begins when the originating FGC first point of switching receives answer supervision from the customer's point of termination, indicating the called party has answered.

For originating calls over FGC provided with Signaling System 7 (SS7) Signaling when the FGC end office is not routed through an access tandem for connection to the customer, usage measurement begins when the SS7 Initial Address Message is sent from the Service Switching Point (SSP) to the Signal Transfer Point (STP).

For originating calls over FGC provided with Signaling System 7 (SS7) Signaling when the FGC end office is routed through a tandem for connection to the customer, usage measurement begins when the FGC end office receives the SS7 Exit Message from the tandem.

The measurement of originating call usage over FGC provided with Multi-Frequency Signaling ends when the originating FGC first point of switching receives disconnect supervision from either the originating end user's end office, indicating the originating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

The measurement of originating call usage over FGC provided with SS7 Signaling ends when the originating FGC end office receives an SS7 Release Message indicating either the originating or terminating end user has disconnected.

## **Terminating Usage**

For terminating calls over FGC the chargeable access minutes are either measured or derived. For terminating calls over FGC where measurement capability does not exist, terminating FGC usage is derived from originating usage, excluding usage from calls to closed end services or Directory Assistance Services.

### 6. Switched Access Service (Cont'd)

### 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

## 6.7.4 Measuring Access Minutes (Cont'd)

### **Terminating Usage** (Cont'd)

For terminating calls over FGC where measurement capability exists, the measurement of chargeable access minutes begins when the terminating FGC first point of switching receives answer supervision from the terminating end user's end office, indicating the terminating end user has answered. This measurement ends when the terminating FGC first point of switching receives an on-hook supervisory signal from the terminating end user's end office, indicating the terminating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

For terminating calls over FGC with SS7 signaling, usage measurement begins when the terminating recording switch receives answer supervision from the terminating end user. The Telephone Company switch receives answer supervision and sends the indication to the customer in the form of an answer message. The measurement of terminating FGC call usage ends when the entry switch receives or sends a Release Message, whichever occurs first.

### 6.7.5 Design Blocking Probability

The Telephone Company will design the facilities used in the provision of Switched Access Service FGC to meet the blocking probability criteria as set forth in (A) and (D) following.

- (A) For Feature Group C, the design blocking objective will be no greater than one percent (.01) between the point of termination at the customer's designated premises and the first point of switching when traffic is directly routed without an alternate route. Standard traffic engineering methods will be used by the Telephone Company to determine the number of transmission paths required to achieve this level of blocking.
- (B) The Telephone Company will perform routine measurement functions to assure that an adequate number of transmission paths are in service. The Telephone Company will recommend that additional capacity (i.e., busy hour minutes of capacity or trunks) be ordered by the customer when additional paths are required to reduce the measured blocking to the designed blocking level. For the capacity ordered, the design blocking objective is assumed to have been met if the routine measurements show that the measured blocking does not exceed the threshold listed in the following tables.

## 6. Switched Access Service (Cont'd)

## 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

# 6.7.5 <u>Design Blocking Probability</u> (Cont'd)

- (B) (Cont'd)
  - (1) For transmission paths carrying only first routed traffic direct between an end office and customer's designated premises without an alternate route, and for paths carrying only overflow traffic, the measured blocking thresholds are as follows:

Measured Blocking Thresholds

	in the Time Consistent Busy Hour				
Number of	for the Number of Measurements				
Transmission Paths	Taken Between 8:00 a.m. and 11:00 p.m.				
Per Trunk Group	Per Trunk Group				
	15-20	11-14	7-10	3-6	
	<u>Measurements</u>	<u>Measurements</u>	<u>Measurements</u>	<u>Measurements</u>	
2	70/	90/	00/	1.40/	
2	7%	8%	9%	14%	
3	5%	6%	7%	9%	
4	5%	6%	7%	8%	
5-6	4%	5%	6%	7%	
7 or more	3%	3.5%	4%	6%	

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

Number of Transmission Paths Per Trunk Group	Measured Blocking Thresholds in the Time Consistent Busy Hour for the Number of Measurements Taken Between 8:00 a.m. and 11:00 p.m. Per Trunk Group			
<u></u>	15-20	11-14	7-10	3-6
	Measurements	<u>Measurements</u>	<u>Measurements</u>	<u>Measurements</u>
2	4.5%	5.5%	6.0%	9.5%
3	3.5%	4.0%	4.5%	6.0%
4	3.5%	4.0%	4.5%	5.5%
5-6	2.5%	3.5%	4.0%	4.5%
7 or more	2.0%	2.5%	3.0%	4.0%

# 6. Switched Access Service (Cont'd)

## 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)

# 6.7.6 <u>Testing Capabilities</u>

FGC is provided, in the terminating direction where equipment is available, with seven digit access to balance (100 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, data transmission (107 type) test line, loop around test line, short circuit test line and open circuit test line. In addition to the tests described in 6.2.4 preceding which are included with the installation of service (Acceptance Testing) and as ongoing routine testing, Additional Cooperative Acceptance Testing, Additional Automatic Testing, and Additional Manual Testing are available as set forth in 13.3.1 following.

## 6. Switched Access Service (Cont'd)

#### **6.8** Description and Provision of Feature Group D (FGD)

## 6.8.1 <u>Description</u>

- (A) FGD Access, which is available to all customers, provides trunk side access to Telephone Company end office switches. Special Access Services utilized for connection with FGD at Telephone Company designated WATS Serving offices as set forth in Section 7. following may be ordered separately by a customer other than the customer which orders the FGD Switched Access Service for the provision of WATS or WATS-type services. Special Access Services are ordered as set forth in 5.2 preceding.
- (B) FGD is provided at Telephone Company designated end office switches whether routed directly or via Telephone Company designated electronic access tandem switches. The Telephone Company will designate the first point(s) of switching for FGD services where the Telephone Company elects to provide equal access through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.
- (C) FGD is provided as trunk side switching through the use of end office or access tandem switch trunk equipment. The switch trunk equipment is provided with wink start startpulsing signals and answer and disconnect supervisory signaling.
- (D) FGD switching is provided with multifrequency address signaling or out of band SS7 signaling. With multifrequency address signaling and SS7 signaling, up to 12 digits of the called party number dialed by the customer's end user using dual tone multifrequency or dial pulse address signals will be provided by Telephone Company equipment to the customer's premises where the Switched Access Service terminates. Such address signals will be subject to the ordinary transmission capabilities of the Local Transport provided.

## 6. <u>Switched Access Service</u> (Cont'd)

### 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.1 <u>Description</u> (Cont'd)

- FGD switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, community information services of an information service provider, and other customers' services (by dialing the appropriate codes) when such services can be reached using valid NXX codes. When directly routed to an end office, only those valid NXX codes served by that office may be accessed. When routed through an access tandem, only those valid NXX codes served by end offices subtending the access tandem may be accessed. The customer will also be billed additional non-access charges for calls to certain community information services, for which rates are applicable under Telephone Company exchange service tariffs, e.g., 976 (DIAL-IT) Network Service. Additionally, non-access charges will also be billed for calls from a FGD trunk to another customer's service in accordance with that customer's applicable service rates when the Telephone Company performs the billing function for that customer. Calls in the terminating direction will not be completed to 950-XXXX access codes, local operator assistance (0- and 0+), Directory Assistance (411 and 555- 1212), service codes 611 and 911 and 101XXXX access codes. Calls will be completed to Directory Assistance (NPA-555-1212 or 555-1212) when FGD switching is combined with Directory Assistance switching. The combination of FGD Switched Access Service with DA Service is provided as set forth in Section 9. following. FGD may not be switched, in the terminating direction, to Switched Access Service Feature Groups B, C or D.
- (F) The Telephone Company will establish a trunk group or groups for the customer at end office switches or access tandem switches where FGD switching is provided. When required by technical limitations, a separate trunk group will be established for each type of FGD switching arrangement provided. Different types of FGD or other switching arrangements may be combined in a single trunk group at the option of the Telephone Company

### 6. Switched Access Service (Cont'd)

### 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.1 <u>Description</u> (Cont'd)

(G) The access code for FGD switching is a uniform access code the form 101XXXX. A uniform access code(s) will be the assigned number of all FGD access provided to the customer by the Telephone Company. No access code is required for calls to a customer over FGD Switched Access Service if the end user's telephone exchange service is arranged for presubscription to that customer, as set forth in 13.4 following.

Where no access code is required, the number dialed by the customer's end user shall be a seven or ten digit number for calls in the North American Numbering Plan (NANP). For international calls outside the NANP, a seven to twelve digit number may be dialed. The form of the numbers dialed by the customer's end user is NXX-XXXX, 0 or 1 + NXX-XXXX, NPA + NXX-XXXX, 0 or 1 + NPA + NXX-XXXX, and, when the end office is equipped for International Direct Distance Dialing (IDDD), 01 + CC + NN or 011 + CC + NN.

When the 101XXXX access code is used, FGD switching also provides for dialing the digit 0 for access to the customer's operator, 911 for access to the Telephone Company's emergency reporting service, or the end-of-dialing digit (#) for cut-through access to the customer's premises.

Unless otherwise ordered by the F.C.C., when equal access is provided through a centralized equal access arrangement, the 101XXXX access code may not be available in certain equal access offices. Those offices which provide FGD Switched Access Service without the 101XXXX access code are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4.

- (H) FGD switching will be arranged to accept calls from telephone exchange service locations without the need for dialing 101XXXX uniform access code. Each telephone exchange service line may be marked with a code to identify which 101XXXX code its calls will be directed to for interLATA service.
- (I) Unless prohibited by technical limitations, the customer's Interim NXX Translation and/or 800 Data Base traffic may, at the option of the customer, be combined in the same trunk group arrangement with the customer's non-Interim NXX Translation and/or 800 Data Base traffic. When required by technical limitations, or at the request of the customer, a separate trunk group will be established for Interim NXX Translation and/or 800 Data Base traffic.

### 6. Switched Access Service (Cont'd)

### 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.1 <u>Description</u> (Cont'd)

- (J) When a customer has had FGB access in an end office and subsequently replaces the FGB access with FGD access, at the mutual agreement of the customer and the Telephone Company, the Telephone Company will direct calls dialed by the customer's end users using the customer's previous FGB access code to the customer's FGD access service. The customer must be prepared to handle normally dialed FGD calls, as well as calls dialed with the FGB access code which requires the customer to receive additional address signaling from the end user. Such calls will be rated as FGD. The Telephone Company may, with 90 days' written notice to the customer, discontinue this arrangement.
- (K) For FGD switched access service to a Wireless Switching Center (WSC) directly interconnected to a Telephone Company access tandem office, the customer will be billed only the Local Transport premium rate element for the FGD usage. The mileage used to determine the monthly rate for the local transport rate element is as set forth in 6.4.6(G) preceding.
- (L) A customer who has FGB access may elect to have their FGB traffic routed over FGD trunks at the end office or access tandem. If the customer elects this option the FGB traffic will be rated at FGD rates.

# 6.8.2 Optional Feature

Following are the various nonchargeable and chargeable optional features that are available in lieu of, or in addition to, the standard features provided with Feature Group D. Nonchargeable Optional Features are provided as Common Switching, Transport Termination and Local Transport options as set forth in (A) through (C) following. Chargeable optional features are set forth in (D) following.

# 6. Switched Access Service (Cont'd)

## 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.2 Optional Feature (Cont'd)

### (A) Common Switching Options

Descriptions of the common switching optional features are set forth in 6.10 following.

- (1) Automatic Number Identification (ANI)
- (2) Service Class Routing
- (3) Alternate Traffic Routing
- (4) <u>Trunk Access Limitation</u>
- (5) <u>Call Gapping Arrangement</u>
- (6) <u>International Carrier Option</u>
- (7) <u>Band Advance Arrangement for Use with Special Access Service Utilized in the</u> Provision of WATS or WATS-Type Services
- (8) End Office End User Line Service Screening for Use with Special Access Service
  Utilized in the Provision of WATS or WATS-Type Services
- (9) <u>Hunt Group Arrangement for Use with Special Access Service Utilized in the</u> Provision of WATS or WATS-Type Services
- (10) <u>Uniform Call Distribution Arrangement for Use with Special Access Service</u>
  Utilized in the Provision of WATS or WATS-Type Services
- (11) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call
  Distribution Arrangement for Use with Special Access Service Utilized in the
  Provision of WATS or WATS-Type Services
- (12) <u>Digital Switched 56 Service</u>

# 6. Switched Access Service (Cont'd)

## 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.2 Optional Features (Cont'd)

### (B) <u>Transport Termination Options</u>

#### (1) Operator Trunk - Full Feature

The Operator Trunk optional feature is set forth in 6.10.2(C) following.

## (C) <u>Local Transport Options</u>

### (1) <u>Supervisory Signaling</u>

The Supervisory Signaling optional feature, due to its technical nature, is set forth in 15.1.1 following.

## (2) <u>Signaling System 7 (SS7)</u>

The SS7 optional feature allows the customer to send and receive signals for out of band call set up and is available with Feature Group D. This option requires the establishment of a signaling connection between the customer's designated premises/Signaling Point of Interface (SPOI) and a Telephone Company's Signaling Transfer Point (STP).

SS7 is provided in both the originating and terminating direction on FGD and each signaling connection is provisioned for two-way SS7 signaling information.

- (3) <u>Multifrequency Address Signaling</u>
- (4) Calling Party Number (CPN) Parameter
- (5) Charge Number Parameter (CNP)
- (6) <u>Carrier Selection Parameter (CSP)</u>

# (7) <u>64 Clear Channel Capability</u>

The 64 Clear Channel Capability optional feature, due to its technical nature, is set forth in 15.1.1 following.

#### 6. Switched Access Service (Cont'd)

# 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

#### 6.8.2 Optional Features (Cont'd)

## (D) <u>Chargeable Optional Features</u>

#### (1) Interim NXX Translation

The Interim NXX Translation Optional Feature is set forth in 6.10.3(A) following.

# (2) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection</u> <u>Service (CCSNC)</u>

The CCSNC Optional Feature is provided as set forth in 6.10.3 following.

#### 6.8.3 <u>Design and Traffic Routing</u>

For Feature Group D, the Telephone Company shall design and determine the routing of Tandem Switched Transport Access, including the selection of the first point of switching and the selection of facilities from the interface to any switching point and to the end offices where busy hour minutes of capacity are ordered. The Telephone Company shall also decide if capacity is to be provided by originating only, terminating only, or two-way trunk groups. Finally, the Telephone Company will decide whether trunk side access will be provided through the use of two-wire or four-wire trunk terminating equipment.

For Feature Group D Direct Trunked Transport service, the Telephone Company will determine the routing of Switched Access Service from the point of interface to the first point of switching or, if the customer specifies one or more hub locations for multiplexing, from the point of interface to the hub location, from one hub location to another hub location, and/or from a hub location to the first point of switching.

Selection of facilities and equipment and traffic routing of the service is based on standard engineering methods, available facilities and equipment, and actual traffic patterns. If the customer desires routing or directionality different from that determined by the Telephone Company, the Telephone Company will work cooperatively with the customer in determining (1) whether the service is to be routed directly to an end office or through an access tandem switch and (2) the directionality of the service; except the Telephone Company will designate the first point(s) of switching and routing to be used where equal access is provided through a centralized equal access arrangement. Those Telephone Company offices providing equal access through centralized arrangements are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

#### 6. Switched Access Service (Cont'd)

#### 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.4 Measuring Access Minutes

Customer traffic to end offices will be recorded at end office switches or access tandem switches. Originating and terminating calls will be measured or derived to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because the Telephone Company lost or damaged tapes or incurred recording system outages, the Telephone Company will estimate the volume of lost customer access minutes of use based on previously known values.

FGD access minutes or fractions thereof, the exact value of the fraction being a function of the switched technology where the measurement is made, are accumulated over the billing period for each end office, and are then rounded up to the nearest access minute for each end office.

#### Originating Usage

For originating calls over FGD the measured minutes are the chargeable access minutes.

For originating calls over FGD provided with Multi-Frequency Signaling, usage measurement begins when the originating FGD first point of switching receives the first wink supervisory signal forwarded from the customer's point of termination.

For originating calls over FGD provided with Signaling System 7 (SS7) Signaling when the FGD end office is not routed through an access tandem for connection to the customer, usage measurement begins when the SS7 Initial Address Message is sent from the Service Switching Point (SSP) to the Signal Transfer Point (STP).

For originating calls over FGD provided with Signaling System 7 (SS7) Signaling when the FGD end office is routed through a tandem for connection to the customer, usage measurement begins when the FGD end office receives the SS7 Exit Message from the tandem.

The measurement of originating call usage over FGD provided with Multi-Frequency Signaling ends when the originating FGD first point of switching receives disconnect supervision from either the originating end user's end office, indicating the originating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

The measurement of originating calls usage over FGD provided with SS7 Signaling ends when the originating FGD end office receives an SS7 Release Message indicating either the originating or terminating end user has disconnected.

#### 6. Switched Access Service (Cont'd)

#### 6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

## 6.8.4 Measuring Access Minutes (Cont'd)

#### **Terminating Usage**

For terminating calls over FGD the chargeable access minutes are either measured or derived.

For terminating calls over FGD provided with Multifrequency Signaling where measurement capability exists, the measurement of chargeable access minutes begins when the terminating FGD first point of switching receives answer supervision from the terminating end user's end office, indicating the terminating end user has answered. This measurement ends when the terminating FGD first point of switching receives disconnect supervision from either the terminating end user's end office, indicating the terminating end user has disconnected, or the customer's point of termination, whichever is recognized first by the first point of switching.

For terminating calls over FGD, where measurement capability does not exist, terminating FGD usage is derived from originating usage, excluding usage from calls to closed end services or Directory Assistance Services.

For terminating calls over FGD with SS7 signaling, usage measurement begins when the terminating recording switch receives answer supervision from the terminating end user. The Telephone Company switch receives answer supervision and sends the indication to the customer in the form of an answer message. The measurement of terminating FGD call usage ends when the entry switch receives or sends a release message, whichever occurs first.

#### 6.8.5 <u>Design Blocking Probability</u>

The Telephone Company will design the facilities used in the provision of Switched Access Service FGD to meet the blocking probability criteria as set forth in (A) and (B) following.

- (A) For Feature Group D, the design blocking objective will be no greater then one percent (.01) between the point of termination at the customer's designated premises and the end office switch, whether the traffic is directly routed without an alternate route or routed via an access tandem. Standard traffic engineering methods as set forth in reference document Telecommunications Transmission Engineering Volume 3 Networks and Services (Chapters 6-7) will be used by the Telephone Company to determine the number of transmission paths required to achieve this level of blocking.
- (B) The Telephone Company will perform routine measurement functions to assure that an adequate number of transmission paths are in service. The Telephone Company will recommend that additional capacity (i.e., busy hour minutes of capacity or trunks) be ordered by the customer when additional paths are required to reduce the measured blocking to the designed blocking level. For the capacity ordered, the design blocking objective is assumed to have been met if the routine measurements show that the measured blocking does not exceed the threshold listed in the following tables.

## 6. Switched Access Service (Cont'd)

## 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

# 6.8.5 <u>Design Blocking Probability</u> (Cont'd)

- (B) (Cont'd)
  - (1) For transmission paths carrying only first routed traffic direct between an end office and customer's designated premises without an alternate route, and for paths carrying only overflow traffic, the measured blocking thresholds are as follows:

Measured Blocking Thresholds

	in the Time Consistent Busy Hour						
Number of		for the Number of Measurements					
Transmission Paths	Taken Between 8:00 a.m. and 11:00 p.m.						
Per Trunk Group	Per Trunk Group						
	15-20	11-14	7-10	3-6			
	Measurements	Measurements	Measurements	Measurements			
2	7%	8%	9%	14%			
3	5%	6%	7%	9%			
4	5%	6%	7%	8%			
5-6	4%	5%	6%	7%			
7 or more	3%	3.5%	4%	6%			

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

	Measured Blocking Thresholds				
		in the Time Consistent Busy Hour			
Number of	for the Number of Measurements				
Transmission Paths	Taken Between 8:00 a.m. and 11:00 p.m.				
Per Trunk Group	Per Trunk Group				
<del></del>	15-20	11-14	7-10	3-6	
	Measurements	<u>Measurements</u>	Measurements	<u>Measurements</u>	
2	4.5%	5.5%	6.0%	9.5%	
3	3.5%	4.0%	4.5%	6.0%	
4	3.5%	4.0%	4.5%	5.5%	
5-6	2.5%	3.5%	4.0%	4.5%	
7 or more	2.0%	2.5%	3.0%	4.0%	

## 6. Switched Access Service (Cont'd)

#### 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

## 6.8.6 Network Blocking Charge

The customer will be notified by the Telephone Company to increase its capacity (busy hour minutes of capacity or quantities of trunks) when excessive trunk group blocking occurs on groups carrying Feature Group D traffic and the measured access minutes for that hour exceed the capacity purchased. Excessive trunk group blocking occurs when the blocking thresholds stated below are exceeded. They are predicated on time consistent, hourly measurements over a 30 day period excluding Saturdays, Sundays and national holidays. If the order for additional capacity has not been received by the Telephone Company within 15 days of the notification, the Telephone Company will bill the customer, at the rate set forth in 17.2.2 following, for each overflow in excess of the blocking threshold when (1) the average "30 day period" overflow exceeds the threshold level for any particular hour and (2) the "30 day period" measured average originating or two-way usage for the same clock hour exceeds the capacity purchased.

#### **Blocking Thresholds**

Trunks in Service		<u>1%</u>		1/2%
1-2		7%		4.5%
3-4		5%		3.5%
5-6		4%		2.5%
7 or greater	3%		2.0%	

The 1% blocking threshold is for transmission paths carrying traffic direct (without an alternate route) between an end office and a customer's premises. The 1/2% blocking threshold is for transmission paths carrying first routed traffic between an end office and a customer's premises via an access tandem.

#### 6. Switched Access Service (Cont'd)

#### 6.8 Description and Provision of Feature Group D (FGD) (Cont'd)

#### 6.8.7 <u>Testing Capabilities</u>

FGD is provided, in the terminating direction where equipment is available, with seven digit access to balance (100 type) test line, milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, data transmission (107 type) test line, loop around test line, short circuit test line and open circuit test line. In addition to the tests described in 6.2.4 preceding, which are included with the installation of service (Acceptance Testing) and as ongoing routine testing, Additional Cooperative Acceptance Testing, Additional Automatic Testing, and Additional Manual Testing, are available as set forth in 13.3.1 following.

When SS7 Signaling is ordered, network compatibility and other testing will be performed cooperatively by the Telephone Company and the customer as specified in Technical References TR-TSV 000905.

- 6. Switched Access Service (Cont'd)
  - 6.9 Reserved For Future Use
  - 6.10 Chargeable and Nonchargeable Optional Features

Following are descriptions of the various optional features that are available in lieu of, or in addition to, the standard features provided with the Feature Groups. They are provided as Common Switching, Transport Termination or Interim NXX Translation options. Local Transport options associated with Common Channel Signaling Network Connection Service (CCSNC) are described in 6.10.1 following. All other Local Transport options, due to their technical nature, are described in 15.1.1 following.

# 6. Switched Access Service (Cont'd)

# 6.10 Common Switching, Transport Termination and Interim NXX Translation Optional Features (Cont'd)

# **6.10.1** Common Switching Nonchargeable Optional Features

The following table shows the Feature Group with which the optional features are available.

	Avai	Available Feature Groups		
<u>Option</u>	<u>A</u>	B	C	Ď
A) Call Denial on Line or Hunt Group	$\overline{X}$	_		_
B) Service Code Denial on Line or Hunt Group	X			
C) Hunt Group Arrangement	X			
D) Uniform Call Distribution Arrangement	X			
E) Nonhunting Number for Use with Hunt Group				
or Uniform Call Distribution Arrangement	X			
F) Automatic Number Identification (ANI)	X	X	X	
G) Up to 7 Digit Outpulsing of Access Digits				
to Customer		X		
H) Delay Dial Start-Pulsing Signaling			X	
I) Immediate Dial Pulse Address Signaling		X		
J) Dial Pulse Address Signaling			X	
K) Service Class Routing			X	X
L) Alternate Traffic Routing		X	X	X
M) Trunk Access Limitation			X	X
N) Call Gapping Arrangement				X
O) International Carrier Option				X
P) Band Advance Arrangement for Use with Special				11
Access Service Utilized in the Provision of				
WATS or WATS-Type Services	X	X	X	X
Q) End Office End User Line Service Screening	11	21	21	11
for Use with Special Access Service Utilized				
in the Provision of WATS or WATS-Type Services			X	X
R) Hunt Group Arrangement for Use with Special				11
Access Service Utilized in the Provision of				
WATS or WATS-Type Services	X	X	X	X
S) Uniform Call Distribution Arrangement for Use	11			11
with Special Access Service Utilized in the				
Provision of WATS or WATS-Type Services	X	X	X	X
T) Nonhunting Number Associated with Hunt Group	11	21	21	11
Arrangement or Uniform Call Distribution				
Arrangement for Use with Special Access				
Service Utilized in the Provision of WATS				
or WATS-Type Services	X	X	X	X
U) Digital Switched 56 Service	11		X	X
V) Multifrequency Address Signaling			X	X
W) Signaling System 7 (SS7) Signaling			X	X
X) Calling Party Number (CPN)			X	X
Y) Carrier Selection Parameter (CSP)				X
Z) Charge Number Parameter (CNP)			X	X
_,o-				

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#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

## (A) <u>Call Denial on Line or Hunt Group</u>

This option allows for the screening of terminating Feature Group A calls. There are two screening arrangements available with this option as follows: 1) limiting terminating calls for completion to only 411 or 555-1212 whichever is available, 611, 911, 800 series and a Telephone Company specified set of NXXs within the Telephone Company local exchange calling area of the dial tone office in which the arrangement is provided, or, 2) limiting terminating calls to completion to only the NXXs associated with all end offices in the LATA, i.e., the call cannot be further switched or routed out of the LATA nor will calls be completed to 411 or 555-1212 whichever is available, 611, 911, or 800 series. All other calls are routed to a reorder tone or recorded announcement. Arrangement 1 is provided in all Telephone Company electronic end offices and, where available, in electromechanical end offices. Arrangement 2 is provided where available. This feature is available with Feature Group A.

#### (B) Service Code Denial on Line or Hunt Group

This option allows for the screening of terminating calls within the LATA, and for disallowing completion of calls to 0-, 555 and N11 (e.g., 411, 611, and 911). This feature is provided where available in all Telephone Company end offices. It is available with Feature Group A.

#### (C) Hunt Group Arrangement

This option provides the ability to sequentially access one of two or more line side connections in the originating direction, when the access code of the line group is dialed. This feature is provided in all Telephone Company end offices. It is available with Feature Group A. All Feature Group A access services in the same hunt group must provide off-hook supervisory signaling from the same point in time in the call sequence i.e., all off-hook supervisory signals must either be provided by the customer's equipment before the called party answers or all must be forwarded by the customer's equipment when the called party answers.

## (D) Uniform Call Distribution Arrangement

This option provides a type of multiline hunting arrangement which provides for an even distribution of calls among the available lines in a hunt group. Where available, this feature is provided in Telephone Company electronic end offices only. It is available with Feature Group A.

## 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(E) <u>Nonhunting Number for Use with Hunt Group or Uniform Call</u> <u>Distribution</u>
Arrangement

This option provides an access to an individual line within a multiline hunt or uniform call distribution group. When the nonhunting number is dialed, access is provided when it is idle, or busy tone is provided when it is busy. Where available, this feature is provided in Telephone Company electronic end offices only. It is available with Feature Group A.

#### (F) Automatic Number Identification (ANI)

- (1) This option provides the automatic transmission of a seven digit or ten digit number and information digits to the customer designated premises for calls originating in the LATA, to identify the calling station. The ANI feature is an end office software function which is associated on a call-by-call basis with:
  - (a) all individual transmission paths in a trunk group routed directly between an end office and a customer designated premises or, where technically feasible, with
  - (b) all individual transmission paths in a trunk group between an end office and an access tandem, and a trunk group between an access tandem and a customer designated premises.
- (2) The seven digit ANI telephone number is generally available with Feature Groups B and C. With these Feature Groups, technical limitations may exist in Telephone Company switching facilities which require ANI to be provided only on a directly trunked basis. ANI will be transmitted on all calls except those originating from multiparty lines, pay telephones using Feature Group B, or when an ANI failure has occurred. Seven digit ANI is not available with SS7 Signaling.
- (3) The ten digit ANI telephone number is only available with Feature Group D. The ten digit ANI telephone number consists of the Numbering Plan Area (NPA) plus the seven digit ANI telephone number. The ten digit ANI telephone number will be transmitted on all calls except those identified as multiparty line or ANI failure, in which case only the NPA will be transmitted (in addition to the information digit described below). Ten digit ANI is provided with multifrequency address signaling or SS7 signaling.

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# 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

- (F) Automatic Number Identification (ANI) (Cont'd)
  - (4) With Feature Group C, at the option of the customer, ANI may be ordered from end offices where Telephone Company recording for end user billing is not provided. Additionally, ANI is provided from end offices where message detail recording is not required by the Telephone Company; as with 800 series service. ANI is not provided from end offices where the Telephone Company forwards ANI to its recording equipment.
  - (5) Where complete ANI detail cannot be provided, e.g., on calls from 4 and 8 party services, information digits will be provided to the customer.

The information digits identify:

- (a) telephone number is the station billing number no special treatment required,
- (b) multiparty line telephone number is a 4- or 8-party line and cannot be identified - number must be obtained via an operator or in some other manner,
- (c) ANI failure has occurred in the end office switch which prevents identification of calling telephone number - must be obtained by operator or in some other manner,
- (d) hotel/motel originated call which requires room number identification,
- (e) coinless station, hospital, inmate, etc. call which requires special screening or handling by the customer, and
- (f) call is an Automatic Identified Outward Dialed (AIOD) call from customer premises equipment. The AIOD ANI telephone number is the listed telephone number of the customer and is not the telephone number of the calling party.

These ANI information digits are generally available with Feature Groups B, C, and D.

## 6. Switched Access Service (Cont'd)

## 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

- (F) <u>Automatic Number Identification (ANI)</u> (Cont'd)
  - (6) Additional ANI information digits are available with Feature Group D also. They include:
    - (a) InterLATA restricted telephone number is identified line
    - (b) InterLATA restricted hotel/motel line
    - (c) InterLATA restricted coinless, hospital, inmate, etc., line

These information digits will be transmitted as agreed to by the customer and the Telephone Company.

Flexible Automatic Number Identification (Flex ANI) is an enhancement to ANI and is offered as a Common Switching Chargeable Option of Feature Group D as described in 6.10.3(E) following.

#### (7) Restrictions on Use and Sale of ANI

- (a) Interstate access customers of this tariff may use ANI in the following manner:
  - (i) For billing and collection information, for routing, screening, and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use ANI to offer a product or service that is directly related to the products or services previously acquired from the customer by the originating subscriber.

## 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

- (F) <u>Automatic Number Identification (ANI)</u> (Cont'd)
  - (7) Restrictions on Use and Sale of ANI (Cont'd)
    - (b) Interstate access customers of this tariff <u>may not</u> use ANI in the following manner:
      - (i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber <u>and</u> obtaining the affirmative consent of such subscriber for such reuse or sale.
      - (ii) Disclosing (except as permitted in (a), preceding), any information derived from the ANI for any purpose other than 1) performing the services or transactions that are the subject of the originating subscriber's call, 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling, using, and disclosing aggregate information, and 4) complying with applicable law or legal process.

# (G) <u>Up to 7 Digit Outpulsing of Access Digits to Customer</u>

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

## (H) <u>Delay Dial Start-Pulsing Signaling</u>

Where available, this option provides a method of indicating to the near end trunk circuit readiness to accept address signaling information by the far end trunk circuit. Delay dial is often referred to as an off-hook, on-hook signaling sequence. The delay dial signal is the off-hook interval and the start-pulsing signal is the on-hook interval. With integrity check, the calling office will not outpulse until a delay dial (off-hook) signal followed by a start-pulsing (on-hook) signal has been identified at the calling office. This option is available with Feature Group C.

## 6. Switched Access Service (Cont'd)

## 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

#### 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

## (I) Immediate Dial Pulse Address Signaling

Where available, this option provides for the forwarding of dial pulses from the Telephone Company end office to the customer without the need of a start-pulsing signal from the customer. It is available with Feature Group C.

#### (J) Dial Pulse Address Signaling

Where available, this trunk side option provides for the transmission of number information, e.g., called number, between the end office switching system and the customer designated premises (in either direction) by means of direct current pulses. It is available with Feature Group C.

#### (K) Service Class Routing

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

## (L) Alternate Traffic Routing

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

#### (M) Trunk Access Limitation

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

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

## (N) <u>Call Gapping Arrangement</u>

This option, provided in suitably equipped end office switches, provides for the routing of originating calls to 900 service to be switched in the end office to all transmission paths in a trunk group at a prescribed rate of flow, e.g., one call every five seconds, in order to limit (choke) the completion of such traffic to the customer. Calls to the designated service which are denied access by this feature, i.e., the choked calls, would be routed to a no-circuit announcement. It is provided in selected Feature Group D equipped end offices and is available only with Feature Group D.

# (O) <u>International Carrier Option</u>

This option allows for Feature Group D end offices or access tandem switches equipped for International Direct Distance Dialing to be arranged to forward the international calls of one or more international carriers to the customer (i.e., the Telephone Company is able to route originating international calls to a customer other than the one designated by the end user either through presubscription or 101XXXX dialing). This arrangement requires provision of written verification to the Telephone Company that the customer is authorized to forward such calls. The written verification must be in the form of a letter of agency authorizing the customer to order the option on behalf of the international carrier. This option is only provided at Telephone Company end offices or access tandems equipped for International Direct Distance Dialing, and is available with Feature Group D.

# (P) <u>Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services</u>

This option, which is provided in association with two or more Special Access Service groups, provides for the automatic overflow of terminating calls to a second Special Access Service group, when the first group has exceeded its call capacity. This option is available with Feature Groups A, B, C and D.

## 6. <u>Switched Access Service</u> (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

(Q) End Office End User Line Service Screening for Use with Special Access Service
Utilized in the Provision of WATS or WATS-Type Services

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

(R) <u>Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services</u>

This option provides the ability to sequentially access one of two or more Special Access Services utilized in the provision of WATS services (e.g., 800 Series Service Special Access services) in the terminating direction, when the hunting number of the Special Access Service group is forwarded from the customer to the Telephone Company. This feature is provided in all Telephone Company designated WATS Access Serving Offices. It is available with Feature Groups A, B, C and D.

(S) <u>Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in</u> the Provision of WATS or WATS-Type Services

This option provides a type of multiline hunting arrangement which provides for an even distribution of terminating calls among the available Special Access Lines utilized in the provision of WATS or WATS-Type Services in the hunt group. Where available, this feature is only provided in Telephone Company designated WATS Serving Offices. It is available with Feature Groups A, B, C and D.

(T) Nonhunting Number Associated with Hunt Group Arrangement or Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

This option provides an arrangement for an individual Special Access Service utilized in the provision of WATS or WATS-Type Services within a multiline hunt or uniform call distribution group that provides access to that Special Access Service within the hunt or uniform call distribution group when it is idle or provides busy tone when it is busy, when the nonhunting number is dialed, without hunting to the next idle number. Where available, this feature is only provided in Telephone Company designated WATS Serving Offices. It is available with Feature Groups A, B, C and D.

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)

#### (U) <u>Digital Switched 56 Service</u>

This option provides for a connection between a customer's premise and a suitably equipped end user's premise which uses end office switching and facilities capable of transmitting digital data up to 56 kilobits per second. Digital Switched 56 Service is only available in appropriately provisioned Feature Group C and Feature Group D offices as set forth in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

## (V) <u>Multifrequency Address Signaling</u>

Multifrequency Address Signaling is available as an optional feature with FGC and FGD. This feature provides for the transmission of number information and control signals (e.g., number address signals, automatic number identification) between the end office switch and the customer's premises (in either direction). Multifrequency signaling arrangements make use of pairs of frequencies out of a group of six frequencies. Specific information transmitted is dependent upon feature group and call type (i.e., POTS, coin or operator). This feature is not available in combination with SS7 signaling.

## (W) Signaling System 7 (SS7) Signaling

This feature provides common channel out of band transmission of address and supervisory SS7 protocol signaling information between the end office switch or the tandem office switching system and the customer's designated premises. The signaling information is transmitted over facilities provided with the Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC) as specified in 6.1.3(A)(8) preceding. This feature is available with FGC and FGD and will be provided in accordance with the SS7 Interconnect specifications described in Technical Reference TR-TSV-000905.

## (X) <u>Calling Party Number (CPN)</u>

This feature provides for the automatic transmission of the ten digit telephone number, associated with a calling station, to the customer's premises for calls originating in the LATA. The ten digit telephone number consists of the NPA plus the seven digit telephone number, which may or may not be the same number as the calling station's charge number. The ten digit telephone number will be coded as presented, or restricted via a "privacy indicator" for delivery to the called end user. This feature is automatically provided with originating FGC and FGD with SS7 signaling. CPN is available where technically feasible.

- 6. Switched Access Service (Cont'd)
  - 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)
    - 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)
      - (X) <u>Calling Party Number (CPN)</u> (Cont'd)
        - (1) Restrictions on Use and Sale of CPN
          - (a) Intrastate access customers of this tariff may use CPN in the following manner:
            - (i) For billing and collection information, for routing, screening, and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use CPN to offer a product or service that is directly related to the products or services previously acquired from the customer by the originating subscriber.

- (b) Intrastate access customers of this tariff <u>may not</u> use CPN in the following manner:
  - (i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber <u>and</u> obtaining the affirmative consent of such subscriber for such reuse or sale.
  - (ii) Disclosing (except as permitted in (a), preceding) any information derived from the CPN for any purpose other than 1) performing the services or transactions that are the subject of the originating subscriber's call 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling, using, and disclosing aggregate information, and 4) complying with applicable law or legal process.
- (Y) Carrier Selection Parameter (CSP)

This feature provides for the automatic transmission of a signaling indicator which signifies to the customer whether or not the call being processed originated from a presubscribed line. If the line was presubscribed, the indicator will signify if the end user did or did not dial 101XXXX. This feature is provided with originating FGD with SS7 signaling.

- 6. Switched Access Service (Cont'd)
  - 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)
    - 6.10.1 Common Switching Nonchargeable Optional Features (Cont'd)
      - (Z) <u>Charge Number Parameter (CNP)</u>
        - (1) The CNP is equivalent to the existing ten digit Automatic Number Identification (ANI) available with FGC where technically feasible and FGD with MF signaling. The CNP provides for the automatic transmission of the ten digit billing number of the calling station and the originating line information. This feature is provided with originating FGC and FGD with SS7 signaling.
        - (2) Restrictions on Use and Sale of CNP
          - (a) Intrastate access customers of this tariff may use CNP in the following manner:
            - (i) For billing and collection information, for routing, screening and completing the originating subscriber's call or transaction, or for services directly related to the originating telephone subscriber's call or transaction.

The customer may use CNP to offer a product or service that is directly related to the products or services previously acquired from the customer by the originating subscriber.

- (b) Intrastate access customers of this tariff <u>may not</u> use CNP in the following manner:
  - (i) Reusing or selling the telephone number or billing information without first notifying the originating telephone subscriber <u>and</u> obtaining the affirmative consent of such subscriber for such reuse or sale.
  - (ii) Disclosing, except as permitted in (a), preceding, any information derived from the CNP for any purpose other than 1) performing the services or transactions that are the subject of the originating subscriber's call, 2) ensuring network performance security and the effectiveness of call delivery, 3) compiling, using, and disclosing aggregate information, and 4) complying with applicable law or legal process.

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.2 <u>Transport Termination Nonchargeable Optional Features</u>

# (A) Rotary Dial Station Signaling

This option provides for the transmission of called party address signaling from rotary dial stations to the customer designated premises for originating calls. This option is provided in the form of a specific type of Transport Termination. It is available with Feature Group B, only on a directly trunked basis.

#### (B) Operator Trunk - Coin, Non-Coin, or Combined Coin and Non-Coin

This option may be ordered to provide coin, non-coin, or combined coin and non-coin operation. It is available only with Feature Group C and is provided in electronic end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of Transport Termination.

## Coin, Non-Coin

This arrangement provides for initial coin return control, except in the case of non-coin, and routing of 0+, 0-, 1+, 01+ or 011+ prefixed originating coin and non-coin calls requiring operator assistance to the customer designated premises. Because operator assisted coin calling traffic is routed over a trunk group dedicated to operator assisted calls, this arrangement is only provided in association with the Service Class Routing option.

This arrangement is normally ordered by the customer in conjunction with the ANI optional feature, since the preponderance of trunk groups equipped with this arrangement will be terminated in the customer's automated operator services systems, rather than in the customer's manual cord boards.

#### Combined Coin and Non-Coin

When so equipped, the ANI optional feature provides for the forwarding of information digits which identify that the call has originated from a hotel or motel, and whether room number identification is required, or that special screening is required, e.g., for coinless pay telephones, dormitory or inmate stations, or other screening arrangements agreed to between the customer and the Telephone Company.

## (C) Operator Trunk - Full Feature

This option provides the initial coin return control function to the customer's operator. It is available with Feature Group D and is provided as a trunk type for Transport Termination. This feature is not available with SS7 signaling.

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

# 6.10.3 <u>Chargeable Optional Features</u>

#### (A) Interim NXX Translation

This service is an originating offering utilizing trunk side Switched Access Service and provides a customer identification function based on the dialed SAC and NXX code.

For example, when a 1+900+NXX-XXXX call is originated by an end user, the Telephone Company will perform the customer identification function based on the dialed digits to determine the customer location to which the call is to be routed. If the call originates from an end office switch not equipped to provide the customer identification function, the call will be routed to an office at which the function is available. Once customer identification has been established, the call will be routed to that customer. Calls originating from an end office switch at which the customer identification function is performed, but to which the customer has not ordered Interim NXX Translation, will be blocked. Calls to a 900 number from coin telephones, 0+, 0-, 101XXXX, Inmate Service, Hotel/Motel Service and calling card calls will be blocked.

Calls to a 900 number dialed via 1+ from coin telephones, 0-, 101XXXX, Inmate Service, and Hotel/Motel Service will be blocked. Calls to a 900 number dialed via 0+ will normally be blocked. Orders received from customers to unblock 0+ calls to a 900 number will be accommodated where suitably equipped facilities exist.

The manner in which Interim NXX Translation is provided is dependent on the status of the end office from which the service is provided (i.e., equipped with equal access capabilities or not equipped with equal access capabilities). When Interim NXX Translation is provided from an end office not equipped with equal access capabilities, it will be provided in conjunction with FGC Switched Access Service.

The charge for Interim NXX Translation is as set forth in 17.1.7 following.

## (B) <u>Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC)</u>

Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection Service (CCSNC), which is available with Feature Group C and D, where technically feasible as designated in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF FCC NO. 4, WIRE CENTER INFORMATION, provides a signaling path between a customer's designated Signaling Point of Interface (SPOI) and a Signaling Transfer Point (STP). This service provides customers with the use of a two-way signaling path for accessing information necessary for the completion of their end user's calls.

## 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.3 Chargeable Optional Features (Cont'd)

(B) <u>Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC)</u> (Cont'd)

CCS/SS7 Network Connection Service is comprised of two parts; a Signaling Network Access Link (SNAL, consisting of Signaling Mileage Facility, Signaling Mileage Termination and Signaling Entrance Facility) and a Signaling Transfer Point (STP) Port. The SNAL is provided as a dedicated 56 Kpbs out-of-band signaling connection between the customer's SPOI and the STP Port on the STP.

The CCS/SS7 Network Connection Service is provisioned by a mated pair of STPs as described in Technical Reference TR-TSV 000905 in order to ensure network availability and reliability. The Telephone Company shall not be held liable for service outages if the customer employs technology related to the interconnection of signaling networks that do not adhere to generally accepted industry technical standards.

When CCS/SS7 Network Connection service is provisioned for use with SS7 Signaling, interconnection between signaling networks must occur at an STP.

Rates and charges for the CCS/SS7 Network Connection STP Ports and Signaling Network Access Links are contained in 17.2.2 following.

#### (C) 800 Data Base Access Service

800 Data Base Access Service is provided with FGC or FGD switched access service. When a 1+800series+NXX-XXXX call is originated by an end user, the Telephone Company will utilize the Signaling System 7 (SS7) network to query an 800 data base to perform the identification function. The call will then be routed to the identified customer over FGC or FGD switched access. The 800 series includes the following service area codes: 800, 888, 877, 866, 855, 844, 833 and 822.

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.3 Chargeable Optional Features (Cont'd)

#### (C) 800 Data Base Access Service (Cont'd)

The manner in which 800 data base access service is provided is dependent on the availability of SS7 service at the end office from which the service is provided as outlined following:

- When 800 data base access service originates at an end office equipped with Service Switching Point (SSP) capability for querying centralized data bases or at a non-SSP equipped end office that can accommodate direct trunking of originating 800 series calls, all such service will be provisioned from that end office.
- When 800 data base access service originates at an end office not equipped with SSP customer identification capability, the 800 series call will be delivered to the access tandem on which the end office is homed for 800 series service and which is equipped with the SSP feature to query centralized data bases.

When 800 data base access service originates at an end office equipped with SSP capability that is not capable of accommodating direct trunking of originating 888 calls, the 888 call will be delivered to the access tandem on which the end office is homed and which is equipped with the SSP feature to query centralized data bases.

Query charges as set forth in 17.2.2 following are in addition to those charges applicable for the Feature Group C or Feature Group D switched access service.

#### (D) Flexible Automatic Number Identification (Flex ANI)

Flex ANI is a Common Switching Optional Feature that enhances the existing Automatic Number Identification (ANI) optional feature (described in 6.10.1(F) preceding by allowing Feature Group D (FGD) customers to receive additional information digits. Flex ANI provides additional values for these information digits over and above the values currently available with ANI and is used to identify additional call types, e.g., calls originating from LEC payphones, competitive payphones, and private virtual networks. Flex ANI can be used to provide Originating Line Screening (OLS) service. OLS service is described in 13.10 following.

#### 6. Switched Access Service (Cont'd)

#### 6.10 Chargeable and Nonchargeable Optional Features (Cont'd)

## 6.10.3 Chargeable Optional Features (Cont'd)

#### (D) Flexible Automatic Number Identification (Flex ANI) (Cont'd)

Flex ANI information digits are two digits in length and are activated through switched software program updates. These codes precede the 10-digit directory number of the calling line and are part of the signaling protocol in equal access end offices. The information digits are outpulsed by the switching system along with the directory number from the originating end offices and are sent to the receiving office for billing, routing, or special handling purposes.

Customers who have ANI but do not order Flex ANI, will continue to receive the information digits associated with ANI. Flex ANI digits are assigned by the North American Numbering Plan Administrator. The Telephone Company will make available those information digits that are mutually agreed to by the customer and the Telephone Company.

Flex ANI is available to customers with FGD Switched Access Service equipped with ANI. Flex ANI is available in suitably equipped end offices as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

A nonrecurring charge, as set forth in 17.1 following, is associated with this optional feature. This nonrecurring charge is assessed by the Telephone Company on a per end office, per Carrier Identification Code (CIC) basis and is applied in conjunction with the Access Order Charge specified in 17.1.3 following.

## (E) <u>Carrier Identification Parameter (CIP)</u>

This feature enables customers to consolidate trunk groups to provide Equal Access connections for the carrier and its reseller carriers over one trunk group. The Carrier Identification Parameter (CIP) software delivers the Carrier Identification Code (CIC) in the initial address message (IAM) from an originating local exchange network on Feature Group D (FGD), SS7-supported calls. These calls include CIP for FGD, 700, 900+NXX & 800/888/877 Database type calls. Presubscribed carrier information in CIP will be used for normal 1+ presubscribed calls. This enables the information to be sent in the forward direction to the transit network indicating the transit network selected by the originating subscriber. This feature is offered on a per-carrier basis, see 17.2.2 for rates.

## 7. Special Access Service

## 7.1 General

Special Access Service provides a transmission path to directly connect an IC terminal location and an end user premises {1}, two IC terminal locations, an IC terminal location and a Hub or two end users premises. Special Access Service includes all exchange access not utilizing Telephone Company end office switches. This type of Access Service is used, for example, by ICs for the provision of private line service.

The connections provided by Special Access Service can be either analog or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate. The specific types of services (e.g., Narrowband, Voice Grade, Wideband Digital) provided under Special Access Service are described in Section 7.2 following.

## 7.1.1 <u>Rate Categories</u>

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

- Access Connection
- Channel Mileage
- Features and Functions
- Special Access Line

Unless specifically stated otherwise, each of the rate categories will apply for each Special Access Service provided to an IC.

[1] Telephone Company Centrex CO-like switches are considered to be end users premises for purposes of this tariff.

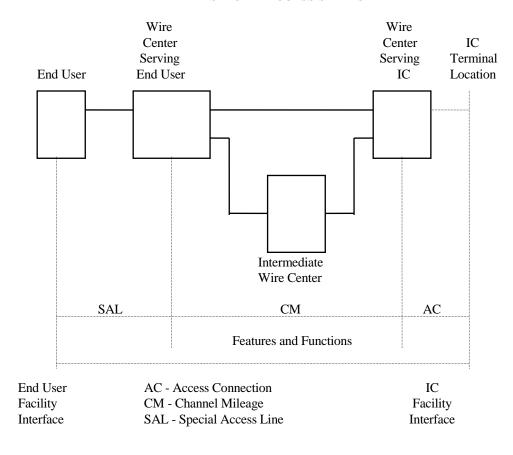
# 7. <u>Special Access Service</u> (Cont'd)

# 7.1 <u>General</u> (Cont'd)

# 7.1.1 <u>Rate Categories</u> (Cont'd)

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

#### SPECIAL ACCESS SERVICE



## 7. <u>Special Access Service</u> (Cont'd)

#### 7.1 <u>General</u> (Cont'd)

## 7.1.1 Rate Categories (Cont'd)

#### (A) Access Connection

This rate category provides a channel between the IC terminal location and the wire center serving the IC terminal location. This rate category varies by type of facility.

#### (B) Special Transport

This rate category provides the actual physical transmission facilities between (1) an IC terminal location serving wire center and the end user serving wire center, (2) an IC terminal location serving wire center and a Hub, and (3) a Hub and the end user serving wire center. The facilities may be either analog or digital. This rate category has a fixed rate portion plus is distance sensitive and varies by type of facility.

## (C) Features and Functions

This rate category provides available facility interface combinations (including signaling), Hub functions (i.e., bridging and multiplexing) and optional features or functions that improve the quality or utility of a service to meet specific communications requirements. In addition, there is a separate charge for Voice Grade Performance which is also included in this rate category. The Voice Grade Performance charge applies for all Voice Grade Services (i.e., VG1-13) ordered by the IC.

#### (D) Special Access Line

This rate category provides a channel between the wire center serving the end user premises and the end user premises. This rate category varies by type of facility.

ISSUED: July 13, 2006 EFFECTIVE: July 17, 2006

## 7. <u>Special Access Service</u> (Cont'd)

## 7.1 <u>General</u> (Cont'd)

#### 7.1.2 Facility Interface (FI) Combinations

When ordering Special Access Service, the IC must specify the facility interface (FI) that is desired for the service ordered. The FI defines the technical characteristics associated with the type of signaling and type of facilities presented for connection to the Access Service at both the IC terminal location and the end user premises.

The FI's specified for the IC terminal location and the end user premises may be asymmetrical or symmetrical. However, only certain combinations are technically possible. Therefore, for purposes of this tariff, FIs are being described in terms of available combinations for all services. These combinations are set forth in Section 7.2 following.

#### 7.1.3 Optional Features and Function

Optional features and functions may be added to a service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific facilities, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of facilities. Although the facilities necessary to perform a specified function may be installed at various locations along the path of the service, including the premises of the end user, they will be charged for as a single rate element. Examples of features or functions that are available include, but are not limited to, the following:

- Conditioning
- Transfer Arrangement
- Automatic Protection Switching

Rates for each of the available features and functions are set forth in Section 17.3.3 following.

# 7. <u>Special Access Service</u> (Cont'd)

#### 7.1 <u>General</u> (Cont'd)

## 7.1.4 Service Configurations

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

## (A) <u>Two-Point Service</u>

A two-point service is a channel which is provided to connect two locations. The locations connected may be:

- An IC terminal location and an end user premises, whether provided direct or through a Telephone Company designated facility hub
- An IC terminal location and a hub
- Two IC terminal locations
- Two end user premises

All Special Access Services may be provided as two-point service.

## (B) <u>Multipoint Service</u>

A multipoint service is a channel that is provided to connect three or more locations. The locations connected may be:

- an IC terminal location and two or more end user premises
- all IC terminal locations
- all end users premises
- multiple IC terminal locations and multiple end user premises.

Only certain types of Special Access Service are provided as multipoint services. These are so designated in the Technical Service Descriptions set forth in Section 7.2.1 and Section 7.2.2 following. Multipoint Service is available with a maximum of three mid-links in tandem. The specific number of bridges required for such services will be determined by the Telephone Company.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.1 <u>General</u> (Cont'd)

## 7.1.4 <u>Service Configurations</u> (Cont'd)

# (B) <u>Multipoint Service</u> (Cont'd)

Multipoint service is provided in the following manner:

- The Telephone Company will designate serving wire centers where bridging (by service type) is available. These serving wire centers are referred to as Hubs.
- The IC will specify the bridging serving wire center (i.e., Hub), selected from the Telephone Company list of available locations.
- Service will be priced as provided.
- Access Connection from the designated IC terminal location to IC serving wire center. (Additional IC terminal locations will be treated as end user premises.)
- Channel Mileage from the IC serving wire center to the bridging serving wire center (may also be end user serving wire center.)
- Appropriate Facility Interface Combination (per end user premises bridged) and bridging equipment charge. The facility interfaces at the end user premises do not have to be the same at each end user premises on a multipoint service, but all must work in combination with a common IC terminal location facility interface. The rates to be applied at the IC terminal location are those for the facility interface combination with the highest rates at the initial installation of service.
- Channel Mileage from the bridging serving wire center to the end user serving wire center, if required.
- Special Access Line from the end user wire center to end user premises (per end user location).
- Special Access Surcharge (per end user premises).

## 7. <u>Special Access Service</u> (Cont'd)

## 7.1 <u>General</u> (Cont'd)

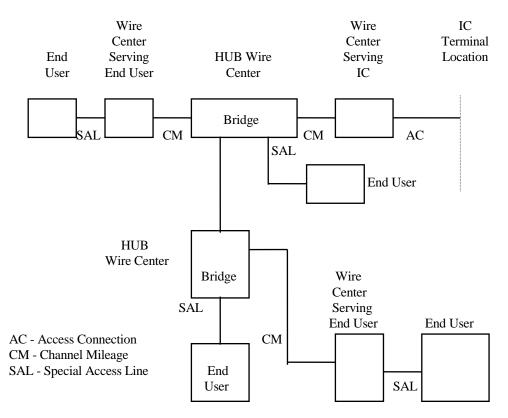
## 7.1.4 Service Configurations (Cont'd)

## (B) <u>Multipoint Service</u> (Cont'd)

Features and Functions

- Voice Grade Performance
- Conditioning

## MULTIPOINT SERVICE CONFIGURATION



As each additional leg is added to an existing multipoint service, additional Channel Mileage, an end user facility interface, a Special Access Line and a Special Access Service Surcharge will be charged to the IC as required. If another bridge is connected, additional Channel Mileage, end user facility interface(s), Special Access Line(s) and Special Access Service Surcharge will be charged to the IC as required.

## 7. <u>Special Access Service</u> (Cont'd)

#### 7.1 <u>General</u> (Cont'd)

## 7.1.5 <u>Alternate Use</u>

Alternate Use occurs when an IC uses a service for different types of transmission at different times. The IC may transfer from one type of operation to another at will, but only one type of transmission can be used at a time.

The Telephone Company will review each request for alternate use on an individual case basis. If it agrees to allow the alternate use, the arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12., Specialized Service or Arrangements. The IC will pay the stated tariff rates for the Access Service rate elements ordered (i.e., Access Connection, Channel Mileage, Facility Interface Combination and Special Access Line).

#### 7.1.6 **Special Facilities Routing**

An IC 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 following.

#### 7.1.7 Design Layout Report

The Telephone Company will provide to the IC the make-up of the facilities and services provided under this tariff as Special Access to aid the IC 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 IC at no charge.

## 7.1.8 <u>Acceptance Testing</u>

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

For Voice Grade (VG) Services 1, 2, 3, 6, 7, 8, 9, 10, 11 and 12: loss, 3-tone slope, DC continuity and operational signaling. When the Access Connection provides a four-wire voice transmission interface and the network interface provides two-wire voice transmission, (i.e., there is a four-wire to two-wire conversion in Channel Mileage) balance (equal level echo path loss) may also be tested. Additionally, C-notched noise tests will be provided on VG 6, 7, 8, 9, 10, 11 and 12.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.1 <u>General</u> (Cont'd)

## 7.1.8 Acceptance Testing (Cont'd)

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

If acceptance tests are not started within 30 minutes after the scheduled appointed time for such tests, as negotiated between the Telephone Company and the IC, additional charges will apply, as set forth in Section 13 following.

## 7.1.9 Ordering Options and Conditions

There are two ordering options available to an IC in the provision of Special Access Service. These are:

- Access Order
- Planned Facilities Order

These options are set forth in detail in Section 5 preceding, as are the conditions under which the options may be elected. Cancellation charges associated with these options are also included in Section 5 preceding.

Ordering, rating and billing of <u>Special Access Services</u> where more than one Exchange Telephone Company is involved will apply as set forth in Section 2.4.7 preceding.

#### 7.1.10 Jurisdictional Report Requirements

When an IC orders Special Access Service, the IC is responsible for providing the jurisdiction of the service in accordance with Section 2.3.15 preceding.

# 7. <u>Special Access Service</u> (Cont'd)

#### 7.2 Technical Service Descriptions for Special Access Service

Special Access Service may be either analog or digital. Analog services are differentiated by spectrum and bandwidth. Digital services are differentiated by bit rate. There are five major categories of analog service and three digital services. These are:

Analog: Narrowband

Voice Grade Program Audio

Video Wideband

- Digital: Wideband

Digital Data High Capacity

Each of these are further broken down into a number of subcategories.

This section includes the technical service descriptions for each type of analog and digital service provided, typical applications for which each type of service can be used, the optional features or functions available with specific services, transmission performances and the available facility interface (FI) combinations with which service can be provided. The facility interface codes are described in Section 7.3 following.

The Telephone Company will maintain existing transmission performance on service configurations installed prior to January 1, 1984. All service configurations installed after January 1, 1984 will conform to the transmission performance standards contained in this tariff, except as follows. Where local facility conditions cannot support the transmission performance standards contained in this tariff, transmission standards that can be supported will be uniformly applied to all ICs.

## 7.2.1 Analog Services

#### (A) <u>Narrowband Services</u>

## (1) Narrowband 1 (NB1) Special Access Service

#### (a) <u>Description</u>

Special Access Service NB1 provides a channel for a balanced metallic pair between an IC terminal location and an end user premises. Service will be provided only where appropriate metallic facilities are available. Signal transfer rates up to 30 baud will be accommodated.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

## (A) <u>Narrowband Services</u> (Cont'd)

#### (1) Narrowband 1 (NB1) Special Access Service (Cont'd)

# (b) <u>Illustrative Applications</u>

Special Access Service NB1 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Protective Alarm (Direct Wire)
- Wire Pair Facility

## (c) Optional Features

Bridging: provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a second end user location.

Customer requiring a four-wire metallic facility must buy two NB1 services.

## (d) <u>Transmission Performance</u>

#### Leakage

Remedial action will be initiated when the DC resistance between the conductors in each customer pair or the resistance between individual serving pair conductors and ground is observed to be less than 30,000 ohms.

# (e) <u>Available Facility Interface Combinations</u>

IC End User

2DC8-3 2DC8-3

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (A) <u>Narrowband Services</u> (Cont'd)

#### (2) Narrowband 2 (NB2) Special Access Service

## (a) <u>Description</u>

Special Access Service NB2 provides a channel for simplex low-frequency, narrowband electrical transmission which may be provided to a number of end user premises (up to a maximum of 25) to form a series of electrical paths from the IC terminal location to each end user premises. The electrical path is capable of transporting the three-level signal used in the McCulloh signaling system at speeds up to 15 bps.

Service will be provided only where appropriate metallic or other facilities are available.

## (b) <u>Illustration</u> <u>Application</u>

Special Access Service NB2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Protective Alarm (McCulloh)

## (c) Optional Feature

- Series Bridging: up to 25 end user premises.

## (d) <u>Transmission Performance</u>

## - <u>Leakage</u>

Remedial action will be initiated when the DC resistance between the conductors in each serving pair and the resistance between individual serving pair conductors and ground is observed to be less than 30,000 ohms.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (A) <u>Narrowband Services</u> (Cont'd)

#### (2) <u>Narrowband 2 (NB2) Special Access Service</u> (Cont'd)

#### (e) Available Facility Interface Combinations

<u>IC</u>	End User	<u>IC</u>	End User
2DC8-2	2DC8-1	4AH5-B {2}	2DC8-1
2DC8-1	2DC8-2	4AH5-B {2}	2DC8-2
4DS9- {1}	2DC8-1	4AH6-C {2}	2DC8-2
4DS9- {1}	2DC8-2	4AH6-D {2}	2DC8-1
4AH6-D{2}	2DC8-2	4AH6-C {2}	2DC8-1

# (3) Narrowband 3 (NB3) Special Access Service

#### (a) <u>Description</u>

Special Access Service NB3 provides a channel for the transmission of direct current and/or low frequency control signals between an IC terminal location and an end user premises. Central office bridging for connection to a third point is available.

This service provides dc continuity which may be continuously monitored. Service is available only where appropriate metallic facilities exist.

# (b) <u>Illustration Application</u>

Special Access Service NB3 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Protective Relaying Telegraph Grade
- Protective Relaying Signal Grade
- {1} See Section 7.3.3 following for explanation.
- Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (A) <u>Narrowband Services</u> (Cont'd)
  - (3) Narrowband 3 (NB3) Special Access Service
    - (c) Optional Feature
      - Bridging: provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a second end user location.
    - (d) <u>Transmission Performance</u>
      - Loop Resistance

For protective relaying services, the end-to-end dc loop resistance will not exceed 2000 ohms for two-point channels. For three-point channels, the maximum dc loop resistance per leg is 500 ohms.

- Shunt Capacitance

For protective relaying services, the end-to-end shunt capacitance between the two conductors will not exceed 1.5 microfarads for a two-point channel. For three-point channels, the maximum total shunt capacitance is 1.8 microfarads.

(e) <u>Available Facility Interface Combinations</u>

IC End User

2DC8-3 2DC8-3

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (A) <u>Narrowband Services</u> (Cont'd)

#### (4) Narrowband 4 (NB4) Special Access Service

### (a) <u>Description</u>

Special Access Service NB4 provides a channel for transmission of asynchronous transitions between two current levels at rates up to 75 baud between an IC terminal location and an end user premises. This service is furnished for half-duplex or duplex operation on a two point or multipoint configuration. Neither direct current continuity of this service nor the capability to transport continuously varying alternating current is assured.

# (b) <u>Illustrative Applications</u>

Special Access Service NB4 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Telegraph Grade Facilities
- Entrance Facility Telegraph Grade
- Extension Service Telegraph Grade
- Teletypewriter Service
- Alarm Circuits
- Control/Remote Metering Telegraph Grade

#### (c) Optional Feature

- Central office bridging capability.

#### (d) <u>Transmission Performance</u>

- Telegraph Distortion Remedial action will be initiated whenever the telegraph distortion is observed to exceed 9%.

# 7. Special Access Service (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (A) <u>Narrowband Services</u> (Cont'd)
  - (4) <u>Narrowband 4 (NB4) Special Access Service</u> (Cont'd)
    - (e) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User	<u>IC</u>	End User
2TT2-2 2TT2-3 2DB2-10 2DB2-43 {1} 4DB2-10 2DB2-43 {1} 2TT2-3 2DB2-10 2DB2-43 {1} 4TT2-2 4DB2-10	2TT2-2 2TT2-2 2TT2-2 2TT2-2 2TT2-2 2TT2-2 2TT2-2 4TT2-2 4TT2-2 4TT2-2 4TT2-2	4DS9- {2} 2DS9- {2} 4DS9- {2} 4DS9- {2} 4AH5-B{3} 4AH5-B{3} 4AH5-B{3} 4AH6-C{3} 4AH6-C{3} 4AH6-C{3}	2TT2-2 4TT2-2 2TT2-6 4TT2-6 2TT2-2 4TT2-2 2TT2-6 4TT2-6 2TT2-2 4TT2-2 2TT2-6
4DB2-43 {1} 2TT2-6 2DB2-43 {1} 2DB2-10 4DB2-43 {1} 2DB2-43 4TT2-6 4DB2-43 {1}	4TT2-2 4TT2-2 4TT2-2 4TT2-2 2TT2-6 2TT2-6 2TT2-6 2TT2-6	4AH6-C{3} 4AH6-D{3} 4AH6-D{3} 4AH6-D{3} 4AH6-D{3}	4TT2-6 2TT2-2 4TT2-2 2TTA-6 4TT2-6

<sup>{1}</sup> Supplemental Channel Assignment information required.

<sup>{2}</sup> See Section 7.3.3 following for explanation.

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option of the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (A) <u>Narrowband Services</u> (Cont'd)

#### (5) Narrowband 5 (NB5) Special Access Service

### (a) <u>Description</u>

Special Access Service NB5 provides a channel for transmission of asynchronous transitions between two current levels at rates up to 150 baud between an IC terminal location and an end user premises. This service is furnished for half-duplex or duplex operation on a two-point or multipoint configuration. Neither direct current continuity of this service nor the capability to transport continuously varying alternating currents is assured.

# (b) <u>Illustrative Applications</u>

Special Access Service NB5 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Extension Service Telegraph Grade
- Teletypewriter Service
- Alarm Circuits
- Control/Remote Metering Telegraph Grade

# (c) Optional Feature

- Central office bridging capability.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (A) <u>Narrowband Services</u> (Cont'd)
  - (5) <u>Narrowband 5 (NB5) Special Access Service</u> (Cont'd)
    - (d) Transmission Performance
      - Telegraph Distortion

Remedial action will be initiated whenever the telegraph distortion is observed to exceed 12%.

#### (e) Available Facility Interface Combinations

<u>IC</u>	End User	<u>IC</u>	End User
2DB2-10	10IA2	4DS9- {2}	10IA2
4DB2-10	10IA2	4AH5-B{3}	10IA2
2DB2-43 {1}	10IA2	4AH6-C{3}	10IA2
4DB2-43 {1}	10IA2	4AH6-D{3}	10IA2

# (B) <u>Voice Grade Services</u>

There are 13 types of Voice Grade Service, each having a different transmission performance. The transmission performances determine the applications that the various types of Voice Grade Service can be used for. VG1 through VG4 services are intended for voice application only. VG5 through VG10 are suitable for voiceband data for voice/data applications. VG11 is suitable for telephoto service and VG12 is suitable for protective relaying service. VG13 is suitable for physically intraLATA, jurisdictionally intrastate services.

- {1} Supplemental Channel assignment information required.
- {2} See Section 7.3.3 following for explanation.
- Available only to ICs selecting the 4-wire multiplexed High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (1) <u>Voice Grade 1 (VG1) Special Access Service</u>

### (a) <u>Description</u>

Special Access Service VG1 provides a channel for voice frequency transmission capacity. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface can be either two-wire or four-wire at both the IC terminal location and the end user premises. Various interface options are available. This service will support effective two-wire or effective four-wire transmission.

# (b) <u>Illustrative Applications</u>

Special Access Service VG1 is suitable for use as part of the facilities used to provide intrastate telecommunications services such as:

- Voice Grade Facility
- Alarm Circuits

#### (c) Optional Feature

Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (1) <u>Voice Grade 1 (VG1) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

<u>Channel Mileage (mi)</u>	<u>Limit (dBrnCO) {1}</u>	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

# - Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, and expressed as Echo return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

	Echo Return Loss	Singing Return Loss
Standard Return Loss Interface (Return Loss)	5 dB	2.5 dB
Four-Wire Interface (Equal Level Echo Path Loss)	16 dB	11 dB

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (1) <u>Voice Grade 1 (VG1) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Echo Control</u> (Cont'd)

# Effective Four-Wire Transmission

(Two-wire interface at the end user premises.)

	Echo <u>Return Loss</u>	Singing Return Loss
Two-Wire Interface (Return Loss)	24 dB	18 dB
Four-Wire Interface (Equal Level Echo Path Loss) (For Centrex application 2 dB pad is "in").	20 dB	14 dB

# - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RL	
ERL 5 dB	ERL 20 dB	
SRL 2.5 dB	SRL 13.5 dB	

# - <u>Loss Variation</u>

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  4.0 dB.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

# (1) <u>Voice Grade 1 (VG1) Special Access Service</u> (Cont'd)

#### (d) Transmission Performance (Cont'd)

# - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -2.0 dB and +10.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 504 Hz and 2504 Hz shall be within -2.0 dB and +8.0 dB and between 304 Hz and 3004 Hz shall be within -3.0 dB and +12.0 dB.

#### (e) <u>Available Facility Interface Combinations</u>

VG1 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(30).

# (2) <u>Voice Grade 2 (VG2) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG2 provides a channel for voice frequency transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface at the end user premises is two-wire or four-wire and the IC terminal location interface is four-wire. This service will support effective two-wire or effective four-wire transmission.

#### (b) <u>Illustrative Applications</u>

Special Access Service VG2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (2) <u>Voice Grade 2 (VG2) Special Access Service</u> (Cont'd)
    - (b) <u>Illustrative Applications</u> (Cont'd)
      - Centrex C.O. Line
      - Concentrator Identifier Trunk
      - Extension Service
      - Off-Premises Intercommunications Line
      - Private Line Voice Circuit
      - Paging Circuit
      - Foreign Exchange Line (closed end)
      - Centrex Station Line Off Premises
      - Off-Premises Extension
      - Off-Premises PBX Station Line

# (c) Optional Features

- Central office bridging capability.
- Improved return loss for effective two-wire transmission at the end user premises.
- IC specified end user premises receive level within a range acceptable to the Telephone Company on effective fourwire transmission.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (2) <u>Voice Grade 2 (VG2) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Limit (dBrnCO) {1}	
Type V1	Type V2
32	38
33	39
35	41
37	43
39	45
	32 33 35 37

- <u>Echo Control</u>

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

#### Effective Two-Wire Transmission

(Four-wire interface at the IC terminal location and two-wire interface at the user premises).

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (2) <u>Voice Grade 2 (VG2) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u>
      - <u>Echo Control</u> (Cont'd)

	Echo	Singing
	Return Loss	Return Loss
Standard Return Loss	5 dB	2.5 dB
(at Two-Wire Interface)		
Improved Return Loss	13 dB	8 dB
(at Two-wire Interface)		
Four-Wire Interface	16 dB	11 dB
(Equal Level Echo		
Path Loss)		
(For Centrex Application,		
2 dB pad is "in")		

# Effective Four-Wire Transmission

(Two-wire interface at the end user premises.)

	Echo <u>Return Loss</u>	Singing Return Loss
Two-wire Interface (Return Loss)	24 dB	18 dB
Four-wire Interface (Equal Level Echo Path Loss)	20 dB	14 dB

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (2) <u>Voice Grade 2 (VG2) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Improved Return Loss</u> (Cont'd)

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RL
ERL 5 dB	ERL 20 dB
SRL 2.5 dB	SRL 13.5 dB

# - <u>Loss Variation</u>

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

#### - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +4.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +5.0 dB.

#### (e) <u>Available Facility Interface Combinations</u>

VG2 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(30).

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (3) <u>Voice Grade 3 (VG3) Special Access Service</u>

#### (a) Description

Special Access Service VG3 provides a channel for voice frequency transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface at the end user premises is two-wire or four-wire and the IC terminal location interface is four-wire. This service will support effective two-wire or four-wire transmission.

#### (b) Illustrative Applications

Special Access Service VG3 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Foreign Exchange Trunk (Closed End)
- Alternate Use Service
- PBX/CTX Tie Trunks
- SSN Access Line
- SSN Station Line
- SSN Network Line
- SSN Tie Trunk
- Station and Premises Connecting Facilities

# (c) Optional Features

- Improved returned loss for effective two-wire transmission at the end user premises.
- IC specified end user premises receive level within a range acceptable to the Telephone Company on effective fourwire transmission.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (3) <u>Voice Grade 3 (VG3) Special Access Service</u> (Cont'd)
    - (d) Transmission Performance
      - <u>C-Message Noise</u>

The C-Message noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBrnCO)</u> {1}	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

# Effective Two-Wire Transmission

(Four-wire interface at the IC terminal location, two-wire interface at the end user premises).

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (3) <u>Voice Grade 3 (VG3) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Echo Control</u> (Cont'd)

# Effective Two-Wire Transmission (Cont'd)

	Echo Return Loss	Singing Return Loss
Standard Return Loss (at Two-Wire Interface)	5 dB	2.5 dB
Improved Return Loss (at Two-Wire	13 dB	8 dB
Interface) Four-Wire Interface	16 dB	11 dB
(Equal Level Echo Path Loss)		
(For Centrex application, 2 dB pad is "in".)		

# Effective Four-Wire Transmission

(Two-wire interface at the end user premises).

	Echo	Singing
	Return Loss	Return Loss
Two-Wire Interface	24 dB	18 dB
(Return Loss)		
Four-Wire Interface	20 dB	14 dB
(Equal Level Echo		
Path Loss)		

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (3) <u>Voice Grade 3 (VG3) Special Access Service</u> (Cont'd)
    - (d) Transmission Performance (Cont'd)

# - Improved Return Loss

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RL	
ERL 5 dB	ERL 20 dB	
SRL 2.5 dB	SRL 13.5 dB	

#### - <u>Loss Variation</u>

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

# - <u>Attenuation Distortion</u>

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +3.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +5.0 dB.

#### (e) <u>Available Facility Interface Combinations</u>

VG3 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(30).

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

#### (4) <u>Voice Grade 4 (VG4) Special Access Service</u>

This service is available for use only by the Federal Government.

#### (a) <u>Description</u>

Special Access Service VG4 provides a channel for voice frequency transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface will be four-wire at both the IC terminal location and the end users premises. This service will support effective four-wire transmission.

# (b) <u>Illustrative Applications</u>

Special Access Service VG4 is suitable for use as part of the facilities required to provide intrastate telecommunications services to the Federal Aviation Agency (FAA) for voice plus control tone transmission under FAA Specifications S-1142a.

# (c) Optional Features

- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (4) <u>Voice Grade 4 (VG4) Special Access Service (Cont'd)</u>
    - (d) <u>Transmission Performance</u>
    - C-Message Noise

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBrnCO) {1}</u>	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

#### - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RL	
ERL 5 dB	ERL 20 dB	
SRL 2.5 dB	SRL 13.5 dB	

#### - Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.0 dB.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (4) <u>Voice Grade 4 (VG4) Special Access Service (Cont'd)</u>
    - (d) <u>Transmission Performance</u> (Cont'd)
      - Attenuation Distortion

The attenuation distortion shall be within the following limits:

- -1 to +3.5 dB between 304 and 504 Hz
- -1 to +2.0 dB between 504 and 2504 Hz
- -1 to +3.0 dB between 2504 and 2804 Hz
- -1 to +4.0 dB between 2804 and 3004 Hz

#### - <u>Signal-to-C Message Noise</u>

The Signal-to-C Message Noise ratio should not be less than 41 dB, measured with -8 dBmO test tone. The Signal-to-C Message Noise ratio shall not be less than 21dB for signals over 2600-3000 Hz, measured with a -15 dBmO test tone.

### (e) <u>Available Facility Interface Combinations</u>

VG4 is available only with specific facility interface combinations set forth in Section 7.2.1(B)(14).

# (5) <u>Voice Grade 5 (VG5) Special Access Service</u>

# (a) <u>Description</u>

Special Access Service VG5 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface can be either two-wire or four-wire at the end user premises and the IC terminal location. This service will support effective two-wire for four-wire transmission.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

# (5) <u>Voice Grade 5 (VG5) Special Access Service</u> (Cont'd)

### (b) <u>Illustrative Applications</u>

Special Access Service VG5 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Protective Alarm
- DATAPHONE Select-A-Station

# (c) Optional Features

- C-Conditioning.
- Central office bridging capability.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# (d) <u>Transmission Performance</u>

# - C-Message Noise

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBrnCO) {1}</u>	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

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- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 <u>Analog Services</u> (Cont'd)
      - (B) <u>Voice Grade Services</u> (Cont'd)
        - (5) <u>Voice Grade 5 (VG5) Special Access Service</u> (Cont'd)
          - (d) <u>Transmission Performance</u> (Cont'd)
            - Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

# Effective Two-Wire Transmission

(Four-wire interface at the IC terminal location and two-wire interface at the end user premises).

	Echo	Singing
	Return Loss	Return Loss
Standard Return Loss (at Two-Wire Interface)	5 dB	2.5 dB
Four-Wire Interface (Equal Level Echo	16 dB	11 dB
Path Loss)		
(For Centrex application,		
2 dB pad is "in".)		

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (5) <u>Voice Grade 5 (VG5) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Echo Control</u> (Cont'd)

#### **Effective Four-Wire Transmission**

(Two-wire interface at the end user premises).

	Echo	Singing
	Return Loss	Return Loss
Two-Wire Interface	24 dB	18 dB
(Return Loss)		
Four-Wire Interface	20 dB	14 dB
(Equal Level Echo		
Path Loss)		

# - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RL	
ERL 5 dB	ERL 20 dB	
SRL 2.5 dB	SRL 13.5 dB	

#### - Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

#### - <u>Attenuation Distortion</u>

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +5.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss).

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (5) <u>Voice Grade 5 (VG5) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 26 dB

- <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

### (e) Available Facility Interface Combinations

VG5 is available only with specific facility interface combinations set forth in Section 7.2.1(B)(30).

# (6) <u>Voice Grade 6 (VG6) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG6 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface is four-wire at both the IC terminal location and the end user premises. This service will support effective four-wire transmission.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

#### (6) <u>Voice Grade 6 (VG6) Special Access Service</u> (Cont'd)

### (b) <u>Illustrative Applications</u>

Special Access Service VG6 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Private Line Data Circuit
- Control/Remote Metering

# (c) Optional Features

- C-Conditioning
- DA-Conditioning.
- Central office bridging capability.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.
- Central office multiplexing.

# (d) <u>Transmission Performance</u>

# C-Message Noise

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBrnCO)</u> {1}	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

# 7. <u>Special Access Service</u> (Cont'd)

#### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (6) <u>Voice Grade 6 (VG6) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

Standard RL	Improved RI	
ERL 5 dB	ERL 20 dB	
SRL 2.5 dB	SRL 13.5 dB	

#### Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

#### - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +4.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 504 Hz and 2504 Hz shall be within -1.0 dB and +3.0 dB with reference to the loss at 1004 Hz. The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +5.0 dB.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (6) <u>Voice Grade 6 (VG6) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 30 dB

- Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 700 microseconds between 800 and 2600 Hz.

- <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

- <u>Intermodulation Distortion</u>

The intermodulation distortion based upon the four-tone method shall be such that R2 is not less than 33 dB and R3 not less than 40 dB.

- <u>Phase Jitter</u>

The phase jitter over 20-300 Hz shall not exceed 5 degree peak-to-peak and over 4-300 Hz shall not exceed 10 degrees peak-to-peak.

Frequency Shift

The frequency shift shall not exceed  $\pm 1$  Hz.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (6) <u>Voice Grade 6 (VG6) Special Access Service</u> (Cont'd)
    - (e) <u>Available Facility Interface Combinations</u>

VG6 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

# (7) <u>Voice Grade 7 (VG7) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG7 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interface at the end user premises is two-wire or four-wire and the IC terminal location interface is four-wire.

This service will support effective two-wire or four-wire transmission.

#### (b) <u>Illustrative Applications</u>

Special Access Service VG7 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Centrex CO Station Line Off-Premises Station
- PBX Off-Premises Station
- Foreign Exchange Trunk (Closed End)
- Foreign Exchange Line (Closed End)
- PBX Tie Trunks
- SSN Tie Trunks
- Voice Grade Data Connecting Facility

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (7) <u>Voice Grade 7 (VG7) Special Access Service</u> (Cont'd)
    - (c) Optional Features
      - Improved return loss for effective two-wire transmission at the end user premises.
      - C-Conditioning
      - DA-Conditioning
      - IC specified end user premises receive level within a range acceptable to the Telephone Company on effective fourwire transmission.
      - Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# (d) Transmission Performance

- <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	Limit (dBr	Limit (dBrnCO) {1}	
	Type V1	Type V2	
0 - 50	32	38	
51 - 100	33	39	
101 - 200	35	41	
201 - 400	37	43	
401 - 1000	39	45	

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (7) <u>Voice Grade 7 (VG7) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

# - Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

# Effective Two-Wire Transmission

(Four-wire interface at the IC terminal location and two-wire interface at the end user premises).

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB
13 dB	8 dB
16 dB	11 dB
	Return Loss 5 dB 13 dB 16 dB

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (7) <u>Voice Grade 7 (VG7) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

# Effective Four-Wire Transmission

(Two-wire interface at the end user premises).

	Echo	Singing
	Return Loss	Return Loss
T	24 15	10.10
Two-Wire Interface	24 dB	18 dB
(Return Loss)		
Four-Wire Interface	20 dB	14 dB
(Equal Level Echo		
Path Loss)		

#### - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

# Standard RL Improved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

# Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (7) <u>Voice Grade 7 (VG7) Special Access Service</u> (Cont'd)

#### (d) <u>Transmission Performance</u> (Cont'd)

# - <u>Attenuation Distortion</u>

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +2.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +5.0 dB.

# - Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 30 dB

#### - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 700 microseconds between 800 and 2600 Hz.

#### - <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

# - <u>Intermodulation Distortion</u>

The intermodulation distortion based upon the four tone method shall be such that R2 is not less than 33 dB and R3 not less than 40 dB.

# - Phase Jitter

The phase jitter over 20-300 Hz shall not exceed 5 degrees peak-to-peak and over 4-300 Hz shall not exceed 10 degrees peak-to-peak.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (7) <u>Voice Grade 7 (VG7) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - Frequency Shift

The frequency shift shall not exceed + 1 Hz.

# (e) <u>Available Facility Interface Combinations</u>

VG7 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

#### (8) <u>Voice Grade 8 (VG8) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG8 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The standard transmission interface at the end user premises is two-wire or four-wire and the IC terminal location interface is four-wire. This service will support effective four-wire transmission.

# (b) <u>Illustrative Applications</u>

Special Access Service VG8 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- SSN Access Line
- SSN Station Line

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (8) <u>Voice Grade 8 (VG8) Special Access Service</u> (Cont'd)
    - (c) Optional Features
      - C-Conditioning.
      - IC specified end user premises receive level within a range acceptable to the Telephone Company for effective fourwire transmission.
      - Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# (d) <u>Transmission Performance</u>

- <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	Limit (dBrnCO) {1}	
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (8) <u>Voice Grade 8 (VG8) Special Access Service</u> (Cont'd)

#### (d) <u>Transmission Performance</u>

# - Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, and expressed as Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

# - Effective Four-Wire Transmission

(Two-wire interface at the end user premises).

	Echo <u>Return Loss</u>	Singing Return Loss
Two-Wire Interface (Return Loss)	24 dB	18 dB
Four-Wire Interface (Equal Level Echo Path Loss)	20 dB	14 dB

ISSUED: July 13, 2006 EFFECTIVE: July 17, 2006

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (8) <u>Voice Grade 8 (VG8) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

## - Improved Return Loss

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

## Standard RL Improved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

#### - Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

#### - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +2.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +5.0 dB.

### - <u>Signal-to-C Notch Noise</u>

The Signal-to-C Notch noise ratio shall not be less than 32 dB.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (8) <u>Voice Grade 8 (VG8) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 700 microseconds between 800 and 2600 Hz.

- <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

- <u>Intermodulation Distortion</u>

The intermodulation distortion based upon the four tone method shall be such that R2 is not less than 45 dB and R3 not less than 48 dB.

- Phase Jitter

The phase jitter over 20-300 Hz shall not exceed 4 degrees peak-to-peak and over 4-300 Hz shall not exceed 9 degrees peak-to-peak.

Frequency Shift

The frequency shift shall not exceed  $\pm$  1 Hz.

(e) <u>Available Facility Interface Combinations</u>

VG8 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (9) Voice Grade 9 (VG9) Special Access Service

#### (a) <u>Description</u>

Special Access Service VG9 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and another IC terminal location or a Telephone Company Central office which serves as an SSN Switch. The transmission interface at the end user premises or Telephone Company Central Office is four-wire and the IC terminal location interface is four-wire. This service will support effective four-wire transmission.

#### (b) <u>Illustrative Application</u>

Special Access Service VG9 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as SSN Network Trunks.

# (c) Optional Features

- C-Conditioning.
- IC specified end user premises receive level within a range acceptable to the Telephone Company for effective fourwire transmission.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

# 7. <u>Special Access Service</u> (Cont'd)

#### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (9) <u>Voice Grade 9 (VG9) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	Limit (dBr	nCO) {1}
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

## - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

## Standard RL Improved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

Where facility network conditions will support the parameters, Type V1 will be provided. Where the Type V1 parameters cannot be supported, Type V2 will be provided.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (9) <u>Voice Grade 9 (VG9) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

## - <u>Loss Variation</u>

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  1.5 dB.

#### - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -1.0 dB and +2.0 dB with reference to the loss at 1004 Hz and between 304 Hz and 3004 Hz shall be within -3.0 dB and +12.0 dB. (minus equals less loss, plus equals more loss).

#### Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 34 dB.

#### - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 700 microseconds between 800 and 2600 Hz.

## - <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (9) <u>Voice Grade 9 (VG9) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
      - <u>Intermodulation Distortion</u>

The intermodulation distortion based upon the four tone method shall be such that R2 is not less than 50 dB and R3 not less than 54 dB.

Phase Jitter

The phase jitter over 20-300 Hz shall not exceed 3 degrees peak-to-peak and over 4-300 Hz shall not exceed 8 degrees peak-to-peak.

Frequency Shift

The frequency shift shall not exceed  $\pm 1$  Hz.

#### (e) Available Facility Interface Combinations

VG9 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

# (10) <u>Voice Grade 10 (VG10) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG10 provides a channel for voiceband data transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The standard transmission interface at the end user premises and the IC terminal location is four-wire. This service will support effective four-wire transmission.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (10) <u>Voice Grade 10 (VG10) Special Access Service</u> (Cont'd)
    - (b) <u>Illustrative Applications</u>

Special Access Service VG10 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Data Off-Net Extension
- Voice Grade Data Facility

# (c) Optional Features

- Central office bridging capability.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.
- C-Conditioning
- DA-Conditioning

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (10) <u>Voice Grade 10 (VG10) Special Access Service</u>
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBri</u>	nCO) {1}
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

#### - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

## Standard RL Improved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

# Loss Variation

The long term loss variation from the nominal 1004 Hz EML shall not exceed  $\pm$  4 dB.

Where facility network conditions will support the parameters, Type V1 will be provided. Where the Type V1 parameters cannot be supported, Type V2 will be provided.

## 7. <u>Special Access Service</u> (Cont'd)

#### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (10) <u>Voice Grade 10 (VG10) Special Access Service</u> (Cont'd)

#### (d) Transmission Performance

#### - Attenuation Distortion

The attenuation distortion between 404 Hz and 2804 Hz shall be within -2.0 dB and +10.0 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 504 Hz and 2504 Hz shall be within -2.0 dB and +8.0 dB with reference to the loss at 1004 Hz. The attenuation distortion between 304 Hz and 3004 Hz shall be within -3.0 dB and +12.0 dB.

#### - Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 24 dB.

# - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 1750 microseconds between 800 and 2600 Hz.

## - <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 71 dBrnCO in 15 minutes shall be less than 15.

### - <u>Intermodulation Distortion</u>

The intermodulation distortion based upon the four-tone method shall be such that R2 is not less than 27 dB and R3 not less than 32 dB.

## 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (10) <u>Voice Grade 10 (VG10) Special Access Service</u> (Cont'd)

### (d) <u>Transmission Performance</u> (Cont'd)

## - Phase Jitter

The phase jitter over 20-300 Hz shall not exceed 10 degrees peak-to-peak and over 4-300 Hz shall not exceed 15 degrees peak-to-peak.

## - Frequency Shift

The frequency shift shall not exceed  $\pm$  3 Hz.

### (e) Available Facility Interface Combinations

VG10 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

# (11) <u>Voice Grade 11 (VG11) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG11 provides a channel for telephoto/facsimile transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. The transmission interfaces at the end user premises can be either two-wire or four-wire and at the IC terminal location the interface is four-wire. This service will support either effective two-wire or four-wire transmission.

#### (b) <u>Illustrative Applications</u>

Special Access Service VG11 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as telephoto/facsimile.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (11) <u>Voice Grade 11 (VG11) Special Access Service</u> (Cont'd)
    - (c) Optional Features
      - Central office bridging capability.
      - Telephoto conditioning.
      - Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBrnCO)</u> {1}							
	Type V1	Type V2						
0 - 50	32	38						
51 - 100	33	39						
101 - 200	35	41						
201 - 400	37	43						
401 - 1000	39	45						

- Echo Control

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

Where facility network conditions will support the parameters, Type V1 will be provided. Where the Type V1 parameters cannot be supported, Type V2 will be provided.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (11) <u>Voice Grade 11 (VG11) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

## Effective Two-Wire Transmission

(Four-wire interface at the IC terminal locations and two-wire interface at the end user premises).

	Echo <u>Return Loss</u>	Singing Return Loss
Two-Wire Interface	5 dB	2.5 dB
(Return Loss) Four-Wire Interface (Equal Level Echo	16 dB	11 dB
Path Loss)		

# Effective Four-Wire Transmission

(Two-wire interface at the end user premises).

	Echo <u>Return Loss</u>	Singing Return Loss
Two-Wire Interface (Return Loss)	24 dB	18 dB
Four-Wire Interface (Equal Level Echo	20 dB	14 dB
Path Loss)		

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (11) <u>Voice Grade 11 (VG11) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

## - Improved Return Loss

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

### Standard RLImproved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

## <u>Loss Variation</u>

The long term loss variation from the nominal 2204 Hz EML shall not exceed  $\pm 1.5$  dB.

#### - Attenuation Distortion

The attenuation distortion between 1204 Hz and 2604 Hz shall be within -1.0 dB and +1.0 dB with reference to the loss at 2204 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and  $\pm$ 5.0 dB.

# - Signal-to-C Notch Noise

The Signal-to-C Notch noise ratio shall not be less than 30 dB.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (11) <u>Voice Grade 11 (VG11) Special Access Service</u> (Cont'd)

#### (d) <u>Transmission Performance</u> (Cont'd)

## - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 700 microseconds between 1200 and 2600 Hz.

## - <u>Impulse Noise</u>

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

### - Intermodulation Distortion

The intermodulation distortion based upon the four-tone method shall be such that R2 is not less than 33 dB and R3 not less than 40 dB.

#### - Phase Jitter

The phase jitter over 20-300 Hz shall not exceed 5 degrees peak-to-peak and over 4-300 Hz shall not exceed 10 degrees peak-to-peak.

## Frequency Shift

The frequency shift shall not exceed  $\pm 1$  Hz.

## (e) <u>Available Facility Interface Combinations</u>

VG11 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

## (B) <u>Voice Grade Services</u> (Cont'd)

#### (12) <u>Voice Grade 12 (VG12) Special Access Service</u>

### (a) <u>Description</u>

Special Access Service VG12 provides a channel for voice frequency transmission capability. Usable frequencies are nominally 300 to 3000 Hz between an IC terminal location and an end user premises. Such services are used by electric power utilities for the transmission of control signals (voice frequency tones) which are critical to the operation and protection of power systems during fault intervals. The service may be one-way, effective two-wire or two-way, effective four-wire and may be ordered in two-point or multipoint configurations. The transmission interface at the IC terminal location and the end user premises can be either two-wire or four-wire.

## (b) <u>Illustrative Applications</u>

Special Access Service VG12 is suitable for use as part of the facilities required to provide intrastate voice grade private line audio tone protective relaying service.

## (c) Optional Features

- Central office bridging capability.
- Improved return loss at four-wire point of interface, applicable to each two-wire leg of effective four-wire channel.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (12) <u>Voice Grade 12 (VG12) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u>
      - <u>C-Message Noise</u>

The C-Message Noise shall be less than:

Channel Mileage (mi)	<u>Limit (dBri</u>	nCO) {1}
	Type V1	Type V2
0 - 50	32	38
51 - 100	33	39
101 - 200	35	41
201 - 400	37	43
401 - 1000	39	45

- <u>Echo Control</u>

Echo Control, identified as Equal Level Echo Path Loss at four-wire interfaces or Return Loss at two-wire interfaces, for both Echo Return Loss and Singing Return Loss, at either the end user premises or IC terminal location shall be not less than the following limits:

#### Effective Two-Wire Transmission

(Two-wire interface at the end user premises).

	Echo	Singing
	Return Loss	Return Loss
	- 45	
Two-Wire Interface	5 dB	2.5 dB
(Return Loss)		
Four-Wire Interface	16 dB	11 dB
(Equal Level Echo		
Path Loss)		

Where facility network conditions will support the parameters, Type V1 will be provided. Where the Type V1 parameters cannot be supported, Type V2 will be provided.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (12) <u>Voice Grade 12 (VG12) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)

#### - <u>Improved Return Loss</u>

The Return Loss (RL), expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), on two-wire ports of a four-wire point of interface shall be equal to or greater than:

#### Standard RLImproved RL

ERL 5 dB ERL 20 dB SRL 2.5 dB SRL 13.5 dB

#### <u>Loss Variation</u>

The long term loss variation from the nominal EML shall not exceed  $\pm 1.5$  dB.

#### - Attenuation Distortion

The attenuation distortion between 304 Hz and 3004 Hz shall be within -1.0 dB and +2.5 dB with reference to the loss at 1004 Hz (minus equals less loss, plus equals more loss). The attenuation distortion between 504 Hz and 2804 Hz shall be within -0.5 dB and +1.0 dB with reference to the loss at 1004 Hz.

#### - <u>Signal-to-C Notch Noise</u>

The Signal-to-C Notch noise ratio shall not be less than 32 dB.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 <u>Analog Services</u> (Cont'd)
      - (B) <u>Voice Grade Services</u> (Cont'd)
        - (12) <u>Voice Grade 12 (VG12) Special Access Service</u> (Cont'd)
          - (d) <u>Transmission Performance</u> (Cont'd)
            - Envelope Delay Distortion

The Envelope Delay Distortion (EDD) shall not exceed 715 microseconds between 800 and 2600 Hz.

Impulse Noise

The number of impulse noise counts exceeding a threshold of 67 dBrnCO in 15 minutes shall be less than 15.

Frequency Shift

The frequency shift shall not exceed  $\pm 1$  Hz.

(e) <u>Available Facility Interface Combinations</u>

VG12 is available only with specific facility interface combinations as set forth in Section 7.2.1(B)(14).

## 7. <u>Special Access Service</u> (Cont'd)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 Analog Services (Cont'd)

#### (B) <u>Voice Grade Services</u> (Cont'd)

#### (13) <u>Voice Grade 13 (VG13) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service VG13 provides a channel for voiceband transmission capability. Usable frequencies are nominally 300 to 3000 Hz between end user premises. This channel will provide for physically intraLATA services that are jurisdictionally classified as intrastate.

## (b) <u>Illustrative Applications</u>

Special Access Service VG13 is suitable for the provision of intrastate telecommunications services such as:

- PBX/Centrex Tie Trunks
- Remote Attendant Lines
- Turret or ACD Trunks or Lines
- Off-Premises Stations
- Voice Grade Data Service

#### (c) Optional Features

- Central office bridging capability.

## (d) <u>Transmission Performance</u>

The transmission performance is the same as for similar private line services offered by the Telephone Company.

## (e) <u>Available Facility Interface Combinations</u>

VG13 is available only with specific facility interface combinations. These combinations are set forth in 7.2.1(B)(14) following.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

## (14) Available Facility Interface (FI) Combinations

The following table shows the available facility interface (FI) combinations and the Voice Grade Services with which they may be ordered.

FI Combin	ations													
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
4 A D 2	4.4.02		17											
4AB2	4AC2		X											
4AB3	4AC2		X											
4AB2	2AC2		X											
4AB3	2AC2		X											
2AB2	2AC2		X											
2AB3	2AC2		X											
4AB2	4SF2		X											
4AB3	4SF2		X											
4AUCD (1)	44.02		<b>3</b> 7											
4AH6-D {1}	4AC2		X											
4AH6-D {1}	2AC2		X											
4AH6-C {1}	4AC2		X											
4AH6-C {1}	2AC2		X											
4AH5-B {1}	4AC2		X											
4AH5-B {1}	2AC2		X											
4AH6-D {1}	6DA2					X	X				X			
4AH6-D {1}	4DA2						X				X			
4AH6-D {1}	2DA2						X						X	
4AH6-C {1}	6DA2						X				X			
4AH6-C {1}	4DA2						X				X		X	
4AH6-C {1}	2DA2					X	X						X	
4AH5-B {1}	6DA2						X				X			
4AH5-B {1}	4DA2						X				X		X	
4AH5-B {1}	2DA2					X	X						X	
4AH6-D {1}	4DE2					X								
4AH6-C {1}	4DE2					X								
4AH5-B {1}	4DE2					X								

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Combir	nations					Voice	Grade	Servic	e (VG)	1				
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
4AH6-D {1}	4DX3									X				
4AH6-C {1}	4DX3									X				
4AH5-B {1}	4DX3									X				
4AH5-D {1}	4DX2									X				
2AH6-C {1}	4DX2									X				
2AH5-B {1}	4DX2									X				
4444675 (4)	00110			**				**	**					
4AH6-D {1}	9DY2			X				X	X					
4AH6-D {1}	9DY3			X				X	X					
4AH6-D {1}	6DY2			X				X	X					
4AH6-D {1}	6DY3			X				X	X					
4AH6-D {1}	4DY2			X				X	X					
4AH6-D {1}	2DY2			X				X	X					
4AH6-C {1}	9DY2			X				X	X					
4AH6-C {1}	9DY3			X				X	X					
4AH6-C {1}	6DY2			X				X	X					
4AH6-C {1}	6DY3			X				X	X					
4AH6-C {1}	4DY2			X				X	X					
4AH6-C {1}	2DY2			X				X	X					
4AH5-B {1}	9DY2			X				X	X					
4AH5-B {1}	9DY3			X				X	X					
4AH5-B {1}	6DY2			X				X	X					
4AH5-B {1}	6DY3			X				X	X					
4AH5-B {1}	4DY2			X				X	X					
4AH5-B {1}	2DY2			X				X	X					

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Combin	nations					Voice	Grade	de Service (VG)								
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13		
4444675 (4)	07.42			**				**	**							
4AH6-D {1}	9EA2			X				X	X							
4AH6-D {1}	9EA3			X				X	X							
4AH6-D {1}	6EA2-E			X				X	X							
4AH6-D {1}	6EA2-M			X				X	X	X						
4AH6-D {1}	4EA2-E			X				X	X							
4AH6-D {1}	4EA2-M			X				X	X							
4AH6-C {1}	9EA2			X				X	X							
4AH6-C {1}	9EA3			X				X	X							
4AH6-C {1}	6EA2-E			X				X	X							
4AH6-C {1}	6EA2-M			X				X	X	X						
4AH6-C {1}	4EA2-E			X				X	X							
4AH6-C {1}	4EA2-M			X				X	X							
4AH5-B {1}	9EA2			X				X	X							
4AH5-B {1}	9EA3			X				X	X							
4AH5-B {1}	6EA2-E			X				X	X							
4AH5-B {1}	6EA2-M			X				X	X	X						
4AH5-B {1}	4EA2-E			X				X	X							
4AH5-B {1}	4EA2-M			X				X	X							
4AH6-D {1}	8EB2-E			X				X	X							
4AH6-D {1}	8EB2-M			X				X	X	X						
4AH6-D {1}	6EB2-E			X				X	X							
4AH6-D {1}	6EB2-M			X				X	X							
4AH6-C {1}	8EB2-E			X				X	X							
4AH6-C {1}	8EB2-M			X				X	X	X						
4AH6-C {1}	6EB2-E			X				X	X							
4AH6-C {1}	6EB2-M			X				X	X							
4AH5-B {1}	8EB2-E			X				X	X							
4AH5-B {1}	8EB2-M			X				X	X	X						
4AH5-B {1}	6EB2-E			X				X	X							
4AH5-B {1}	6EB2-M			X				X	X							
	JED2 111			41				21	11							

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Combir	nations		Voice Grade Service (VG)											
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4444675 (4)	2002	**												
4AH6-D {1}	2GO2	X												
4AH6-C {1}	2GO2	X												
4AH5-B {1}	2GO2	X												
4AH6-D {1}	6GS2			X				X						
4AH6-D {1}	4GS2			X				X						
4AH6-D {1}	2GS3			X				X						
4AH6-D {1}	2GS2	X		X				X						
4AH6-C {1}	6GS2	71		X				X						
4AH6-C {1}	4GS2			X				X						
4AH6-C {1}	2GS3			X				X						
4AH6-C {1}	2GS2	X		X				X						
4AH5-B {1}	6GS2	Λ		X				X						
4AH5-B {1}	4GS2			X				X						
4AH5-B {1}	2GS3			X				X						
4AH5-B {1}	2GS3 2GS2	X		X				X						
4A113-D (1)	2032	Λ		Λ				Λ						
4AH6-D {1}	2LA2		X					X						
4AH6-C {1}	2LA2		X					X						
4AH5-B {1}	2LA2		X					X						
. ,														
4AH6-D {1}	2LB2		X					X						
4AH6-C {1}	2LB2		X					X						
4AH5-B {1}	2LB2		X					X						
4AH6-D {1}	2LC2		X					X						
4AH6-C {1}	2LC2		X					X						
4AH5-B {1}	2LC2		X					X						

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

- (B) <u>Voice Grade Services</u> (Cont'd)
  - (14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Combin	nations					Voice	Grade	Service	e (VG)					
IC	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	7	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4AH6-D {1}	2LO3		X					X						
4AH6-D {1}	2LO2	X												
4AH6-C {1}	2LO3		X					X						
4AH6-C {1}	2LO2	X												
4AH5-B {1}	2LO3		X					X						
4AH5-B {1}	2LO2	X												
4AH6-D {1}	4LR2		X											
4AH6-D {1}	2LR2		X											
4AH6-C {1}	4LR2		X											
4AH6-C {1}	2LR2		X											
4AH5-B {1}	4LR2		X											
4AH5-B {1}	2LR2		X											
4AH6-D {1}	6LS2		X	X				X						
4AH6-D {1}	4LS2		X	X				X						
4AH6-D {1}	2LS2	X	X	X				X	X					
4AH6-D {1}	2LS3		X	X				X						
4AH6-C {1}	6LS2		X	X				X						
4AH6-C {1}	4LS2		$\mathbf{X}$	X				X						
4AH6-C {1}	2LS2	X	$\mathbf{X}$	X				X	X					
4AH6-C {1}	2LS3		X	X				X						
4AH5-B {1}	6LS2		X	X				X						
4AH5-B {1}	4LS2		X	X				X						
4AH5-B {1}	2LS2	X	X	X				X	X					
4AH5-B {1}	2LS3	X	X	X				X						

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

(B) <u>Voice Grade Services</u> (Cont'd)

FI Combin	nations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13
4AH6-D {1}	4NO2	X	X		X	X	X	X		X				
4AH6-D {1}	2NO2	X	X		21	X	21	X		21				
4AH6-C {1}	4NO2	X	X		X	X	X	X		X				
4AH6-C {1}	2NO2	X	X		21	X	21	X		71				
4AH5-B {1}	4NO2	X	X		X	X	X	X		X				
4AH5-B {1}	2NO2	X	X			X		X						
4446 D (1)	ADAMA TE			***				*7						
4AH6-D {1}	4RV2-T			X				X						
4AH6-D {1}	2RV2-T			X				X						
4AH6-C {1}	4RV2-T			X				X						
4AH6-C {1}	2RV2-T			X				X						
4AH5-B {1}	4RV2-T			X				X						
4AH5-B {1}	2RV2-T			X				X						
4AH6-D {1}	4SF2		X	X				X	X	X				
4AH6-C {1}	4SF2		X	X				X	X	X				
4AH5-B {1}	4SF2									X				
4AH6-D {1}	4SF3									X				
4AH6-C {1}	4SF3									X				
4AH5-B {1}	4SF3									X				
4AH6-D {1}	4TF2											X		
4AH6-D {1}	4TF2											X		
4AH6-C {1}	4TF2											X		
4AH6-C {1}	4TF2											X		
4AH5-B {1}	4TF2											X		
4AH5-B {1}	4TF2											X		
TAILS-D (1)	411.2											Λ		
6DA2 {1}	6DA2										X			X
6DA2 {1}	4DA2										X			X
4DA2 {1}	6DA2										X			X
4DA2 {1}	4DA2										X			X

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

(B) <u>Voice Grade Services</u> (Cont'd)

FI Combi	nations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
(DD2 (1)	CD 4.2						37				37			
4DB2 {1}	6DA2						X				X		37	
4DB2 {1}	4DA2						X				X		X	
4DB2 {1}	2DA2					X	X				X		X	
2DB3 {1}	2DA2												X	
2DB2 {1}	2DA2					X	X							
4DB2 {1}	4NO2						X							
(DD2 (1)	4DE2					***								
4DD3 {1}	4DE2					X								
2DD3 {1}	2DE2					X								
4DC0 (1)	4.4.62		17											
4DS9- {1}	4AC2		X											
4DS9- {1}	2AC2		X											
4DC0 (1)	6DA2						v				v		v	
4DS9- {1}	6DA2						X X				X		X	
4DS9- {1}	4DA2					37					X		X	
4DS9- {1}	2DA2					X	X				X			
4DC0 (1)	4DE2					v								
4DS9- {1}	4DE2					X								
4DS9- {1}	4DX3									X				
	4DX3 4DX2									X				
4DS9- {1}	4DA2									Λ				
4DS9- {1}	9DY3			X				X	X					
4DS9- {1}	9DY2			X				X	X					
4DS9- {1}	6DY3			X				X	X					
				X				X	X					
4DS9- {1}	6DY2													
4DS9- {1}	4DY2			X				X	X					
4DS9- {1}	2DY2			X				X	X					

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Combi	inations					Voice	Grade	Servic	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
(D) (1)	071.0			**				**	**					
4DS9- {1}	9EA2			X				X	X					
4DS9- {1}	9EA3			X				X	X					
4DS9- {1}	6EA2-E			X				X	X					
4DS9- {1}	6EA2-M			X				X	X	X				
4DS9- {1}	4EA2-E			X				X	X					
4DS9- {1}	4EA2-M			X				X	X					
4DS9- {1}	8EB2-E			X				X	X					
. ,				X				X	X	X				
4DS9- {1}	8EB2-M			X				X	X	Λ				
4DS9- {1}	6EB2-E													
4DS9- {1}	6EB2-M			X				X	X					
4DS9- {1}	2GO2	X												
(D) (1)	6002			37				37						
4DS9- {1}	6GS2			X				X						
4DS9- {1}	4GS2			X				X						
4DS9- {1}	2GS2	X		X				X						
4DS9- {1}	2GS3			X				X						
4DS9- {1}	2LA2		X					X						
4DS9- {1}	2LB2		X					X						
4D07 (1)	2LD2		21					71						
4DS9- {1}	2LC2		X					X						
4DS9- {1}	2LO2	X												
4DS9- {1}	2LO3		X					X						
4DS9- {1}	4LR2		X											
4DS9- {1}	2LR2		X											

<sup>{1}</sup> See 7.3.3 following for explanation.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Combin	nations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
4DS9- {1} 4DS9- {1} 4DS9- {1} 4DS9- {1}	6LS2 4LS2 2LS2 2LS3	X	X X X X	X X X X				X X X X	X					
4DS9- {1} 4DS9- {1}	4NO2 2NO2	X X	X X		X	X X	X	X X		X				X X
4DS9- {1} 4DS9- {1}	4RV2-T 2RV2-T			X X				X X						
4DS9- {1} 4DS9- {1}	4SF2 4SF3		X	X				X	X	X X				
4DS9- {1} 4DS9- {1}	4TF2 4TF2											X X		
4DX2 4DX3 4DX2 4DX3	4DX2 4DX2 4DX3 4DX3									X X X X				
6DX2 6DX2 6DX2 6DX2 6DX2 6DX2	9DY3 9DY2 6DY3 6DY2 4DY2 2DY2			X X X X X				X X X X X X	X X X X X					

{1} See 7.3.3 following for explanation.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Com	nbinations					Voice	Grade	Servic	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4DX2	9DY3			X				X	X					
4DX3	9DY3			X				X	X					
4DX2	9DY2			X				X	X					
4DX3	9DY2			X				X	X					
4DX2	6DY3			X				X	X					
4DX3	6DY3			X				X	X					
4DX2	6DY2			X				X	X					
4DX3	6DY2			X				X	X					
4DX2	4DY2			X				X	X					
4DX3	4DY2			X				X	X					
4DX2	2DY2			X				X	X					
4DX3	2DY2			X				X	X					
6DX2	9EA3			X				X	X					
6DX2	9EA2			X				X	X					
6DX2	6EA2-E			X				X	X					
6DX2	6EA2-M			X				X	X					
6DX2	4EA2-E			X				X	X					
6DX2	4EA2-M			X				X	X					
4DX2	9EA2			X				X	X					
4DX3	9EA2			X				X	X					
4DX2	9EA3			X				X	X					
4DX3	9EA3			X				X	X					
4DX2	6EA2-E			X				X	X					
4DX3	6EA2-E			X				X	X					
4DX2	6EA2-M			X				X	X	X				
4DX3	6EA2-M			X				X	X	X				
4DX2	4EA2-E			X				X	X					
4DX3	4EA2-E			X				X	X					
4DX2	4EA2-M			X				X	X					
4DX3	4EA2-M			X				X	X					
TDAS	4LA2-W			Λ				Λ	11					
6DX2	8EB2-E			X				X	X					
6DX2	8EB2-M			X				X	X					
6DX2	6EB2-E			X				X	X					
6DX2	6EB2-M			X				X	X					
	~—— — -· <b>-</b>													

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Com	binations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4DW2	oena e			v				<b>3</b> 7	37					
4DX2	8EB2-E			X				X	X	37				
4DX2	8EB2-M			X				X	X	X				
4DX3	8EB2-E			X				X	X					
4DX3	8EB2-M			X				X	X	X				
4DX2	6EB2-E			X				X	X					
4DX2	6EB2-M			X				X	X					
4DX3	6EB2-E			X				X	X					
4DX3	6EB2-M			X				X	X					
4DX2	2LA2		X					X						
4DX3	2LA2		X					X						
2DX3	2LA2		X					X						
(DY)	av na		**					**						
4DX2	2LB2		X					X						
4DX3	2LB2		X					X						
4DX3	2LB2		X					X						
4DX2	2LC2		X					X						
4DX3	2LC2		X					X						
2DX3	2LC2		X					X						
4DW2	21.02		37					37						
4DX2	2LO3		X					X						
4DX3	2LO3		X					X						
2DX3	2LO3		X					X						
4DX2	6LS2		X	X				X						
4DX3	6LS2		X	X				X						
4DX3	4LS2		X	$\mathbf{X}$				X						
4DX2	4LS2		X	X				X						
4DX3	2LS3		X	X				X						
4DX2	2LS3		X	X				X						
4DX3	2LS2		X	X				X	X					
4DX2	2LS2		X	X				X	X					
2DX3	2LS2		X	X				X						
2DX3	2LS2 2LS3		X	X				X						
20113	2203		41	21				2 <b>X</b>						

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Com	binations					Voice	Grade	Servic	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13
4DW2	ADMA T			37				37						
4DX3	4RV2-T			X				X						
4DX2	4RV2-T			X				X						
4DX3	2RV2-T			X				X						
4DX2	2RV2-T			X				X						
6DX2	4SF2			X				X	X					
4DX2	4SF2		X	X				X	X	X				
4DX3	4SF2		X	X				X	X	X				
4DX2	4SF3									X				
4DX3	4SF3									X				
9DY3	9DY3													X
9DY3	9DY2													X
9DY2	9DY2													X
9DY2	9DY3													X
9DY3	6DY3													X
9DY3	6DY2													X
9DY2	6DY2													X
9DY2	6DY3													X
9DY3	4DY2													X
9DY2	4DY2													X
6DY3	9DY3													X
6DY3	9DY2													X
6DY2	9DY3													X
6DY2	9DY2													X
6DY3	6DY3													X
6DY3	6DY2													X
6DY2	6DY3													X
6DY2	6DY2													X
6DY3	4DY2													X
6DY2	4DY2													X
4DY2	9DY3													X
4DY2	9DY2													X
4DY2	6DY2													X
4DY2	6DY3													X
4DY2	4DY2													X

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Comb	oinations					Voice	Grade	Servic	e (VG)	ı				
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
6EA2-E	4AC2		X											
			X											
6EA2-M	4AC2		X											
6EA2-E	2AC2													
6EA2-M	2AC2		X											
6EA2-E	4DX2									X				
6EA2-M	4DX2									X				
6EA2-E	4DX3									X				
6EA2-M	4DX3									X				
9EA2	9DY3													X
9EA2	9DY2													X
9EA2	6DY3													X
9EA2	6DY2													X
9EA2	4DY2													X
9EA3	9DY3													X
9EA3	9DY2													X
9EA3	6DY3													X
9EA3	6DY2													X
4EA3	4DY2													X
6EA2-E	9DY3			X				X	X					
6EA2-E	9DY2			X				X	X					
6EA2-E	6DY3			X				X	X					
6EA2-E	6DY2			X				X	X					
6EA2-E	4DY2			X				X	X					
CEAO M	001/2			37				37	37					
6EA2-M	9DY3			X				X	X					
6EA2-M	9DY2			X				X	X					
6EA2-M	6DY3			X				X	X					
6EA2-M	6DY2			X				X	X					
6EA2-M	4DY2			X				X	X					
6EA2-M	2DY2			X				X	X					

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Comb	inations					Voice	Grade	Service	e (VG)					
IC	End User	1	2	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	7	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
6EA2-E	2DY2			X				X	X					
4EA2-E	9DY3			21				21	21					X
4EA2-E	9DY2													X
4EA3-E	9DY3			X				X						1.
4EA3-E	9DY2			X				X						
4EA3-E	6DY3			X				X						
4EA3-E	6DY2			X				X						
4EA3-E	4DY2			X				X						
4EA3-E	2DY2			X				X						
4EA2-E	6DY3													X
4EA2-E	6DY2													X
4EA2-E	4DY2													X
4EA2-M	9DY3													X
4EA2-M	9DY2													X
4EA2-M	6DY3													X
4EA2-M	6DY2													X
4EA2-M	4DY2													X
9EA2	9EA2													X
9EA2	9EA3													X
9EA2	6EA2-E													X
9EA2	6EA2-M													X
9EA2	4EA2-E													X
9EA2	4EA2-M													X
9EA3	9EA2													X
9EA3	9EA3													X
9EA3	6EA2-E													X
9EA3	6EA2-M													X
9EA3	4EA2-E													X
9EA3	4EA2-M													X
6EA2-E	9EA2			X				X	X					X
6EA2-E	9EA3			X				X	X					X
6EA2-M	9EA2			X				X	X					X

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Comb	inations					Voice	Grade	Servic	e (VG)					
IC	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
CEAO M	OF 4.2			<b>3</b> 7				<b>3</b> 7	37					v
6EA2-M	9EA3			X				X	X					X
6EA2-E	6EA2-E			X				X	X	37				X
6EA2-E	6EA2-M			X				X	X	X				X
6EA2-M	6EA2-E			X				X	X	37				X
6EA2-M	6EA2-M			X				X	X	X				X
6EA2-E	4EA2-E			X				X	X					X
6EA2-E	4EA2-M			X				X	X					X
6EA2-M	4EA2-E			X				X	X					X
6EA2-M	4EA2-M			X				X	X					X
4EA2-E	9EA2													X
4EA2-E	9EA3													X
4EA2-E	6EA2-E													X
4EA2-E	6EA2-M													X
4EA2-E	4EA2-E													X
4EA3-E	6EA2-E			X				X						
4EA3-E	6EA2-M			X				X						
4EA3-E	4EA2-E			X				X						
4EA3-E	4EA2-M			X				X						
4EA2-E	4EA2-M													X
4EA2-M	9EA2													X
4EA3-E	9EA2			X				X						
4EA3-E	9EA3			X				X						
4EA2-M	9EA3													X
4EA2-M	6EA2-E													X
4EA2-M	6EA2-M													X
4EA2-M	4EA2-E													X
4EA2-M	4EA2-M													X
9EA2	8EB2-E													X
9EA2	8EB2-M													X
9EA2	6EB2-E													X
9EA2	6EB2-M													X
9EA2	8EB2-E													X
9EA3	8EB2-M													X
9EA3	6EB2-W													X
9EA3	6EB2-M													X
6EA2-E	8EB2-E			X				X	X					X
OEAZ-E	OLD2-E			Λ				Λ	Λ					Λ

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Comb	oinations					Voice	Grade	Servic	e (VG)	ı				
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
6EA2-E	8EB2-M			X				X	X	X				X
6EA2-E	6EB2-E			X				X	X	21				X
6EA2-E	6EB2-M			X				X	X					X
6EA2-M	8EB2-E			X				X	X					X
6EA2-M	8EB2-M			X				X	X	X				X
6EB3-E	6EB2-E			X				X	21	21				21
6EB3-E	6EB2-M			X				X						
6EA2-M	6EB2-E			X				X	X					X
6EA2-M	6EB2-M			X				X	X					X
4EA2-E	8EB2-E			21				7.	21					X
4EA2-E	8EB2-M													X
4EA3-E	8EB2-E			X				X						
4EA3-E	8EB2-M			X				X						
4EA2-E	6EB2-E													X
4EA2-E	6EB2-M													X
4EA3-E	6EB2-E			X				X						
4EA3-E	6EB2-M			X				X						
4EA2-M	8EB2-E													X
4EA2-M	8EB2-M													X
4EA2-M	6EB2-E													X
4EA2-M	6EB2-M													X
6EA2-E	2LA2		X					X						
6EA2-M	2LA2		X					X						
6EA2-E	2LB2		X					X						
6EA2-M	2LB2		X					X						
6EA2-E	2LC2		X					X						
6EA2-M	2LC2		X					X						
6EA2-E	2LO3		X					X						
6EA2-M	2LO3		X					X						
6EA2-E	6LS2		X	X				X						
6EA2-M	6LS2		X	X				X						
6EA2-E	4LS2		X	X				X						
6EA2-M	4LS2		X	X				X						
6EA2-E	2LS2		X	X				X	X					
6EA2-M	2LS2		X	X				X	X					
6EA2-E	2LS3		X	X				X						

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

_ FI Comb	oinations					Voice	Grade	Service	e (VG)					
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	7	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
6EA2-M	2LS3		X	X				X						
6EA2-E 6EA2-M	4RV2-T 4RV2-T			X X				X X						
6EA2-E	2RV2-T			X				X						
6EA2-M	2RV2-T			X				X						
6EA2-E	4SF3									X				
6EA2-M	4SF3									X				
6EA2-E	4SF2		X	X				X	X	X				
6EA2-M	4SF2		X	X				X	X	X				
4EA3-E	4SF2			X				X						
8EB2-E	4AC2		X											
8EB2-M	4AC2		X											
8EB2-E	2AC2		X											
8EB2-M	2AC2		X											
8EB2-E	4DX2									X				
8EB2-M	4DX2									X				
8EB2-E	4DX3									X				
8EB2-M	4DX3									X				
8EB2-E	9DY3			X				X	X					X
8EB2-E	9DY2			X				X	X					X
8EB2-E	6DY3			X				X	X					X
8EB2-E	6DY2			X				X	X					X
8EB2-E	4DY2			X				X	X					X
8EB2-E	2DY2			X				X	X					
8EB2-M	9DY3			X				X	X					X
8EB2-M	9DY2			X				X	X					X
8EB2-M	6DY3			X				X	X					X
8EB2-M	6DY2			X				X	X					X
8EB2-M	4DY2			X				X	X					X
8EB2-M	2DY2			X				X	X					
6EB2-E	9DY2													X

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

(14) <u>Available Facility Interface (FI) Combinations</u> (Cont'd)

FI Comb	oinations					Voice	e Grade	Servic	e (VG)					
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
6EB2-E	9DY3													X
6EB3-E	9DY2			X				X						
6EB3-E	9DY3			X				X						
6EB2-E	6DY2													X
6EB3-E	6DY2			X				X						
6EB2-E	6DY3													X
6EB3-E	6DY3			X				X						
6EB2-E	4DY2													X
6EB3-E	2DY2			X				X						
6EB3-E	4DY2			X				X						
6EB2-M	9DY2													X
6EB2-M	9DY3													X
6EB2-M	6DY2													X
6EB2-M	6DY3													X
6EB2-M	4DY2													X
8EB2-E	9EA2			X				X	X					X
8EB2-E	9EA3			X				X	X					X
8EB2-M	9EA2			X				X	X					X
8EB2-M	9EA3			X				X	X					X
8EB2-E	6EA2-E			X				X	X					X
8EB2-E	6EA2-M			X				X	X	X				X
8EB2-M	6EA2-E			X				X	X					X
8EB2-M	6EA2-M			X				X	X	X				X
8EB2-E	4EA2-E			X				X	X					X
8EB2-E	4EA2-M			X				X	X					X
8EB2-M	4EA2-E			X				X	X					X
8EB2-M	4EA2-M			X				X	X					X
6EB2-E	9EA2													X
6EB2-E	9EA3													X
6EB3-E	9EA2			X				X						
6EB3-E	9EA3			X				X						
6EB2-M	9EA2													X
6EB2-M	9EA3													X
6EB2-E	6EA2-E													X
6EB2-E	6EA2-M													X

ISSUED: July 13, 2006 EFFECTIVE: July 17, 2006

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Combinatio	ons				Voice	Grade S	Service	(VG)					
<u>IC</u> <u>En</u>	nd User 1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
	6EA2-E		X				X						
	6EA2-M		X				X						
	5EA2-E												X
	6EA2-M												X
	4EA2-E												X
	4EA2-M												X
	4EA2-E		X				X						
6EB3-E	4EA2-M		X				X						
	4EA2-E												X
6EB2-M	4EA2-M												X
8EB2-E	8EB2-E		X				X	X					X
8EB2-E	8EB2-M		X				X	X	X				X
8EB2-M	8EB2-E		X				X	X					X
8EB2-M	8EB2-M		X				X	X	X				X
8EB2-E	6EB2-E		X				X						
8EB2-E	6EB2-M		X				X						
8EB2-M	6EB2-E		X				X						
8EB2-M	6EB2-M		X				X						
6EB2-E	SEB2-E												X
6EB2-E	8EB2-M												X
6EB2-M	SEB2-E												X
6EB2-M	8EB2-M												X
6EB3-E	6EB2-E												X
6EB3-E	6EB2-M												X
6EB3-E	BEB2-E		X				X						
6EB3-E	BEB2-M		X				X						
6EB2-M	6EB2-E												X
6EB2-M	6EB2-M												X
8EB2-E	2LA2	X					X						
8EB2-M	2LA2	X					X						
	2LB2	X					X						
8EB2-M 2	2LB2	X					X						

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Combinations         Voice Grade Service (VG)           IC         End User         1         2         3         4         5         6         7         8         9         10	<u>11</u>	
	11	<u>12</u> <u>13</u>
8EB2-E 2LC2 X X		
8EB2-M 2LC2 X X		
8EB2-E 2LO3 X X		
8EB2-M 2LO3 X X		
8EB2-E 6LS2 X X X		
8EB2-M 6LS2 X X		
8EB2-E 4LS2 X X		
8EB2-M 4LS2 X X		
8EB2-E 2LS2 X X X		
8EB2-M 2LS2 X X X		
8EB2-E 2LS3 X X X		
8EB2-M 2LS3 X X X		
8EB2-E 4RV2-T X X		
8EB2-M 4RV2-T X X		
8EB2-E 2RV2-T X X		
8EB2-M 2RV2-T X X		
8EB2-E 4SF2 X X X X X		
8EB2-M 4SF2 X X X X X X		
8EB2-E 4SF3 X		
8EB2-M 4SF3 X		
6EB3-E 4SF2 X X		
8EC2 9DY2 X X X		
8EC2 9DY3 X X X		
8EC2 6DY2 X X X		
8EC2 6DY3 X X X		
8EC2 4DY2 X X X		
8EC2 2DY2 X X X		

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Combi	inations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13
8EC2	9EA2			X				X	X					
8EC2	9EA3			X				X	X					
8EC2	6EA2-E			X				X	X					
8EC2	6EA2-M			X				X	X					
8EC2	4EA2-E			X				X	X					
8EC2	4EA2-M			X				X	X					
8EC2	8EB2-E			X				X	X					
8EC2	8EB2-M			X				X	X					
8EC2	6EB2-E			X				X	X					
8EC2	6EB2-M			X				X	X					
8EC2	4SF2			X				X	X					
6EX2-A	6GS2			X				X						
6EX2-A	4GS2			X				X						
6EX2-A	2GS2			X				X						
6EX2-A	2GS3			X				X						
6EX2-B	2LA2		X					X						
6EX2-B	2LB2		X					X						
6EX2-B	2LC2		X					X						
6EX2-B	2LO2	X												
6EX2-B	2LO3		X					X						
02112 D	2200		**											
6EX2-B	4LR2		X											
6EX2-B	2LR2		X											
OLINZ B			4.											

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Comb	oinations					Voice	Grade	Service	e (VG)					
IC	End User	<u>1</u>	2	3	<u>4</u>	<u>5</u>	<u>6</u>	7	8	9	10	<u>11</u>	<u>12</u>	13
6EX2-A	6LS2		X	X				X						
6EX2-A	4LS2		X	X				X						
6EX2-A	2LS2	X	X	X				X						
6EX2-A	2LS3		X	X				X						
6EX2-A	4SF2	X		X				X						
6EX2-B	4SF2	X												
6GO2	6GS2			X				X						
6GO2	4GS2			X				X						
6GO2	2GS2	X		X				X						
6GO2	2GS3			X				X						
4GO2	6GS2			X				X						
4GO3	6GS2			X				X						
4GO2	4GS2			X				X						
4GO3	4GS2			X				X						
4GO2	2GS2	X		X				X						
4GO2	2GS3			X				X						
4GO3	2GS2	X		X				X						
4GO3	2GS3			X				X						
2GO2	2GS2	X		X				X						
2GO3	2GS2	X		X				X						
2GO2	2GS3			X				X						
2GO3	2GS3			X				X						
6GO2	4SF2			X				X						
4GO2	4SF2			X				X						
4GO3	4SF2			X				X						
6GS2	2GO2	X												
4GS2	2GO2	X												
4GS3	2GO2	X												
2GS2	2GO2	X												
2GS3	2GO2	X												

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Com	binations					e (VG)								
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13
CI 00	G 52		37	37				37						
6LO2	6LS2		X	X				X						
6LO2	4LS2		X	X				X						
6LO2	2LS2	X	X	X				X						
6LO2	2LS3		X	X				X						
4LO2	6LS2		X	X				X						
4LO2	4LS2		X	X				X						
4LO3	6LS2		X	X				X						
4LO3	4LS2		X	X				X						
4LO3	2LS3		X	X				X						
4LO3	2LS2	X	X	X				X						
4LO2	2LS2	X	X	X				X						
4LO2	2LS3		X	X				X						
2LO3	2LS3		X	X				X						
2LO3	2LS2	X	X	X				X	X					
2LO2	2LS2	X	X	X				X	X					
2LO2	2LS3		X	X				X						
6LO2	4SF2		X	X				X						
4LO2	4SF2		X	X				X						
4LO3	4SF2		X	X				X						
41 D2	41 D2		37											
4LR3	4LR2		X											
4LR3	2LR2		X											
4LR2	4LR2		X											
4LR2	2LR2		X											
2LR2	2LR2		X											
2LR3	2LR2		X											

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Con	nbinations					Voice	Grade	Service	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4LR2	4SF2		X											
4LR3	4SF2		X											
6LS2	2LA2		X					X						
4LS2	2LA2		X					X						X
4LS3	2LA2		X					X						
2LS2	2LA2		X					X						X
2LS3	2LA2		X					X						
6LS2	2LB2		X					X						
4LS2	2LB2 2LB2		X					X						X
4LS2 4LS3	2LB2 2LB2		X					X						Λ
2LS2	2LB2 2LB2		X					X						X
2LS2 2LS3	2LB2 2LB2		X					X						Λ
2L33	2L <b>D</b> 2		Λ					Λ						
6LS2	2LC2		X					X						
4LS2	2LC2		X					X						X
4LS3	2LC2		X					X						
2LS2	2LC2		X					X						X
2LS3	2LC2		X					X						
6LS2	2LO3			X				X						
6LS2	2LO2		X											
4LS2	2LO2		X											
4LS2	2LO3			X				X						X
4LS3	2LO2		X											
4LS3	2LO3			X				X						
2LS2	2LO2		X					=						
2LS3	2LO2		X											
2LS2	2LO3			X				X						X
2LS3	2LO3			X				X						
	2203			4 1				41						

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Combi	inations					Voice	Grade	Service	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
6LS2	4SF2		X											
4LS3	4SF2		X											
4NO2	6DA2						X				X			
4NO2	4DA2						X				X		X	
4NO2	2DA2						X				21		7.	
2NO3	2DA2						71							X
21103	ZDAZ													Λ
4NO2	4NO2	X	X		X	X	X	X		X				
4NO2	2NO2	X	X			X		X						
2NO2	2NO2	X	X			X		X						
2NO3	2NO2	X	X			X		X						
4RV2-O	4RV2-T			X				X						
4RV2-O	2RV2-T			X				X						
4RV2-O	2RV2-T			X				X						
4RV2-O	4SF2			X				X						
4SF2	4AC2		X											
4SF2	4AC2		X											
4CE2	4DV2									v				
4SF3	4DX3									X				
4SF3	4DX2									X				
4SF2	4DX2									X				
4SF2	4DX3									X				

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Cor	nbinations					Voice	Grade	Servic	e (VG)					
<u>IC</u>	End User	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
4SF3	9DY3			X				X	X					
4SF2	9DY2			X				X	X					
4SF3	9DY2			X				X	X					
4SF2	9DY3			X				X	X					
4SF3	6DY3			X				X	X					
4SF2	6DY2			X				X	X					
4SF2	6DY3			X				X	X					
4SF3	6DY2			X				X	X					
4SF2	4DY2			X				X	X					
4SF3	4DY2			X				X	X					
4SF3	2DY2			X				X	X					
4SF2	2DY2			X				X	X					
4SF2	9EA2			X				X	X					
4SF3	9EA2			X				X	X					
4SF2	9EA3			X				X	X					
4SF3	9EA3			X				X	X					
4SF2	6EA2-E			X				X	X					
4SF2	6EA2-M			X				X	X	X				
4SF3	6EA2-E			X				X	X					
4SF3	6EA2-M			X				X	X	X				
4SF2	4EA2-E			X				X	X					
4SF2	4EA2-M			X				X	X					
4SF3	4EA2-E			X				X	X					
4SF3	4EA2-M			X				X	X					
4SF2	8EB2-E			X				X	X					
4SF2	8EB2-M			X				X	X	X				
4SF3	8EB2-E			X				X	X					
4SF3	8EB2-M			X				X	X	X				
4SF2	6EB2-E			X				X						
4SF2	6EB2-M			X				X						
4SF3	6EB2-E			X				X						
4SF3	6EB2-M			X				X						
-														

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Con	nbinations					Voice	Grade	Servic	e (VG)					
IC	End User	1	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	8	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	13
4002	6000			37				v						
4SF3	6GS2			X				X						
4SF2	6GS2			X				X						
4SF2	4GS2			X				X						
4SF3	4GS2			X				X						
4SF2	2GS2	X		X				X						
4SF2	2GS2 2GS3	Λ		X				X						
		17												
4SF3	2GS2	X		X				X						
4SF3	2GS3			X				X						
4CE2	21.42		v					v						
4SF2	2LA2		X					X						
4SF3	2LA2		X					X						
4SF2	2LB2		X					X						
			X					X						
4SF3	2LB2		Λ					Λ						
4SF2	2LC2		X					X						
4SF3	2LC2		X					X						
151 5	2202		11											
4SF2	2LO3			X				X						
4SF2	2LO2		X											
4SF3	2LO2		X											
4SF3	2LO3			X				X						
+91.2	2LO3			Λ				Λ						

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.1 <u>Analog Services</u> (Cont'd)

# (B) <u>Voice Grade Services</u> (Cont'd)

FI Con	nbinations					Voice	Grade	Service	e (VG)					
IC	End User	<u>1</u>	2	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	9	<u>10</u>	<u>11</u>	<u>12</u>	13
4SF2	4LR2		X											
4SF2	2LR2		X											
4SF3	4LR2		X											
4SF3	2LR2		X											
4SF3	6LS2		X	X				X						
4SF2	6LS2		X	X				X						
4SF2	4LS2		$\mathbf{X}$	X				X						
4SF3	4LS2		X	X				X						
4SF2	2LS2		X	X				X	X					
4SF2	2LS3		X	X				X						
4SF3	2LS2		X	X				X	X					
4SF3	2LS3		X	X				X						
4SF3	4RV2-T			X				X						
4SF2	4RV2-T			X				X						
4SF2	2RV2-T			X				X						
4SF3	2RV2-T			X				X						
4SF3	4SF3									X				
4SF3	4SF2		X	X				X	X	X				
4SF2	4SF2		X	X				X	X	X				
4SF2	4SF3									X				
4TF2	4TF2											X		
4TF2	2TF2											X		
2TF3	2TF2											X		

7. <u>S</u>	Special A	Access S	<u>Service</u>	(Cont'	d)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

#### (C) <u>Program Audio Services</u>

### (1) <u>Program Audio 1 (AP1) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service AP1 provides a channel with a nominal bandwidth from 200 to 3,500 Hz for the transmission of a complex signal voltage, such as speech or music, between an IC terminal location and an end user premises. Only one-way transmission is provided.

### (b) <u>Illustrative Application</u>

Special Access Service AP1 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

Wired Music

### (c) Optional Features

- Gain Conditioning control of 1004 Hz EML at initiation of service to 0 dB  $\pm$  0.5 dB.
- Central office bridging capability (wired music).

### (d) <u>Transmission Performance</u>

### - Actual Measured Loss (AML)

When the service is initiated, the 1004 Hz AML will be less than 10.0 dB. With the addition of optional gain conditioning, the initial AML will be 0  $\pm$  0.5 dB. Remedial action will be taken when the loss variation at 1004 Hz exceeds the initial AML by  $\pm$  4.0 dB.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
  - (C) <u>Program Audio Services</u> (Cont'd)
    - (1) <u>Program Audio 1 (AP1) Special Access Service</u> (Cont'd)
      - (d) <u>Transmission Performance</u> (Cont'd)
        - Gain/Frequency Distortion

Over the frequency band from 200 to 3,500 Hz, the gain at any frequency will be within the range from +3.0 dB to -10.0 dB with respect to the gain 1004 Hz.

- <u>Signal-to-Idle Circuit Noise</u>

The ratio of received 1004 Hz signal power to the C-message weighted idle circuit noise will be at least 65 dB. The received signal power level is determined by subtracting the channel AML from +18 dBm (the instantaneous peak signal level).

(e) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User	<u>IC</u>	End User
2PG2-3	2PG2-3	2PG2-3	2PG2-3
4DS9-15E {1}	2PG2-3	4DS9-15E {1}	2PG1-3
4AH5-B {2}	2PG2-3	4AH5-B {2}	2PG1-3
4AH6-C {2}	2PG2-3	4AH6-C {2}	2PG1-3
4AH6-D {2}	2PG2-3	4AH6-D {2}	2PG1-3

- Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.
- Available only to the ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

## 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

(C) <u>Program Audio Services</u> (Cont'd)

### (2) <u>Program Audio 2 (AP2) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service AP2 provides a channel with a nominal bandwidth from 100 to 5,000 Hz for the transmission of a complex signal voltage, such as speech or music, between an IC terminal location and an end user premises. Only one-way transmission is provided.

### (b) <u>Illustrative Application</u>

Special Access Service AP2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Wired Music

### (c) Optional Features

- Gain Conditioning control of 1004 Hz AML at initiation of service to 0 dB  $\pm$  0.5 dB.
- Central office bridging capability (wired music).

#### (d) Transmission Performance

### - Actual Measured Loss (AML)

When the service is initiated, the 1004 Hz AML will be less than 32 dB. With the addition of optional gain conditioning, the initial AML will be 0  $\pm$  0.5 dB. Remedial action will be taken when the loss variation at 1004 Hz exceeds the initial AML by  $\pm$  4.0 dB.

## 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

- (C) <u>Program Audio Services</u> (Cont'd)
  - (2) <u>Program Audio 2 (AP2) Special Access Service</u> (Cont'd)
    - (d) <u>Transmission Performance</u> (Cont'd)
    - Gain/Frequency Distortion

Over the frequency band from 100 to 5,000 Hz, the gain at any frequency will be 1.0 dB of the gain at 1004 Hz.

- Signal-to-Idle Circuit Noise

The ratio of received 1004 Hz signal power to the 15 kHz flat weighted idle circuit noise will be at least 64 dB. The received signal power level is determined by subtracting the channel AML from +18 dBm (the instantaneous peak signal level).

### (e) Available Facility Interface Combinations

<u>IC</u>	End User	<u>IC</u>	End User
2PG2-3	2PG2-3	2PG2-3	2PG2-3
2PG2-5	2PG2-5	2PG2-5	2PG1-5
4DS9-15F {1}	2PG2-5	4DS9-15F {1}	2PG1-5
4AH5-B {2}	2PG2-5	4AH5-B {2}	2PG1-5
4AH6-C {2}	2PG2-5	4AH6-C {2}	2PG1-5
4AH6-D {2}	2PG2-5	4AH6D {2}	2PG1-5

Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

Available only to the ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data. Channels 5 and 6 are assigned for AP2.

## 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

#### (C) <u>Program Audio Services</u> (Cont'd)

#### (3) Program Audio 3 (AP3) Special Access Service

#### (a) <u>Description</u>

Special Access Service AP3 provides a channel with a nominal bandwidth from 50 to 8,000 Hz for the transmission of a complex signal voltage, such as speech or music, between an IC terminal location and an end user premises. Only one-way transmission is provided.

### (b) <u>Illustrative Application</u>

Special Access Service AP3 suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

Wired Music

#### (c) Optional Features

- Gain Conditioning control of 1004 Hz AML at initiation of service to 0 dB  $\pm$  0.5 dB.
- Central office bridging capability (wired music).

### (d) <u>Transmission Performance</u>

### - Actual Measured Loss (AML)

When the service is initiated, the 1004 Hz AML will be less than 32 dB. With the addition of optional gain conditioning, the initial AML will be 0  $\pm$  0.5 dB. Remedial action will be taken when the loss variation at 1004 Hz exceeds the initial AML by  $\pm$  4.0 dB.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
      - (C) <u>Program Audio Services</u> (Cont'd)
        - (3) Program Audio 3 (AP3) Special Access Service (Cont'd)
          - (d) <u>Transmission Performance</u> (Cont'd)
            - Gain/Frequency Distortion

Over the frequency band from 50 to 8,000 Hz, the gain at any frequency will be within 1 dB of the gain at 1004 Hz.

- Signal-to-Idle Circuit Noise

The ratio of received 1004 Hz signal power to 15 kHz flat weighted idle circuit noise will be at least 62 dB. The received signal power level is determined by subtracting the channel AML from +18 dBm (the instantaneous peak signal level).

(e) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User	<u>IC</u>	End User
2PG2-8	2PG2-8	2PG2-8	2PG1-8
4DS9-15E {1}	2PG2-8	4DS9-15E {1}	2PG1-8
4AH5-B {2}	2PG2-8	4AH5-B {2}	2PG1-8
4AH6-C {2}	2PG2-8	4AH6-C {2}	2PG1-8
4AH6-D {2}	2PG2-8	4AH6-D {2}	2PG1-8

- Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.
- Available only to the ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data. Channels 5, 6 and 7 are assigned for AP3.

# 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

### (C) <u>Program Audio Services</u> (Cont'd)

#### (4) Program Audio 4 (AP4) Special Access Service

#### (a) <u>Description</u>

Special Access Service AP4 provides a channel with a nominal bandwidth from 50 to 15,000 Hz for the transmission of a complex signal voltage, such as speech or music, between an IC terminal location and an end user premises. Only one-way transmission is provided.

### (b) <u>Illustrative Application</u>

Special Access Service AP4 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Wired Music

## (c) <u>Optional Features</u>

- Gain Conditioning control of 1004 Hz AML at initiation of service to 0 dB  $\pm$  0.5 dB.
- Stereo provision of a pair of gain/phase equalized channels for stereo applications.
  - Central office bridging capability (wired music).

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
      - (C) <u>Program Audio Services</u> (Cont'd)
        - (4) Program Audio 4 (AP4) Special Access Service (Cont'd)
          - (d) Transmission Performance
            - Actual Measured Loss (AML)

When the service is initiated, the 1004 Hz AML will be less than 32 dB. With the addition of optional gain conditioning, the initial AML will be 0  $\pm$  0.5 dB. Remedial action will be taken when the loss variation at 1004 Hz exceeds the initial AML by 0  $\pm$  4.0 dB.

- Gain/Frequency Distortion

Over the frequency band from 50 to 15,000 Hz, the gain at any frequency will be within 1 dB of the gain at 1004 Hz.

- <u>Signal-to-Idle Circuit Noise</u>

The ratio of received 1004 Hz signal power to 15 kHz flat weighted idle circuit noise will be at least 67 dB. The received power level is determined by subtracting the channel AML from +18 dBm (the instantaneous peak signal level).

(e) <u>Available Facility Interface Combinations</u>

IC	End User	IC	End User
2PG2-1	2PG2-1	2PG2-1	2PG1-1
4DS9-15H {1}	2PG2-1	4DS9-15H {1}	2PG1-1

Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

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### 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 Analog Services (Cont'd)

### (D) <u>Video Services</u>

#### (1) <u>Television 1 (TV1) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service TV1 provides a channel with one-way transmission capability for a standard 525 line/60 field monochrome, or National Television Systems Committee color, video signal and one or two associated 15 kHz audio signal(s) between an IC terminal location and an end user premises.

### (b) <u>Illustrative Applications</u>

Special Access Service TV1 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

Commercial Television (Full and Part-Time)

### (c) Transmission Performance

- Video Performance
  - (1) Insertion Gain Variation

One hour  $0dB \pm 0.5dB$ 

(2) Luminance Signal/CCIR Weighted Noise

65dB

### 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 <u>Analog Services</u> (Cont'd)

- (D) <u>Video Services</u>
  - (1) <u>Television 1 (TV1) Special Access Service</u>
    - (c) Transmission Performance (Cont'd)
      - Audio Performance
        - (1) Insertion Gain

 $0dB \pm 1.0dB$ 

(2) Signal/15kHz Flat Weighted Noise

The ratio of received 1004 Hz signal power to 15kHz flat weighted idle circuit noise will be at least 65dB. The received signal power level is determined by subtracting the channel AML from +18dBm (the instantaneous peak signal level).

(d) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User
2TV6-1	4TV6-15
2TV6-1	4TV7-15
2TV7-1	4TV6-15
2TV7-1	4TV7-15
4TV6-15	4TV6-15
4TV6-15	4TV7-15
4TV7-15	4TV6-15
4TV7-15	4TV7-15
2TV6-2	6TV6-15
2TV6-2	6TV7-15
2TV7-2	6TV6-15
2TV7-2	6TV7-15
6TV6-15	6TV6-15
6TV6-15	6TV7-15
6TV7-15	6TV6-15
6TV7-15	6TV7-15

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 <u>Analog Services</u> (Cont'd)
      - (D) <u>Video Services</u> (Cont'd)
        - (2) <u>Television 2 (TV2) Special Access Service</u>
          - (a) <u>Description</u>

Special Access Service TV2 provides a channel with one-way transmission capability for a standard 525 line/60 field monochrome, or National Television Systems Committee color, video signal and one or two associated 5 kHz audio signal(s) between an IC terminal location and an end user premises.

(b) <u>Illustrative Applications</u>

Special Access Service TV2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

Noncommercial Television (Full-Time)

- (c) <u>Transmission Performance</u>
  - Video Performance
    - (1) Insertion Gain Variation

One hour  $0dB \pm 0.5dB$ 

(2) Luminance Signal/CCIR Weighted Noise

65dB

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
      - (D) <u>Video Services</u> (Cont'd)
        - (2) <u>Television 2 (TV2) Special Access Service</u> (Cont'd)
          - (c) <u>Transmission Performance</u> (Cont'd)
            - Audio Performance
              - (1) Insertion Gain

 $0dB \pm 1.5dB$ 

(2) Signal/15kHz Flat Weighted Noise

The ratio of received 1004 Hz signal power to 15kHz flat weighted idle circuit noise will be at least 64dB. The received signal power level is determined by subtracting the channel AML from +18dBm (the instantaneous peak signal level).

(d) Available Facility Interface Combinations

<u>IC</u>	End User
4TV6-5	4TV6-5
4TV6-5	4TV7-5
4TV7-5	4TV6-5
4TV7-5	4TV7-5
6TV6-5	6TV6-5
6TV6-5	6TV7-5
6TV7-5	6TV6-5
6TV7-5	6TV7-5

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
  - (E) Wideband Analog Services
    - (1) <u>Wideband Analog 1 (WA1) Special Access Service</u>
  - (a) <u>Description</u>

Special Access Service WA1 provides a high capacity channel with a bandwidth from 60 kHz to 108 kHz for the transmission of a wideband signal between an IC terminal location and an end user's premises, between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative Application</u>

Special Access Service WA1 is suitable for the transmission of a 12 channel group.

- (c) Optional Feature
  - Central office multiplexing.
- (d) <u>Transmission Performance</u>
  - Nominal Bandwidth

60 kHz to 108 kHz with pilot slot reserved at 104.08 kHz.

(e) Available Facility Interface Combinations

<u>IC</u> <u>End User</u>

4AH5-B 4AH5-B

4AH6-C {1}4AH5-B

4AH6-D {1} 4AH5-B

Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

7.	Special Access Service	(Cont'd)
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## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.1 <u>Analog Services</u> (Cont'd)

- (E) <u>Wideband Analog Services</u> (Cont'd)
  - (2) Wideband Analog to Digital (WA1T) Special Connector Service
    - (a) <u>Description</u>

Special Access Service WA1T provides two WA1 channels from an IC terminal location for connection to an HC1 Special Access Service at a Telephone Company designated Hub location via a Group to DS1 multiplexer. The HC1 service may only be extended to another Hub for multiplexing to voice or other service.

(b) <u>Illustrative Application</u>

Special Access Service WA1T is suitable for the transmission of 24 channels connected via multiplexing to 24 DS1 channels.

- (c) Optional Feature
  - Central office multiplexing.
- (d) <u>Transmission Performance</u>

Provides two Special Access WA1 channels each with the performance shown for WA1 in (1)(d) preceding.

NOTE: The Access Connection and Channel Mileage rate elements for WA1 apply for WA1T. Two of each are required.

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- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 Analog Services (Cont'd)
      - (E) <u>Wideband Analog Services</u> (Cont'd)
        - (3) Wideband Analog 2 (WA2) Special Access Service
          - (a) <u>Description</u>

Special Access Service WA2 provides a high capacity channel with a bandwidth from 312 kHz to 552 kHz for the transmission of a wideband signal between an IC terminal location and an end user premises or between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative Application</u>

Special Access Service WA2 is suitable for the transmission of a 60 channel supergroup.

- (c) Optional Feature
  - Central office multiplexing.
- (d) <u>Transmission Performance</u>
  - Nominal Bandwidth

312 kHz to 552 kHz with pilot slot reserved at 315.92 kHz.

(e) Available Facility Interface Combinations

<u>IC</u>	End User
4AH6-C	4АН6-С
4AH6-D {1}	4AH6-C {2}

- Available only to ICs selecting the multiplexed 4-wire High Capacity analog facility interface option at the IC terminal location and providing subsequent system and channel assignment data.
- {2} Available only via a Telephone Company designated HUB where multiplexing is offered.

7. <u>Special Access Service</u> (Cont'd	l)
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### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 <u>Analog Services</u> (Cont'd)

- (E) <u>Wideband Analog Services</u> (Cont'd)
  - (4) Wideband Analog 2A (WA2A) Special Access Service
    - (a) <u>Description</u>

Special Access Service WA2A provides a high capacity channel with a bandwidth from 564 kHz to 3084 kHz for the transmission of a wideband signal between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative Application</u>

Special Access Service WA2A is suitable for the transmission of a 600 channel FDM mastergroup.

- (c) Optional Feature
  - Central office multiplexing.
- (d) <u>Transmission Performance</u>
  - Nominal Bandwidth

564 kHz to 3084 kHz with pilot slot reserved at 2840 kHz.

(e) <u>Available Facility Interface Combinations</u>

IC End User{1}

4AH6-D 4AH6-D

{1} See 7.4.5(B) following for explanation.

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7.	Special	Access	<b>Service</b>	(Cont'd)
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### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.1 <u>Analog Services</u> (Cont'd)

- (E) <u>Wideband Analog Services</u> (Cont'd)
  - (5) Wideband Analog 3 (WA3) Special Access Service
    - (a) <u>Description</u>

Special Access Service WA3 provides a channel for the transmission of a wideband signal falling approximately within the 10Hz to 20Hz (actually 300Hz to 18kHz) frequency band at an end user premises. The actual frequency range varies and is limited by the interface available at the IC terminal location. Service is provided between an IC terminal and an end user premises. A voicebank coordination channel is provided with this service.

## (b) <u>Illustrative Application</u>

Special Access Service WA3 is suitable for use as part of the facilities required to provide intrastate facsimile service.

- (c) <u>Transmission Performance</u>
  - Nominal Bandwidth

300Hz to 18kHz

(d) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User
4WD5-1	4WA5-1
4WD5-2	4WA5-1

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- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.1 <u>Analog Services</u> (Cont'd)
      - (E) <u>Wideband Analog Services</u> (Cont'd)
        - (6) Wideband Analog 4 (WA4) Special Access Service
          - (a) <u>Description</u>

Special Access Service WA4 provides a channel with a frequency from approximately 29kHz to 44kHz for the transmission of a wideband signal between an IC terminal location and an end user premises. A voiceband coordinating channel is provided with this service.

(b) <u>Illustrative Application</u>

Special Access Service WA4 is suitable for use as part of the facilities required to provide intrastate facsimile service.

- (c) <u>Transmission Performance</u>
  - Nominal Bandwidth

29kHz to 44kHz

(d) <u>Available Facility Interface Combinations</u>

IC End User

. 4WD5-3 4WA5-2

### 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.2 <u>Digital Services</u>

#### (A) Wideband Digital Services

## (1) Wideband Digital 1 (WD1) Special Access Service

#### (a) <u>Description</u>

Special Access Service WD1 provides a channel for the transmission of 19.2 kbps synchronous serial data between an IC terminal location and an end user premises. Optional arrangements are available for transmission at 18.75 kbps or for transmission of nonsynchronous data with a minimum signal element width of 52 microseconds. A voiceband coordinating channel can be provided with this service at rates as specified for the specific VG service required by the customer.

#### (b) <u>Illustrative Application</u>

The nonsynchronous option is suitable for use as part of the facilities required to provide intrastate facsimile transmission.

## (c) <u>Transmission Performance</u>

#### - <u>Error-Free Seconds</u>

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

#### (d) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User
8WB5-19S	12WC6-19
8WB5-18S	12WC6-18
8WB5-19A	10WC6-19

## 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.2 <u>Digital Services</u> (Cont'd)

#### (A) <u>Wideband Digital Services</u> (Cont'd)

#### (2) Wideband Digital 2 (WD2) Special Access Services

#### (a) <u>Description</u>

Special Access Service WD2 provides a channel for the transmission of 50 kbps synchronous or isochronous serial data between an IC terminal location and an end user premises. Optional arrangements are available for transmission of synchronous serial data at 40.8 kbps or for transmission of nonsynchronous data with a minimum signal element width of 20 microseconds. An arrangement may also be included to accommodate the nonsimultaneous transmission of signal and supervisory tones between the frequencies of 300 and 3000 Hz. A voiceband coordinating channel can be provided with this service at rates as specified for the specific voice grade service required by the customer.

#### (b) <u>Illustrative Application</u>

Special Access Service WD2 is suitable for use as part of the facilities required to provide intrastate facsimile transmission.

#### (c) <u>Transmission Performance</u>

### - <u>Error-Free Seconds</u>

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

#### (d) Available Facility Interface Combinations

	<u>IC</u>	End User
8WB5-50S 8WB5-40S 8WB5-50A	12WC6 12WC6 10WC6	-40

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- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.2 <u>Digital Services</u> (Cont'd)
      - (A) <u>Wideband Digital Services</u> (Cont'd)
        - (3) Wideband Digital 3 (WD3) Special Access Service (Cont'd)
          - (a) <u>Description</u>

Special Access Service WD3 provides a channel for the transmission of 230.4 kbps synchronous serial data between an IC terminal location and an end user premises. Optional arrangements are available for the transmission of nonsynchronous data with a minimum signal element width of 4.3 microseconds. A voiceband coordinating channel can be provided with this service at rates as specified for the specific VG service required by the customer.

(b) <u>Illustrative Application</u>

The nonsynchronous option is suitable for use as part of the facilities required to provide intrastate facsimile transmission.

- (c) <u>Transmission Performance</u>
  - <u>Error-Free Seconds</u>

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

(d) <u>Available Facility Interface Combinations</u>

<u>IC</u> <u>End User</u>

8WB5-23S 12WC6-23S 8WB5-23A 10WC6-23

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
  - 7.2.2 <u>Digital Services</u> (Cont'd)
    - (A) <u>Wideband Digital Services</u> (Cont'd)
      - (4) Wideband Digital 4 (WD4) Special Access Service
        - (a) <u>Description</u>

Special Access Service WD4 provides for the transmission of 56 kbps synchronous serial data between an IC terminal location and an end user premises.

(b) <u>Illustrative Application</u>

When using the DATAPHONE Digital Service timing option, this service is suitable for use as part of the facilities required to provide intrastate Digital Data Off-Net Extension.

- (c) <u>Transmission Performance</u>
  - <u>Error-Free Seconds</u>

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

(d) Available Facility Interface Combinations

 IC
 End User

 4WB5-64
 6DU5-56

 4DO5
 6DU5-56

### 7. <u>Special Access Service</u> (Cont'd)

### 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

### 7.2.2 <u>Digital Services</u> (Cont'd)

#### (B) <u>Digital Data Access Services</u>

Digital Data Access Services are only available via Telephone Company designated Digital Data Hubs.

### (1) <u>Digital Data Access 1 (DA1) Special Access Service</u>

#### (a) <u>Description</u>

Special Access Service DA1 provides a channel for duplex four-wire transmission capability of serial synchronous data at the 2.4 kbps rate between an IC terminal location and an end user premises. The service is synchronous with timing provided through the Telephone Company's facilities to the end user on the received bit stream.

DA1 is available only between the IC terminal location and locations designed by the Telephone Company which are served by digital facilities. All other locations are connectable to the Telephone Company designated digital Hub only through an analog off-network extension which is provided as a Voice Grade 10 Service as set forth in Section 7.2.1(B) preceding.

### (b) <u>Illustrative Application</u>

Special Access Service DA1 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Data - 2.4 kbps

#### (c) Optional Features

- Transfer arrangement.
- Central office bridging capability.

### (d) <u>Transmission Performance</u>

#### Error-Free Seconds

While in service, the monthly average of the error-free seconds will be equal to or greater than 99.875%.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
  - 7.2.2 <u>Digital Services</u> (Cont'd)
  - (B) <u>Digital Data Access Services</u> (Cont'd)
    - (1) Digital Data Access 1 (DA1) Special Access Service (Cont'd)
      - (e) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User	
4DS9-15 {1}	6DU5-24	
6DU5-24	6DU5-24	

- (2) Digital Data Access 2 (DA2) Special Access Service
  - (a) <u>Description</u>

Special Access Service DA2 provides a channel for duplex four-wire transmission capability of serial synchronous data at the 4.8 kbps rate between an IC terminal locations and an end user premises. The service is synchronous with timing provided through the Telephone Company's facilities to the end user on the received bit stream.

DA2 is available only between the IC terminal location and locations designated by the Telephone Company which are served by digital facilities. All other locations are connectable to the Telephone Company designated digital Hub only through an analog off-network extension which is provided as a Voice Grade 10 Service as set forth in Section 7.2.1(B) preceding.

(b) <u>Illustrative Application</u>

Special Access Service DA2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Data 4.8 kbps
- Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

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7.	<b>Specia</b>	Special Access Service (Cont'd)					
	7.2	Techni	<u>ical Service Descriptions for Special Access Service</u> (Cont'd) <u>Digital Services</u> (Cont'd)				
		7.2.2					
			(B)	<u>Digital Data Access Services</u> (Cont'd)			
				(2)	<u>Digita</u>	ıl Data Acc	ess 2 (DA2) Special Access Service (Cont'd)
					(c)	Optiona	al Features
						-	Loop transfer arrangement. Central office bridging capability.
					(d)	Transm	ission Performance
						-	Error-Free Seconds
							While in service, the monthly average of the error-free seconds will be equal to or greater than 99.875%.
					(e)	Availab	ole Facility Interface Combinations
						<u>IC</u>	End User

4DS9-15 {1} 6DU5-48 6DU5-48 6DU5-48

Available only to ICs selecting the multiplexed 4-wire facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

7. <u>S</u>	Special A	Access S	<u>Service</u>	(Cont'	d)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.2 <u>Digital Services</u> (Cont'd)

- (B) <u>Digital Data Access Services</u> (Cont'd)
  - (3) Digital Data Access 3 (DA3) Special Access Service

### (a) <u>Description</u>

Special Access Service DA3 provides a channel for duplex four-wire transmission capability of serial synchronous data at the 9.6 kbps rate between an IC terminal location and an end user premises. The service is synchronous with timing provided through the Telephone Company's facilities to the end user on the received bit stream.

DA3 is available only between the IC terminal location and locations designated by the Telephone Company which are served by digital facilities. All other locations are connectable to the Telephone Company designated digital Hub only through an analog off-network extension which is provided as a Voice Grade 10 Service as set forth in Section 7.2.1(B) preceding.

## (b) <u>Illustrative Application</u>

Special Access Service DA3 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Data - 9.6 kbps

## (c) Optional Features

- Loop transfer arrangement.
- Central office bridging capability.

#### (d) <u>Transmission Performance</u>

### - Error-Free Seconds

While in service, the monthly average of the error-free seconds will be equal to or greater than 99.875%.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
  - 7.2.2 <u>Digital Services</u> (Cont'd)
  - (B) <u>Digital Data Access Services</u> (Cont'd)
    - (3) Digital Data Access 3 (DA3) Special Access Service (Cont'd)
      - (e) Available Facility Interface Combinations

<u>IC</u>	End User
4DS9-15 {1}	6DU5-96
6DU5-96	6DU5-96

- (4) <u>Digital Data Access 4 (DA4) Special Access Service</u>
  - (a) <u>Description</u>

Special Access Service DA4 provides a channel for duplex four-wire transmission capability of serial synchronous data at the 56 kbps rate between an IC terminal location and an end user premises. The service is synchronous with timing provided through the Telephone Company's facilities to the end user on the received bit stream.

DA4 is available only between the IC terminal location and locations designated by the Telephone Company which are served by digital facilities. All other locations are connectable to the Telephone Company designated digital Hub only through an analog off-network extension which is provided as a Wideband Digital Service as set forth in Section 7.2.2(A) preceding.

(b) <u>Illustrative Application</u>

Special Access Service DA4 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Data - 56 kbps

Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
  - 7.2.2 <u>Digital Services</u> (Cont'd)
  - (B) <u>Digital Data Access Services</u> (Cont'd)
    - (c) Optional Features
      - Loop transfer arrangement.
      - Central office bridging capability.
    - (d) <u>Transmission Performance</u>
    - <u>Error-Free Seconds</u>

While in service, the monthly average of the error-free seconds will be equal to or greater than 99.875%.

(e) <u>Available Facility Interface Combinations</u>

<u>IC</u>	End User
4DS9-15 {1}	6DU5-56
6DU5-56	6DU5-56

- (5) <u>Subrate Multiplexed Digital Data Access 1 (SR1) Special Connector Service</u>
  - (a) <u>Description</u>

Special Access Service SR1 provides the ability to combine up to 20 DA1 Special Access Services into a single channel of a HC1 Special Access Service.

Note: The only rate elements applicable to this service are the Carrier Submultiplexing Unit and the Carrier Multiplexing Plug-Ins per 64 kbps channel.

Available only to ICs selecting the multiplexed 4-wire DSX facility interface option at the IC terminal location and providing subsequent system and channel assignment data.

7. <u>S</u>	Special A	Access S	<u>Service</u>	(Cont'	d)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.2 <u>Digital Services</u> (Cont'd)

- (B) <u>Digital Data Access Services</u> (Cont'd)
  - (6) Subrate Multiplexed Digital Data Access 2 (SR2) Special Connector Service

### (a) <u>Description</u>

Special Access Service SR2 provides the ability to combine up to 10 DA2 Special Access Services into a single channel of a HC1 Special Access Service. Note: The only rate elements applicable to this service are the Carrier Submultiplexing Unit and the Carrier Multiplexing Plug-Ins per 64 kbps channel.

## (7) <u>Subrate Multiplexed Digital Data Access 3 (SR3) Special Connector Service</u>

## (a) <u>Description</u>

Special Access Service SR3 provides the ability to combine up to five DA3 Special Access Services into a single channel of a HC1 Special Access Service.

Note: The only rate elements applicable to this service are the Carrier Submultiplexing Unit and the Carrier Multiplexing Plug-Ins per 64 kbps channel.

7. <u>S</u>	Special A	Access S	<u>Service</u>	(Cont'	d)

## 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

## 7.2.2 <u>Digital Services</u> (Cont'd)

#### (C) <u>High Capacity Services</u>

#### (1) High Capacity 1 (HC1) Special Access Service

### (a) <u>Description</u>

Special Access Service HC1 provides a channel for the transmission of nominal 1.544 Mbps isochronous serial data between an IC terminal location and an end user premises, between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

## (b) <u>Illustrative Application</u>

Special Access Service HC1 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- 1.544 Mbps Access Line

# (c) <u>Optional Features</u>

- Automatic Protection Switching.
- Central office multiplexing.
- Clear Channel Capability (CCC)

## (d) <u>Transmission Performance</u>

## - <u>Error-Free Seconds</u>

While in service, 98.75% of the one-second intervals will be error-free measured over a continuous 24 hour period.

ISSUED: July 13, 2006

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.2 <u>Digital Services</u> (Cont'd)
      - (C) <u>High Capacity Services</u> (Cont'd)
        - (1) <u>High Capacity 1 (HC1) Special Access Service</u> (Cont'd)
          - (e) Available Facility Interface Combinations

<u>IC</u>	End User
4DS9-15J	6DU9-A
4DS9-15	6DU9-B
4DS9-15K	6DU9-B
4DS9-15K	6DU9-C
4DS9-31 {1}	6DU9-A,B or C
4DS0-63 {1}	6DU9-A,B or C
4DS6-44 {1}	6DU9-A,B or C
4DS6-27 {1}	6DU9-A,B or C

- (2) <u>High Capacity 1C (HC1C) Special Access Service</u>
  - (a) <u>Description</u>

Special Access Service HC1C provides a channel for the transmission of nominal 3.152 Mbps isochronous serial data between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative</u> <u>Application</u>

Special Access Service HC1C is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- 3.152 Mbps Access Line

Available only to ICs selecting the multiplexed 4-wire DSX facility interface option of the IC terminal location and providing subsequent system and channel assignment data.

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
  - 7.2.2 <u>Digital Services</u> (Cont'd)
    - (C) <u>High Capacity Services</u> (Cont'd)
      - (2) <u>High Capacity 1C (HC1C) Special Access Service</u> (Cont'd)
        - (c) <u>Optional Features</u>
          - Central office multiplexing.
        - (d) <u>Available Facility Interface Combinations</u>

<u>IC</u> <u>End User</u>

4DS9-31 4DS9-31

- (3) High Capacity 2 (HC2) Special Access Service
  - (a) <u>Description</u>

Special Access Service HC2 provides a channel for the transmission of nominal 6.312 Mbps isochronous serial data between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative Application</u>

Special Access Service HC2 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Service High Speed
- (c) Optional Feature
  - Central office multiplexing.
- {1} See Section 7.4.5(B) following for explanation.

7.	<u>Specia</u>	l Access S	Service (	Cont'd)				
	7.2	Techni	cal Servi	ice Descri	iptions fo	or Special A	ccess S	ervice (Cont'd)
		7.2.2	Digital	Services	(Cont'd)	)		
			(C)	High C	apacity So	ervices (Con	nt'd)	
				(3)	High C	apacity 2 (H	(C2) Spe	ecial Access Service (Cont'd)
					(d)	Available	Facility	Interface Combinations
						<u>IC</u>		End User
					41	DS0-63		4DS0-63
				(4)	High C	apacity 3 (H	(C3) Sp	ecial Access Service
					(a)	Descriptio	<u>n</u>	
•						of 44.736 locations	or bety	ervice HC3 provides a channel for the transmission is isochronous serial data between IC terminal even an IC terminal location and a Telephone ted Hub where multiplexing is offered.
•					(b)	Illustrative	e Applic	eation
						-		Service HC3 is suitable for use as part of the to provide intrastate telecommunications services
						- I	Digital S	ervice - High Speed
					(c)	Optional F	Feature	
						- (	Central o	office multiplexing.
					(d)	Available	Facility	Interface Combinations
						IC		End User

{1} See 7.4.5(B) following for explanation.

4DS6-44

4DS6-44

- 7. <u>Special Access Service</u> (Cont'd)
  - 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)
    - 7.2.2 <u>Digital Services</u> (Cont'd)
      - (C) <u>High Capacity Services</u> (Cont'd)
        - (5) High Capacity 4 (HC4) Special Access Service
          - (a) <u>Description</u>

Special Access Service HC4 provides a channel for the transmission of 274.176 Mbps isochronous serial data between IC terminal locations or between an IC terminal location and a Telephone Company designated Hub where multiplexing is offered.

(b) <u>Illustrative Application</u>

Special Access Service HC4 is suitable for use as part of the facilities required to provide intrastate telecommunications services such as:

- Digital Service High Speed
- (c) Optional Feature
  - Central office multiplexing.
- (d) <u>Available Facility Interface Combinations</u>

<u>IC</u> <u>End User</u>

4DS6-27 4DS6-27

{1} See Section 7.4.5(B) following for explanation.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.3 <u>Service Designator/Network Channel Code Conversion Table</u>

The purpose of this table is to show the relationship between the service designator codes (e.g. VG1, NB2, etc.) and the network channel codes that are used for various administrative purposes.

Service Designator	Network Channel
Code	Code
NB1	NT
NB2	NU
NB3	NV
NB4	NW
NB5	NY
VG1	LB
VG2	LC
VG3	LD
VG4	LE
VG5	LF
VG6	LG
VG7	LH
VG8	LJ
VG9	LK
VG10	LN
VG11	LP
VG12	LR
VG13	LU
AP1	PE
AP2	PF
AP3	PJ
AP4	PK

# 7. <u>Special Access Service</u> (Cont'd)

# 7.2 <u>Technical Service Descriptions for Special Access Service</u> (Cont'd)

# 7.2.3 <u>Service Designator/Network Channel Code Conversion Table</u> (Cont'd)

Service Designator	Network Channel
Code	Code
TV1	TV
TV2	TW
WA1	WJ
WA1T	WQ
WA2	WL
WA2A	WR
WA3	WN
WA4	WP
DALS (Standard)	SE
DALS (Improved)	SF
WD1	WB
WD2	WE
WD3	WF
WD4	WH
DA1	XA
DA2	XB
DA3	XG
DA4	XH
SR1	RB
SR2	RC
SR3	RD
HC1	HC
HC1C	HD
HC2	HE
HC3	HF
HC4	HG

## 7. <u>Special Access Service</u> (Cont'd)

## 7.3 <u>Facility Interface Codes</u>

This section explains the facility interface codes set forth in 7.2.1 and 7.2.2 preceding that the IC can specify when ordering Special Access Service. Included is an example which explains the specific characters of the code, a glossary of facility interface codes and impedance levels.

<u>Example:</u> If the IC specifies a 2DC8-3 facility interface at the IC terminal location, it is requesting the following:

2 = Number of physical wires at IC terminal location. DC = Facility interface for direct current or voltage

8 = Variable impedance level

3 = Metallic facilities (DC continuity) for direct current/low frequency

control signals or slow speed data (30 baud)

# 7.3.1 Glossary of Facility Interface Codes and Options

Code	Option	<u>Definition</u>
AB-		accepts 20 Hz ringing signal at IC point of interface
AC-		accepts 20 Hz ringing signal at end user network interface
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)
DA -		data stream in VF frequency band at end user network interface
DB -		data stream in VF frequency band at IC point of interface location
	- 10	VF for NBB4 and NB5
	- 43	VF for 43 Telegraph Carrier type signals, NB4 and NB5
DC -		direct current or voltage
	- 1	monitoring interface with series RC combination (McCulloh format)
	- 2	Telephone Company energized alarm channel
	- 3	Metallic facilities (DC continuity) for direct current/low frequency
		control signals or slow speed data (30 baud)
DD -		DATAPHONE Select-A-Station (and TABS) interface at IC point of interface
DE -		DATAPHONE Select-A-Station (and TABS) interface at the end user NI
DO -		digital interface at IC terminal location at the digital signal level zero A (DS-OA)

# 7. <u>Special Access Service</u> (Cont'd)

# 7.3 <u>Facility Interface Codes</u> (Cont'd)

# 7.3.1 Glossary of Facility Interface Codes and Options

Code	Option	<u>Definition</u>
DS -		digital hierarchy interface
	- 15	1.544 Mbps (DS1) format per PUB41451 plus D4
	- 15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	- 15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	- 15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	- 15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	- 15J	1.544 Mbps format per PUB 41451
	- 15K	1.544 Mbps format per PUB 41451 plus extended framing format
	- 15L	1.544 Mbps (DS1) with SF signaling
	- 27	274.176 Mbps (DS4)
	- 27L	274.176 Mbps (DS4) with SF signaling
	- 31	3.152 Mbps (DS1C)
	- 31L	3.152 Mbps (DS1C) with SF signaling
	- 44	44.736 Mbps (DS3)
	- 44L	44.736 Mbps (DS3) with SF signaling
	- 63	6.313 Mbps (DS2)
	- 63L	6.312 Mbps (DS2) with SF signaling
DU -		digital access interface
	- 24	2.4 kbps
	- 48	4.8 kbps
	- 56	56kbps
	- 96	9.6 kbps
	- A	1.544 Mbps format per PUB 41451
	- B	1.544 Mbps format per PUB 41451 plus D4
D.11	- C	1.544 Mbps format per PUB 41451 plus extended framing format
DX -		duplex signaling interface at IC POI
DY -	_	duplex signaling interface at end user NI
EA -	E	Type I E&M Lead Signaling. IC at POI or end user at NI originates on E Lead.
EA -	M	Type I E&M Lead Signaling. IC at POI or end user at NI originates on M Lead.
EB -	E	Type II E&M Lead Signaling. IC at POI or end user at NI originates on E Lead.
EB -	M	Type II E&M Lead Signaling. IC at POI or end user at NI originates on M Lead
EC -		Type III E&M Signaling at IC terminal POI tandem
EX -	A	channel unit signaling for loop start or ground start and IC supplies
EV	D	open end (disc tone, etc.) functions.
EX -	В	tandem channel unit signaling for loop start or ground start and IC
		supplies closed end (dial pulsing, etc.) functions.

# 7. <u>Special Access Service</u> (Cont'd)

# 7.3 <u>Facility Interface Codes</u> (Cont'd)

# 7.3.1 Glossary of Facility Interface Codes and Options

Code	Option	<u>Definition</u>
GO -		ground start loop signaling - open end function by IC or end user
GS -		ground start loop signaling - closed end function by IC or end user
IA -		E.I.A. (25 pin (RS-232)
LA -		end user loop start 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 IC or end user
LR -		20 Hz automatic ringdown interface at IC with Telephone Company
		provided PLAR
LS -		loop start loop signaling - closed end function by IC or end user
NO -		no signaling interface, transmission only
PG -		program transmission - no DC signaling
	1	nominal frequency from 50 to 15,000 Hz
	3	nominal frequency from 200 to 3,500 Hz
	5	nominal frequency from 100 to 5,000 Hz
	8	nominal frequency from 50 to 8,000 Hz
RV -	0	reverse battery signaling, one way operation, originate by IC
	T	reverse battery signaling, one way operation, terminate function by IC
		or end user
SF -		single frequency signaling with VF band at either IC POI or end user NI
TF -		telephotograph interface
TT -		telegraph/teletypewriter interface at either IC POI or end user NI
	2	20.0 milliamperes
	3	3.0 milliamperes
	6	62.5 milliamperes
WA -		wideband bandwidth interface at end user NI
	1	limited bandwidth
	2	nominal passband from 29,000 to 44,000 Hz

# 7. <u>Special Access Service</u> (Cont'd)

# 7.3 <u>Facility Interface Codes</u> (Cont'd)

# 7.3.1 Glossary of Facility Interface Codes and Options (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
WB -		wideband data interface at IC POI
	18S	18.75 kbps, synchronous
	19A	up to 19.2 kbps asynchronous
	19S	19.2 kbps synchronous
	23A	up to 230.4 kbps, asynchronous
	23S	230.4 kbps, synchronous
	40S	40.8 kbps, synchronous
	50A	up to 50.0 kbps, asynchronous
	50S	50.0 kbps, synchronous
	64	64.0 kbps, restored polar
WC -		wideband data interface at end user NI
	18	18.75 kbps, synchronous
	19	for 12-wire interface: 19.2 kbps, synchronous for 10-wire interface:
		up to 19.2 kbps, asynchronous
	23	up to 230.4 kbps, asynchronous
	23S	230.4 kbps, synchronous
	40	40.8 kbps, synchronous
	50	for 12-wire interface: 50.0 kbps, synchronous for 10-wire interface:
		up to 50.0 kbps, asynchronous
WD -		wideband bandwidth interface at IC POI
	1	nominal passband from 300 to 18,000 Hz
	2	nominal passband from 28,000 to 44,000 Hz
	3	nominal passband from 29,000 to 44,000 Hz

## 7. <u>Special Access Service</u> (Cont'd)

## 7.3 <u>Facility Interface Codes</u> (Cont'd)

# 7.3.2 <u>Impedance</u>

The nominal reference impedance with which the IC or end user will terminate the channel for the purpose of evaluation transmission performance:

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3 {1}
1200	4
135	5
75	6
124	7
Variable	8
100	9

## 7.3.3 Digital Hierarchy Facility Interface Codes (4DS9- {1})

This facility interface is available only to IC's that select the multiplexed four-wire DSX-1 or higher facility interface option at the IC terminal location and provide subsequent system and channel assignment data. The various digital bit rates in the digital hierarchy employ the facility interface code 4DS9 plus the speed options indicated below:

Interface Code And Speed Option	Nominal Bit Rate (Mbps)	Digital Hierarchy Level
	<del></del>	
4DS9-15	1.544	DS1
4DS9-15L	1.544	DS1
4DS9-31	3.152	DS1C
4DS9-31L	3.152	DS1C
4DS0-63	6.312	DS2
4DS0-63L	6.312	DS2
4DS6-44	44.736	DS3
4DS6-44L	44.736	DS3
4DS6-27	274.176	DS4
4DS6-27L	274.176	DS4

For those interface codes with a 4-wire transmission path at the POI at the IC's terminal location, rather than a standard 900 ohm impedance the code (3) denotes an IC provided transmission equipment termination. Such terminations were provided to ICs in accordance with the F.C.C. Docket No. 20099 Settlement Agreement.

## 7. <u>Special Access Service</u> (Cont'd)

#### 7.4 Rate Regulations

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

#### 7.4.1 Types of Rates and Charges

There are two types of rates and charges. These are monthly recurring rates and nonrecurring charges. In addition, there are three types of nonrecurring charges. The rates and charges are described as follows:

#### (A) <u>Monthly Rates</u>

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

## (B) <u>Nonrecurring Charges</u>

Nonrecurring charges are one-time charges that apply for a specific work activity (i.e., installation or change to an existing service). The three types of nonrecurring charges that apply for Special Access Service are: installation of service, installation of feature(s) and function(s), and service rearrangements.

### (1) <u>Installation of Service</u>

Nonrecurring charges apply to each service installed. When multiple identical services (i.e., services between the same locations and for the same customer) are ordered and installed at the same time, there is a charge for the first service installed and a lower charge for each additional identical service installed. Nonrecurring charges for the installation of all services apply per service termination (i.e., IC terminal location and end user premises). The nonrecurring charges for these services are set forth in the rate schedule with the facility interface combinations in Section 17.3.3 following.

In addition, there is a separately stated nonrecurring charge associated with the installation of Voice Grade Service (i.e., VG1-13) which varies by the specific performance desired (e.g., VG2, VG3, etc.). These nonrecurring charges, which apply per two-point service or each section of a multipoint service, are set forth in the rate schedule in Section 17.3.3 following.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.1 Types of Rates and Charges (Cont'd)

## (B) <u>Nonrecurring Charges</u> (Cont'd)

#### (2) <u>Installation of Features and Functions</u>

Nonrecurring charges apply for the installation of the various features and functions available with Special Access Service. For some features and functions there is a lower charge if installed coincident with the service and a higher charge if installed subsequent to the installation of the service.

### (3) <u>Service Rearrangements</u>

Nonrecurring charges apply for service rearrangements. Service rearrangements are changes to existing services that do not result in a change to any of the following: (1) address of the IC terminal location, (2) address of the end users premises or (3) type of service. Changes of this nature constitute a discontinuance and start of service

Service Rearrangement Charges are based on the nonrecurring (i.e., installation) charge of the service being changed. Following are the service rearrangements that are allowable for Special Access Service and the appropriate levels of charging.

Type of Charge	Level of Charging
Change from two-wire to four-wire or from-four-wire to two-wire	Full nonrecurring charge associated with the facility interface combination for the service being changed
Change in facility interface that does not result in a change to any other rate element (e.g., 2LS2 to 2GS2)	1/2 of the nonrecurring charge associated with the facility interface combination for the service being changed
Change in facility interface that results in changes to other rate element(s) (e.g., 4GS2 to 4DS9-15)	Full nonrecurring charge associated with the facility interface combination for the service being changed

## 7. <u>Special Access Service</u> (Cont'd)

#### 7.4 Rate Regulations (Cont'd)

## 7.4.1 Types of Rates and Charges (Cont'd)

- (B) <u>Nonrecurring Charges</u> (Cont'd)
  - (3) Service Rearrangements (Cont'd)

In cases where multiple service rearrangements or a move and a service rearrangement are requested on a single order, the total charge (i.e., the Service Rearrangement Charge or the Service Rearrangement Charge and the Move Charge) will never exceed the full nonrecurring charge for the basic service.

#### 7.4.2 Surcharge for Special Access Service

#### (A) General

In addition to the rates and charges described in Section 7.4.1 preceding, there is a monthly surcharge of \$25.00 that applies to two-point Sub-voice grade, Voice grade and equivalent voice grade Special Access Services (e.g., the surcharge for a group level service would be \$300.00 or 12 x \$25.00). For multipoint services, the \$25.00 surcharge applies for each end user location on the service.

This surcharge compensates the Telephone Company for use of the local exchange network when Special Access Service is connected to a PBX or equivalent device which is capable of interconnecting the Special Access Services with local exchange service. The Telephone Company will automatically bill the appropriate surcharge on each Special Access Service installed irrespective of whether the interconnection capability exists in the customer's premises equipment or in a Centrex-CO type switch unless the service is exempt from the surcharge as set forth in (B) following.

#### (B) Exceptions to the Surcharge Application

There are two means by which the customer may be exempted from the monthly surcharge. First, if the customer certifies that the Special Access Service is terminated in a device not capable of interconnecting the service with local exchange service, no surcharge will apply. Second, if the customer certifies that the Special Access Service is associated with a Switched Access Service in the same LATA that is subject to Carrier Common Line Charges, no surcharge will apply.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.4 Rate Regulations (Cont'd)

## 7.4.2 <u>Surcharge for Special Access Service</u> (Cont'd)

#### (C) <u>Certification</u>

The certification will be in the form of a written notification to the Telephone Company. The notification may be provided; (1) at the time the service is ordered or (2) at such time as the service is reterminated to a device not capable of interconnecting to the local exchange network or (3) at such time as the Special Access Service becomes associated with a Switched Access Service that is subject to Carrier Common Line Charges.

If a written certification is not received at the time an order for service is placed, the surcharge will be applied. Exempt status will become effective on the date certification is received by the Telephone Company. {1}

#### (D) <u>Crediting the Surcharge</u>

The Telephone Company will cease billing the surcharge when certification that the service has become exempt from the surcharge as set forth in (C) preceding is received. If the status of the service was changed prior to receipt of the exemption certification, the Telephone Company will credit the customer's account based on the effective date of the change specified by the customer in the letter of certification.

### 7.4.3 Minimum Periods

Special Access Service is provided for a minimum period of one month. An exception to the minimum period exists for part-time and occasional Video and Program Audio Services which may be ordered and paid for on a daily basis.

For services which were installed prior to June 1, 1984, and where the certification is received no later than December 31, 1984, the effective date may be made retroactive to a date no earlier than June 1, 1984.

# 7. <u>Special Access Service</u> (Cont'd)

## 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.4 <u>Moves</u>

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

- The point of interface at the IC terminal location
- The IC terminal location
  - The network interface at the end user premises
  - The end user 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) <u>Moves Within the Same Building</u>

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected, i.e., the IC terminal location or the end user premises. There will be no change in the minimum period requirements. If a move is made at the same time a service rearrangement is made, the total charge will never exceed a full nonrecurring charge of the basic service.

## (B) To a Different Building

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

# 7. <u>Special Access Service</u> (Cont'd)

#### 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.5 Rate Application Exception Rules

#### (A) <u>Intrabuilding Access Services</u>

Intrabuilding cable facilities, provided by the Telephone Company to connect two IC terminal locations or an IC terminal location and an end user premises in the same public building, will be rated as an Access Connection and an appropriate facility interface combination. The Channel Mileage and Special Access Line rate elements will not apply to this type of service.

#### (B) IC Terminal Location to IC Terminal Location

When two IC terminal locations are connected together via Special Access Service, the IC will be billed as though the service were connecting an IC terminal location and an end user premises, i.e., Access Connection, Channel Mileage, Features and Functions (facility interface combination) and Special Access Line. One of the IC terminal locations will be treated as an end user premises.

### (C) End User to End User

When two end user premises are connected together via Special Access Service, the IC will be billed as though the service were connecting an IC terminal location and an end user premises, i.e., Access Connection, Channel Mileage, Features and Functions (facility interface combination) and Special Access Line. The end user premises at which the service connects to intrastate service will be treated as an IC terminal location.

## 7. <u>Special Access Service</u> (Cont'd)

#### 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.6 <u>Mileage Measurement</u>

The mileage to be used to determine the monthly rate for the Channel Mileage is calculated on the airline distance between the serving wire centers involved (i.e., IC serving wire center, Hub serving wire center, or end user serving wire center). The V&H coordinates method is used to determine mileage. This method is explained in the NATIONAL EXCHANGE CARRIER ASSOCIATION Tariff F.C.C. NO. 4 Serving Wire Center Information (V & H Coordinates).

Mileage is shown in Section 17.3.2 following in terms of mileage bands. To determine the charges to be billed, first compute the mileage using the V&H coordinates method, then find the band into which the computed mileage falls and apply the rates shown for that band to the actual number of miles. There are two rates that apply for each mileage band, i.e., a fixed rate for the band and a rate per mile.

When more than one Exchange Telephone Company is involved, the application of the Channel Mileage rate will be as specified in Section 2.4.7 preceding.

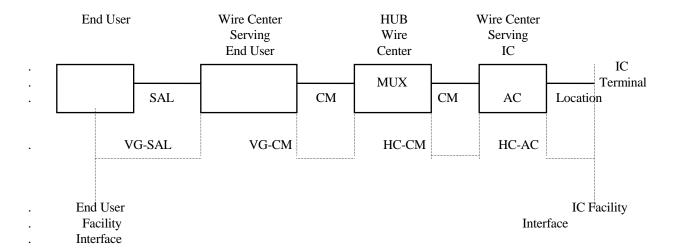
When Hubs are involved, mileage rates are computed separately for each section of the Channel Mileage, i.e., IC serving wire center to Hub, Hub to Hub, and/or Hub to end user serving wire center.

## 7. <u>Special Access Service</u> (Cont'd)

## 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.7 <u>Facility Hubs</u>

An IC has the option of ordering high capacity analog or digital facilities (i.e., Group, Supergroup, DS1, DS1C, DS2, DS3 or DS4) to a facility Hub for channelizing to individual services requiring lower capacity facilities (e.g., Voice, Program Audio, etc.).



AC - Access Connection MUX - Multiplexing Equipment

CM - Channel Mileage HC - High Capacity SAL - Special Access Line VG - Voice Grade

The Telephone Company will designate the facility Hub locations. 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. The IC will choose the desired Hub from a list that the Telephone Company will make available.

Some of the types of multiplexing provided include the following:

- from higher to lower bit rate

- from higher to lower bandwidth

- from digital to Voice Grade Service

- from digital to Program Audio Service

### 7. <u>Special Access Service</u> (Cont'd)

#### 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.7 Facility Hubs (Cont'd)

The transmission performance for the end to end service provided from the IC terminal location to the end user premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps service is multiplexed to voice frequency channels, the transmission performance will be voice grade, not high capacity.

The Telephone Company will commence billing the monthly rate for the Access Connection and the Channel Mileage for the high capacity facility to the Hub as soon as it is provided, even though individual services utilizing those facilities may not be ordered and installed until a later date. If the IC has designated the type of multiplexing to be provided, the nonrecurring charge for the multiplexer will be billed to the IC at that time and the billing for the monthly rate will begin.

Individual service rates (by service type) will apply for the facility interface combination, the Special Access Line, Special Access Service Surcharge, and additional Channel Mileage (if required) for each channelized service. These will be billed to the IC as each individual service is installed.

### 7.4.8 Shared Use Analog and Digital High Capacity Services

Shared use occurs when Special Access Service and Switched Access Service are provided over the same Wideband Analog or High Capacity facilities through a common interface. The facility will be ordered and rated as Special Access Service until such time as the customer chooses to use a portion of the available capacity for providing Switched Access Service. At that time the customer must place an order for Switched Access Service, designating a specific channel assignment for the service. As each individual channel is activated for Switched Access Service, the Special Access rates will be reduced accordingly (e.g., 1/12th for a group level services, 1/24th for a DS1 service, etc.).

7. <u>Special Access Service</u> (	Cont	<b>'d</b> )
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## 7.4 <u>Rate Regulations</u> (Cont'd)

## 7.4.9 <u>Features and Functions</u>

## (A) Optional Features and Functions

#### (1) <u>Voice Grade Services</u>

#### (a) Conditioning:

Conditioning provides more specific transmission characteristics for data or telephoto services. There are two types of data conditioning, C-Type and DA-Type. C-Type conditioning controls attenuation distortion and envelope delay distortion; DA-Type conditioning controls the signal to C-notched noise ratio and intermodulation distortion. Telephoto conditioning controls attenuation distortion and envelope delay distortion.

Conditioning is charged for on a per two-point service or each section (i.e., mid link or end link. The parameters listed for each type of conditioning apply from point of interface to network interface. For two-point services, the parameters apply to each service. For multipoint services, the parameters apply to any path between any two service terminal points. C-Type and DA-Type conditioning are available only for data services. C-Type and DA-Type conditioning may be combined on the same service.

#### (1) C-Type Conditioning

For the additional control of attenuation distortion and envelope delay distortion on data services.

Attenuation Distortion (Frequency Response) Relative to 1004 Hz

Frequency Range (Hz)	Variation (db)
400 - 2800	-1.0 to +2.0
300 - 3000	-1.0  to  +3.0
300 - 3200	-2.0 to $+6.0$

- 7. Special Access Service (Cont'd)
- 7.4 <u>Rate Regulations</u> (Cont'd)
- 7.4.9 <u>Features and Functions (Cont'd)</u>
- (A) Optional Features and Functions (Cont'd)
- (1) <u>Voice Grade Services</u> (Cont'd)
- (a) <u>Conditioning:</u> (Cont'd)
- (1) <u>C-Type Conditioning</u> (Cont'd)

Envelope Delay Distortion						
Frequency Range (Hz)	Variation (microseconds)					
1000 - 2600	100					
800 - 2600	200					
600 - 2600	300					
500 - 2800	600					
500 - 3000	3000					
(available with VG5-10)						

See Section 17.3.3(D)(1)(a)(1) for Rates and Charges.

(2) <u>DA-Type Conditioning:</u>

For the control of signal to C-notched noise ratio and intermodulation distortion on data services. DA type conditioning is available for two-point services or three-point multi-point services.

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7.	Special Access Service (Cont'd)							
	7.4	Rate R	te Regulations (Cont'd)					
		7.4.9	<u>Featur</u>	<u>Features and Functions</u> (Cont'd)				
			(A)	Option	al Feature	es and Fu	nctions (Cont'd)	
				(1)	Voice (	Grade Sei	rvices (Cont'd)	
					(a)	Condit	ioning: (Cont'd)	
						(2)	DA-Type Conditioning: (Cont'd)	
							The signal to C-notched noise ratio and intermodulation distortion parameters for DA-Type conditioning are:	
							<ul> <li>Signal to C-Notched Noise Ratio is equal to or greater than 32dB.</li> <li>Intermodulation distortion:</li> <li>Signal to second order modulation products (R2) is equal to or greater than 38 dB.</li> <li>Signal to third order modulation products (R3) is equal to or greater than 42 dB.</li> </ul>	
							When a service equipped with DA type conditioning is used for voice communications the quality of the voice transmission may not be satisfactory. (available with VG6, 7, 10)	
							See Section 17.3.3(D)(1)(a)(2) for Rates and Charges.	
					(b)	user pr E&M, Improv Perforr	red Return Loss for effective two-wire transmission at the end remises. This option is applicable to all interfaces except SF & DX when the impedance code 2 is specified. The red Return Loss parameters are set forth in the Transmission mance descriptions of the services with which this option is ale. (available with VG2, 3, 7)	
						See See	ction 17.3.3(D)(1)(b) for Rates and Charges.	

7.	Special Access Service (Cont'd)							
	7.4	Rate R	Rate Regulations (Cont'd)					
		7.4.9	Featur	es and F	unctions	(Cont'd)		
			(A)	Optiona	al Feature	es and Functions (Cont'd)		
				(1)	Voice (	Grade Services (Cont'd)		
					(c)	Improved Return Loss at four-wire point of interface, applicable to each two-wire leg. The Improved Return Loss parameters are set forth in the Transmission Performance descriptions of the services with which this option is available. (available with VG1-3, 5-10)		
						See Section 17.3.3(D)(1)(c) for Rates and Charges.		
					(d)	IC specified end user premises receive level within a range acceptable to the Telephone Company on effective four-wire transmission. (available with VG2, 3, 7, 8 & 9)		
						See Section 17.3.3(D)(1)(d) for Rates and Charges.		
				(2)	Program	m Audio Services		
·					(a)	Gain Conditioning: Control of 1004 Hz AML at initiation of service to 0 dB + 0.5 dB. (available with AP1-11)		
						See Section 17.3.3(D)(2)(a) for Rates and Charges.		
					(b)	Stereo - provision of a pair of gain/phase equalized channels for stereo applications. (additional AP channel must be ordered separately). (available with AP4)		
						See Section 17.3.3(D)(2)(b) for Rates and Charges.		

- 7. <u>Special Access Service</u> (Cont'd)
- 7.4 <u>Rate Regulations</u> (Cont'd)
  - 7.4.9 Features and Functions (Cont'd)
- (A) Optional Features and Functions (Cont'd)
- (3) <u>Digital Data Access Services</u>

Loop Transfer Arrangement - an arrangement that affords the end user an additional measure of protection to its access channel(s) on a 1xN basis. This arrangement is only available from a Telephone Company designated digital hub. A key activated control service is required to operate the transfer arrangement. This control service must be separately ordered from the appropriate Telephone Company Intra-LATA tariff. (available with DA1, 2, 3 & 4)

See Section 17.3.3(D)(3) for Rates and Charges.

- (4) <u>High Capacity Services</u>
  - (a) Automatic Protection Switching: Switching equipment placed at both ends of a duplicate stand-by service to automatically switch the standby service to the active state in the event of service failure. Duplicate 1.544 Mbps Service must also be ordered.

See Section 17.3.3(D)(4) for Rates and Charges.

- 7.4.10 Special Access Lines
- Optional Feature
- . Hybrid:
- Provides conversion from 4-wire SAL to 2-wire termination at end user premises. Required to meet effective four-wire performance with a 2-wire end user premises facility interface.
- See Section 17.3.4 for Rates and Charges.

{1} See Section 7.4.2 preceding for application of Special Access Service Surcharge.

8. Reserved for Future Use

### 9. Directory Assistance Service

The Telephone Company will provide Directory Assistance (DA) Service to a customer from Directory Assistance Service locations (DA location). DA locations are either primary or subtending. Primary DA locations are those to which terminating DA calls for the NPA first complete. Primary DA location either process the telephone number request or, if necessary, forward the call to a subtending DA location for processing. DA service rates are assessed by the primary DA location only. Subtending DA locations are compensated by contractual arrangements between Telephone Companies.

#### 9.1 General Description

Telephone Company provided DA Service is available to customers for their use in furnishing DA services to end users. It provides for the use of Directory Access Service between the premises of the ordering customer and the DA location(s), use of DA access equipment, and use of DA operators to provide telephone numbers.

Directory Access Service will be provided between the customer designated premises and the DA location by the Telephone Company. Rates and charges for Directory Assistance Service are set forth in 17.2.4 following.

## 9.1.1 <u>Description and Provision of Directory Assistance Service</u>

A Telephone Company DA operator, when furnished a name and locality, will provide or attempt to provide the telephone number listed in the Telephone Company DA records associated with the name given, at the rates and charges as set forth in 17.2.4 following. The Telephone Company's contact with the customer's end user shall be limited to that effort necessary to process a customer's end user's request for a telephone number; and the Telephone Company will not transfer, forward or redial a customer's end user call to any other location for any purpose other than provision of DA Service.

Each Directory Access Service will consist of the following:

- An Interface Group equipped with an available Premises Interface as set forth in 15.3.1 following at the customer's designated premises.
- Directory Transport between the premises of the ordering customer and the DA location.

# 9. <u>Directory Assistance Service</u> (Cont'd)

#### 9.1 General Description (Cont'd)

### 9.1.1 <u>Description and Provision of Directory Assistance Service</u> (Cont'd)

When required by the Telephone Company, a separate Directory Access Service trunk group will be provided for DA Service for each NPA. Separate trunk groups will be required when the Telephone Company notifies the customer that the mechanized search of its data base and its mechanized operator practices require a mechanized identification of the NPA code for which the customer's end user desires DA information.

Further, when an access tandem is available and is provided, the Directory Access Service will be provided, at customer choice:

- as a separate Directory Access Service trunk group, or
- in combination with Feature Group B, C or D Switched Access Service.

## 9.1.2 Ordering Options and Conditions

#### (A) Ordering

Except as set forth following, Directory Assistance Service provided under a Special Order is subject to the ordering conditions as set forth in Section 5. preceding. The customer shall determine and order the busy hour minutes of capacity and interface type of Directory Access Services it needs for DA Service.

When DA Service is initially ordered, the customer shall order the service for at least six months. Thereafter, additional service may be ordered for a minimum of six months. Not later than three months prior to the end of the six month period, the customer shall notify the Telephone Company if the service is to be discontinued at the end of the six month period. If no notice is received from the customer, the Telephone Company will automatically extend the service for another six months and all appropriate charges as set forth in 17.2.4 following will apply for another six months.

## (B) <u>Cancellation of a Special Order</u>

A customer may cancel a Special Order for DA 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 Special Order is to be cancelled. The verbal notice must be followed by written confirmation within 10 days.

## 9. <u>Directory Assistance Service</u> (Cont'd)

#### 9.1 General Description (Cont'd)

## 9.1.2 Ordering Options and Conditions (Cont'd)

#### (B) <u>Cancellation of a Special Order</u> (Cont'd)

When a customer cancels a Special Order for DA Service after the order date but prior to the start of service, the appropriate application of charges as set forth in Section 5. preceding apply for the Directory Access Service cancelled. In addition, a charge equal to any unrecoverable capital costs incurred by the Telephone Company will apply to the customer.

### (C) Changes to Special Orders

When a customer requests changes to a pending order for DA Service, such changes will be undertaken if they can be accommodated by the Telephone Company. The appropriate application of charges as set forth in Section 5. preceding apply for the Directory Access Service changed. In addition, a charge equal to any other costs incurred by the Telephone Company because of the change will apply.

### 9.1.3 Rate Categories

There are two rate categories which apply to Directory Assistance Service:

- Directory Assistance Service Call
- Directory Transport Service

#### (A) <u>Directory Assistance Service Call</u>

The Directory Assistance Service Call rate category provides for the use of general DA Services such as operators and DA access equipment necessary to provide DA Service to a customer.

## (B) <u>Directory Transport Service</u>

Directory Transport Service provides the transmission facilities and transport termination between the premises of the ordering customer and the DA location. For purposes of determining Directory Transport Mileage, distance will be measured from the wire center that normally serves the customer premises to the DA location(s).

Directory Transport is a two-way voice frequency transmission path composed of Switched Access Local Transport facilities as set forth in 6.1.3 preceding. The two-way voice frequency path transports calls in the terminating direction (from the premises of the ordering customer to the DA location). The following rate elements, which are more fully described in 6.1.3(A) preceding, are applicable.

# 9. <u>Directory Assistance Service</u> (Cont'd)

#### 9.1 General Description (Cont'd)

## 9.1.3 Rate Categories (Cont'd)

#### (B) <u>Directory Transport Service</u> (Cont'd)

- <u>Entrance Facility</u> for the transport of the DA call from the customer's premises to the serving wire center of that premises.
- <u>Direct Trunked Transport</u> (i.e., Direct Trunked Facility and Direct Trunked Termination) for the transport of the DA call from the customer's serving wire center to the DA location without switching at a tandem or from the serving wire center to the tandem.
- Tandem Switched Transport (i.e., Tandem Switched Facility, Tandem Switched Termination, and Tandem Switching) for the transport of the DA call from the customer's serving wire center to the DA location with switching at a tandem, or from the tandem to the DA location.
- <u>Residual Interconnection Charge</u> for the Local Transport costs that are not recovered by the Entrance Facility, Direct Trunked Transport, Tandem Switched Transport, Multiplexing, or dedicated signaling (i.e., SS7) rates.
- Multiplexing DS3 to DS1 Multiplexing charges apply when a High Capacity DS3
   Entrance Facility or Direct Trunked Facility is connected with High Capacity DS1
   Direct Trunked Transport. The DS3 to DS1 multiplexer will convert a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

DS1 to Voice Grade Multiplexing charges apply when a High Capacity DS1 Entrance Facility or Direct Trunked Facility is connected with Voice Grade Direct Trunked Transport. A DS1 to Voice Grade Multiplexing charge does not apply when a High Capacity DS1 Direct Trunked Facility is terminated at an electronic end office and only Switched Access Service is provided over the DS1 facility (i.e., Voice Grade Special Access channels are not derived). The DS1 to voice multiplexer will convert a 1.544 Mbps channel to 24 Voice Grade channels.

Multiplexing is only available at wire centers identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4, WIRE CENTER INFORMATION.

## 9. <u>Directory Assistance Service</u> (Cont'd)

#### 9.1 <u>General Description</u> (Cont'd)

## 9.1.3 Rate Categories (Cont'd)

#### (B) <u>Directory Transport Service</u> (Cont'd)

The customer will specify whether the Directory Access Service is to be routed directly to a DA location or through an access tandem switch appropriately equipped for DA measurement and served by DA trunks to the DA location when such an access tandem switch is available. The combination of Feature Group B, C or D Switched Access Service with DA Service will only be provided at such available and appropriately equipped access tandem switches.

When Directory Transport is provided using a Direct Trunked Transport to the DA location, no address signaling is provided. When Directory Transport is provided with the use of an access tandem switch, wink start-start pulsing signaling is provided at the access tandem switch. When access tandem routing is provided, the customer shall address each call to the DA location using NPA + 555 + 1212 or when required by the Telephone Company, 555-1212. Only NPA codes handled by the DA location served by the access tandem switch will be processed.

Directory Transport is provided with one of the Local Transport Interface Groups as set forth in 15.1.1 following.

## 9.1.4 **Special Facilities Routing**

A customer may request that Directory Access Service be provided via Special Facilities Routing. The regulations, rates and charges for Special Facility Routing (Avoidance, Diversity and Cable Only) are as set forth in 11. following.

#### 9.1.5 Design Layout Report

The Telephone Company will provide to the customer the makeup of the facilities and services provided under this section as Directory Access Service. This information will be provided in the form of a Design Layout Report similar to that set forth in 6.1.5 preceding. Design Layout Reports for Directory Access Service will be provided only when specifically requested by the customer. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever the facilities provided for the customer's use are materially changed.

#### 9. **Directory Assistance Service (Cont'd)**

#### 9.2 **Undertaking of the Telephone Company**

#### 9.2.1 **Number of Telephone Number Requests**

A maximum of two (2) requests for telephone numbers will be accepted per call to Directory Assistance and DA operators will not transfer, forward or redial the call to another location for any purpose other than the provision of DA Service.

#### 9.2.2 **Telephone Number Availability**

A telephone number which is not listed in DA records will not be available to the customer's end user.

#### 9.2.3 **Selection of DA Locations**

The Telephone Company will specify the DA location which provides the DA Service for each numbering plan area code (NPA). The DA locations are as shown in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4.

When it becomes necessary to change a DA location, as determined by the Telephone Company, the Telephone Company will notify the involved customers six months prior to the change. For such changes, the regulations as set forth in 2.1.7 preceding apply.

#### 9.2.4 **Transmission Specifications**

Each Directory Assistance Service transmission path is provided with standard transmission specifications, either Type A or B, as set forth respectively in 15.1.2(E) and (F) following. The specifications associated with the parameters are guaranteed to the DA location. The standard for a particular transmission path is dependent upon the following:

- Whether Directory Access Service is provided in combination with Feature Group B, C or D Switched Access Service, or
- When not provided in combination with Switched Access Service, whether routed direct or via an access tandem switch.

The available transmission specifications are set forth in 15.3.2 following.

# 9. <u>Directory Assistance Service</u> (Cont'd)

### 9.2 <u>Undertaking of the Telephone Company</u> (Cont'd)

# 9.2.5 <u>Testing</u>

### (A) Acceptance Testing

The acceptance testing capabilities for Directory Access Service traffic routed through an access tandem are the same as those for the associated Feature Group C or D end office switching. The acceptance testing for Directory Access Service traffic routed directly, or routed in separate trunk groups through an access tandem to the DA location will be the same as that for Switched Access Service as set forth in 6.2.4 preceding.

## (B) Routine Testing

Routine testing capabilities for Directory Access Service traffic routed through an access tandem are the same as those for the associated Feature Group C or D end office switching. Routine testing capabilities for Directory Access Service traffic routed directly, or routed in a separate trunk group through an access tandem, to the DA location, will be as set forth in 13.3.1(A)(3) following (Additional Manual Testing).

### 9.2.6 Determination of Number of Transmission Paths

The number of Directory Transport transmission paths provided is based on the customer's order and is determined by the Telephone Company in a manner similar to Switched Access Service transmission paths as set forth in 6.2.5 preceding.

# 9.2.7 **Supervisory Signaling**

Trunk side switching is provided at the DA Service access location. The DA Service access location will provide trunk answer and disconnect supervisory signaling.

# 9. <u>Directory Assistance Service</u> (Cont'd)

# 9.3 Obligations of the Customer

In addition to the obligations of the customer as set forth in Section 2. preceding, the customer has certain specific obligations concerning the use of Directory Assistance Service. These obligations are as follows:

# 9.3.1 <u>Jurisdictional Reports</u>

Directory Transport may, at the option of the customer, be provided for both interstate and intrastate communications. When the customer requests such mixed access, the intrastate Directory Transport charges will be determined by the Telephone Company using the data furnished by the customer as set forth in 2.3.11 preceding.

# 9.3.2 Supervisory Signaling

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

# 9.3.3 Ordering of Separate Trunk Groups

When requested by the Telephone Company, the customer shall order a separate trunk group for DA Service for each NPA. The conditions when the customer will be requested to order separate trunk groups for each NPA are set forth in 9.1.1 preceding.

# 9.3.4 Notice of Discontinuance of Service

DA Service is ordered and renewed for a minimum period of six months at a time, as set forth in 9.1.2(A) preceding. Not later than three months prior to the end of any six month period, the customer shall notify the Telephone Company if the service is to be discontinued at the end of that period.

# 9. <u>Directory Assistance Service</u> (Cont'd)

### 9.4 Rate Regulations

This section contains the specific regulations governing rates and charges that apply for Directory Assistance Service.

### 9.4.1 Nonrecurring Charges

Nonrecurring charges for DA Service are one-time charges that apply for a specific work activity (i.e., installation, change to an existing service and DA Service rearrangements).

# (A) <u>Installation of Service</u>

Nonrecurring Local Transport Installation and Direct Trunked Transport Activation charges as set forth in 17.1 following are applied as set forth in 6.4.1(B)(1) preceding to each Directory Access Service installed.

### (B) DA Service Rearrangements

All changes to existing services other than changes involving administrative activities will be treated as a discontinuance of the existing service and an installation of a new service.

### 9.4.2 Directory Assistance Service Call Charge

The Directory Assistance service call charge, as set forth in 17.2.4 following, applies for each call to DA Service. A call is a call which has been answered by a DA operator. The charge applies whether or not the DA operator provides the requested telephone number. The number of calls answered by DA operators will be accumulated by Telephone Company measuring equipment. A credit for the provision of an incorrect telephone number will be applied as set forth in 9.4.8 following.

### 9.4.3 <u>Directory Transport Service</u>

The premium Local Transport charges set forth in 17.2.2 following are also applicable to Directory Transport Service and will be assessed on the same basis as the Switched Access Local Transport rate elements set forth in 6.1.3(A) preceding:

- Entrance Facility
- Direct Trunked Transport
- Tandem Switched Transport
- Multiplexing
- Residual Interconnection Charge

# 9. <u>Directory Assistance Service</u> (Cont'd)

### 9.4 Rate Regulations (Cont'd)

# 9.4.4 <u>Minimum Periods</u>

The minimum period for which DA Service and the Directory Access Service is provided and for which charges apply is six months. A minimum period of six months applies for each additional period of service ordered or extended.

If DA Service is discontinued prior to the end of each six month period, the charges that apply for the remaining months are the non-recoverable costs. Such costs include the non-recoverable cost of equipment and material ordered, provided or used, plus the non-recoverable cost of installation and removal including the costs of engineering, labor supervision, transportation, rights-of-way and other associated costs less estimated net salvage.

The minimum period for which High Capacity DS3 Entrance Facilities or High Capacity DS3 Direct Trunked Transport is provided is twelve months.

# 9.4.5 Minimum Monthly Charge

DA service is subject to a minimum monthly charge. The minimum monthly charge is calculated as follows:

The minimum monthly charge for Directory Assistance Service calls is the charge as set forth in 17.2.4 following for the actual usage for the month.

For the Directory Transport rate element, the minimum monthly charge the customer will be assessed will be the usage charges based on actual usage. For flat rated Directory Transport rate elements, the minimum monthly charge is the sum of the recurring charges prorated to the number of days or major fraction of days based on a 30 day month. Rates for Directory Transport are set forth in 17.2.2 following.

### 9.4.6 DA Service Rearrangements

Nonrecurring charges apply for service rearrangements. Service rearrangements and the regulations concerning the application of associated nonrecurring charges are as set forth in 6.4.1(B)(3) preceding.

# 9. <u>Directory Assistance Service</u> (Cont'd)

### 9.4 Rate Regulations (Cont'd)

# 9.4.7 **Moves**

A move involves a change in the physical location of the point of termination at the customer designated premises or of the customer designated premises. Moves will be treated as set forth in 6.4.4 preceding and all associated nonrecurring charges will apply. Minimum period requirements will be established at the new location as set forth in 6.4.4 preceding. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

# 9.4.8 <u>Credit Allowance for Service Outages and Incorrect Numbers</u>

- (A) When the DA location or DA operator equipment or terminals are out of service due to a Telephone Company equipment failure a credit allowance is provided. When an incorrect number is provided and a customer DA call has been answered by a DA operator, a credit allowance is provided. The credit allowance provided is equal to the rate for a Directory Assistance Service Call as set forth in 17.2.4 following. The credit will be applied to the customer's charges.
- (B) In addition to the credit as set forth in (A) preceding, when a DA operator or DA equipment provides an incorrect number for a call and the customer reports such occurrences to the Telephone Company, a credit allowance for the Switched Access portion of the call in the originating LATA of such DA call will apply. The credit will be as set forth in (C) following. When the customer reports such a call and the number requested, the number provided and the reason the number provided is incorrect, the number of calls for which a credit will apply will be developed by the Telephone Company in cooperation with the customer.
- (C) When a DA call is not completed due to the failure of Directory Access Service to DA locations, DA access equipment or DA operator activities, a credit allowance for the Switched Access Service portion in the originating LATA of such DA call will apply. When the customer reports such a call and DA number dialed, time of the call and the date of the call, the number of calls for which a credit will apply will be developed by the Telephone Company in cooperation with the customer. The credit will be as set forth in 17.2.4 following. Credit allowances for other services interruptions will be provided as set forth in 2.4.4 preceding.

### 10. Special Federal Government Access Services

### 10.1 General

This section covers Special Access Services that are provided to a customer for use only by agencies or branches of the Federal Government and other users authorized by the Federal Government. Services provided to state emergency operations centers are included. These services provide for command and control communications, including communications for national security, emergency preparedness and presidential requirements. They are required to assure continuity of Government in emergency and crisis situations and to provide for national security.

Services for command and control communications and for national security and emergency preparedness sometimes require short notice and short duration service provisions. These provisions are especially needed to meet presidential requirements or in response to natural, man-made, or declared emergencies. Requirements of this type cannot be forecasted and are usually needed for a relatively short period. The provision of service under these conditions may require the availability of facilities, such as portable microwave equipment, which are provided on a temporary basis by the Telephone Company or customer.

### 10.2 Emergency Conditions

These services will be provided on the date requested or as soon as possible thereafter when the emergency falls into one of the following categories:

- State of crisis declared by the National Command Authorities (includes commitments made to the National Communications System in the "National Plan for Emergencies and Major Disasters").
- Efforts to protect endangered U.S. personnel or property both in the U.S. and abroad. (Includes space vehicle recovery and protection efforts.)
- Communications requirements resulting from hostile action, a major disaster or a major civil disturbance.
- The Director (Cabinet level) of a Federal department, Commander of a Unified/Specified Command, or head of a military department has certified that a communications requirement is so critical to the protection of life and property or to the National Defense that it must be processed immediately.
- Political unrest in foreign countries which affect the national interest.
- Presidential service.

# 10. Special Federal Government Access Services (Cont'd)

### 10.3 Facility Availability

In order to insure communications during periods of emergency, the Telephone Company will, within the limits of good management, make available the necessary facilities to restore service in the event of damage or to provide temporary emergency service.

In order to meet the requirements of agencies or branches of the Federal Government, the Telephone Company may utilize government-owned facilities, when necessary to provide service.

### 10.4 Federal Government Regulations

In accordance with Federal Government Regulations, all service provided to the Federal Government will be billed in arrears. However, this provision does not apply to other customers that obtain services under the provisions of this tariff to provide their services to the Federal Government.

# 10.5 Service Offerings to the Federal Government

The following unique services are provided to a customer for use only by agencies or branches of the Federal Government, other authorized users and state emergency operations centers. The rates and charges for these services shall be developed on an individual case basis and shall be consistent with the rates and charges for services offered in other sections of this tariff.

### 10.5.1 Type and Description

### (A) Voice Grade Special Access Services

### (1) Voice Grade Secure Communications Type I

Approximate bandwidth of 10-50,000 Hz. Furnished for two-point secure communications on two-wire or four-wire metallic facilities between a customer designated premises and an end user's premises. Services are conditioned as follows:

T-3 Conditioning - The absolute loss (referenced to 1 milliwatt) with respect to frequency shall not exceed:

15 dB at 10 Hz 13 dB at 100 Hz 9 dB at 1,000 Hz 20 dB at 10,000 Hz 30 dB at 50,000 Hz

# 10. Special Federal Government Access Services (Cont'd)

### 10.5 Service Offerings to the Federal Government (Cont'd)

# 10.5.1 Type and Description (Cont'd)

- (A) <u>Voice Grade Special Access Services</u> (Cont'd)
  - (1) <u>Voice Grade Secure Communications Type I Cont'd</u>)

Additional conditioning (available in one or two directions on four-wire facilities only) to provide the following characteristics:

The absolute loss (referenced to one milliwatt) with respect to frequency shall not exceed:

0 dB at 1,000 Hz ± 1 dB between 1,000 Hz and 40,000 Hz ± 2 dB between 10 Hz and 50,000 Hz (+ means more loss)

The net loss of the conditioned service (with or without additional conditioning) shall not vary by more than four dB at 1,000 Hz from the levels specified preceding. Voice frequency signaling or supervisory tones can be transmitted.

### (2) <u>Voice Grade Secure Communications Type II</u>

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between a customer designated premises and an end user's premises. Services are conditioned as follows:

G-1 Conditioning - The absolute loss with respect to frequency and the net loss variation shall be the same as Voice Grade Secure Communications Type I services without additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

### 10. Special Federal Government Access Services (Cont'd)

### 10.5 Service Offerings to the Federal Government (Cont'd)

# 10.5.1 Type and Description (Cont'd)

### (A) <u>Voice Grade Special Access Services</u> (Cont'd)

### (3) <u>Voice Grade Secure Communications Type III</u>

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between a customer designated premises and an end user's premises. Services are conditioned as follows:

G-2 Conditioning - The absolute loss with respect to frequency and the net loss variation from the customer designated premises to the end user's premises shall be the same as Voice Grade Secure Communications Type I services without additional conditioning; from the end user's premises to the customer designated premises shall be the same as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

### (4) Voice Grade Secure Communications Type IV

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communication between two customer designated premises. Services are conditioned as follows:

G-3 Conditioning - The absolute loss with respect to frequency and the net loss variation shall be the same in both directions of transmission as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

# (B) Wideband Digital Special Access Service

Service arrangements for secured communications to accommodate the transmission of binary digital baseband signals in a random polar format.

### (1) <u>Wideband Secure Communications Type I</u>

For transmission at the rate of 18,750 bits per second.

### 10. Special Federal Government Access Services (Cont'd)

### 10.5 Service Offerings to the Federal Government (Cont'd)

# 10.5.1 Type and Description (Cont'd)

### (B) Wideband Digital Special Access Service (Cont'd)

### (2) Wideband Secure Communications Type II

For transmission at the rate of 50,000 bits per second.

# (3) Wideband Secure Communications Type III

To accommodate the transmission of restored polar two-level facsimile signals with a minimum signal element width of twenty micro-seconds at a rate of 50,000 bits per second.

To accommodate the transmission of binary digital baseband signals in a random polar format at the rate of 50,000 bits per second.

# 10.5.2 Mileage Application

Mileage, when used for rate application between the serving wire centers of two customer designated premises, shall be determined by the V and H Coordinates Method as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. No. 4 and administered as set forth in 7.2.5 preceding.

### 10.6 Rates and Charges

## 10.6.1 General

The rates and charges for special offerings to the Federal Government, such as set forth in 10.5 preceding, are developed on an individual cases basis and are set forth in 17.6 following.

# 10.6.2 **Voice Grade Special Access**

The provision of T-3 and G conditioned services contemplates station and tandem switching operations, using customer provided equipment, as well as Special Access Service. Separate narrowband or voice grade services, where required by the customer provided equipment or switching operation, are furnished in accordance with the applicable sections of this tariff.

# 10. Special Federal Government Access Services (Cont'd)

# 10.6 Rates and Charges (Cont'd)

# 10.6.3 Move Charges (Cont'd)

- (A) When a service without a termination charge associated with that service, as set forth in 17.6 following, is moved to a different building, the nonrecurring charge applies; when moved to a new location in the same building, a charge of one-half of the nonrecurring charge applies.
- (B) When service with a termination charge associated with that service, as set forth in 17.6 following, is moved and reinstalled at a new location, the customer may elect:
  - to pay the unexpired portion of the termination charge for the service, if any, with the application of a nonrecurring charge and the establishment of a new termination charge for such service at the new location, or
  - to continue service subject to the unexpired portion of the termination charge, if
    any, and pay the estimated costs of moving such service, provided that the
    customer requests these charges be quoted prior to ordering the service move.
    Charges for moving such service will be based on estimated costs attributable to
    the move.

Move charges include the estimated costs of removal, restoration of services or facilities necessitated by the move, transportation, storage, reinstallation, engineering, labor, supervision, materials, administration, and any other specific items of cost directly attributable to the move.

# 11. Special Facilities Routing of Access Services

### 11.1 <u>Description</u>

The services provided under this tariff are provided over such routes and facilities as the Telephone Company may elect. Special Facilities Routing is involved when, in order to comply with requirements specified by the customer, the Telephone Company provides Switched Access Service, Special Access Service or Special Federal Government Access Service in a manner which includes one or more of the following conditions:

### 11.1.1 <u>Diversity</u>

Two or more circuits must be provided over not more than two different physical routes.

# 11.1.2 Avoidance

A circuit(s) must be provided on a route which avoids specified geographical locations.

### 11.1.3 Diversity and Avoidance Combined

## 11.1.4 Cable-Only Facilities

Certain Voice Grade services are provided on Cable-Only Facilities to meet the particular needs of a customer.

Service is provided subject to the availability of Cable-Only facilities. In the event of service failure, restoration will be made through the use of any available facilities as selected by the Telephone Company.

Avoidance and Diversity are available on Switched Access Service as set forth in Section 6. preceding; Narrowband, Voice Grade and Wideband Analog Special Access Services as set forth in 7.2.1 preceding and Special Federal Government Access Services as set forth in 10.5 preceding. Cable-Only Facilities are available for Switched Access Service as set forth in Section 6. preceding; Voice Grade Special Access Services as set forth in 7.2.1 preceding and Special Federal Government Access Services as set forth in 10.5 preceding.

In order to avoid the compromise of special routing information, the Telephone Company will provide the required routing information for each specially routed service to only the ordering customer. If requested by the customer, this information will be provided when service is installed and prior to any subsequent changes in routing.

The rates and charges for Special Facilities Routing of Access Services are developed on an individual case basis. Such rates and charges for Special Facilities Routing of Access Services are as set forth in 17.7 following and are in addition to all other rates and charges that may be applicable for services provided under other sections of this tariff.

# 12. Specialized Service or Arrangements

# 12.1 General

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

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

Rates and charges and additional regulations if applicable, for Specialized Service or Arrangements are provided on an individual case basis and are as set forth in 17.8 following.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services

# 13.1 Additional Engineering

- Additional Engineering will be provided by the Telephone Company at the request of the customer only when:
- **13.1.1** A customer requests additional technical information after the Telephone Company has already provided the technical information normally included on the Design Layout Report (DLR) as set forth in Section 6.1.5 and Section 7.1.7 preceding.
  - **13.1.2** A customer requests the provision of engineering activities which are not normally provided as part of the design and installation of a service.
  - **13.1.3** Additional engineering time is incurred by the Telephone Company to engineer a customer's request for a customized service as set forth in 7.1.1 preceding. The Telephone Company will notify the customer that additional engineering charges, as set forth in Section 13.1.3 following, will apply before any additional engineering is undertaken.
  - 13.1.4 Charges For Additional Engineering

The charges for additional Engineering are found in Section 17.5.1.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.2 <u>Additional Labor</u>

Additional labor is that labor requested by the customer on a given service and agreed to by the Telephone Company as set forth in 13.2.1 through 13.2.5 following. The Telephone Company will notify the customer that additional labor charges as set forth in 13.2.6 following will apply before any additional labor is undertaken.

### 13.2.1 Overtime Installation

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

## 13.2.2 Overtime Repair

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

### 13.2.3 **Stand By**

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

# 13.2.4 <u>Testing and Maintenance with Other Telephone Companies</u>

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

### . 13.2.5 Other Labor

Other Labor is that additional labor not included in 13.2.1 through 13.2.4 preceding.

### 13.2.6 Charges for Additional Labor

The charges for additional labor are found in Section 17.5.2.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u>

# 13.3.1 Maintenance of Service

- (A) When a customer reports a trouble to the Telephone Company for clearance, the customer shall be responsible for payment of a Maintenance of Service charge when Telephone Company personnel are dispatched to the customer's premises and no trouble is found in the Telephone Company's facilities. The charge shall be applied only after the customer has been shown and is satisfied that the Telephone Company's facilities are functioning properly. Failure of Telephone Company personnel to find trouble in Telephone Company facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.
- (B) The customer shall be responsible for payment of a Maintenance of Service charge when the Telephone Company dispatches personnel to the customer's premises, and the trouble is 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.
  - (C) The charges for Maintenance of Service are found in Section 17.5.3.

### 13.3.2 <u>Restoration Priority</u>

The Telephone Company will arrange a Special Access Service for Restoration Priority on receipt of certification in conformance with Part 64, Subpart D, Appendix A of the Federal Communication Commission's Rules and Regulations. A charge applies when a request to provide or change a Restoration Priority is received subsequent to the issuance of an Access Order to install the service. No charge applies when a Restoration Priority is discontinued.

The Restoration Priority Charge is found in Section 17.5.4.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

### 13.3.3 <u>InterLATA Presubscription</u>

- (A) Presubscription is an arrangement whereby an end user may select and designate to the Telephone Company an IC to access, without an access code, for interLATA intrastate calls. This IC is referred to as the end user's predesignated IC.
- (B) On the effective date of this tariff, all existing end users will have access to interstate MTS/WATS. Within six (6) months after the introduction of Feature Group D in a serving end office, end users may select one of the following options at no charge.
  - Designate an IC as predesignated IC and dial 10XXX or other access codes (i.e., 950-10XX) to reach other ICs.
  - Designate that they do not want to be presubscribed to any IC and choose to dial 10XXX or other access codes (i.e., 950-10XX) for all calls to all Ics, including AT&T. After the end user's initial selection of a predesignated ICs, for any additional change in selection, a nonrecurring charge, as set forth in (D) following, applies.
- (C) New end users, who are served by end offices equipped with Feature Group D, will be asked to presubscribed to an IC at the time they place an order with the Telephone Company for Telephone Exchange Service. They may select either of the following options. There will be no additional charge for this initial selection.
  - Designate an IC as predesignated IC and dial 10XXX or other access codes (i.e., 950-10XX) to reach other ICs.
  - Designate that they do not want to be presubscribed to any IC and choose to dial 10XXX or other access codes (i.e., 950-10XX) for all calls to all ICs.

Subsequent to the installation of Telephone Exchange Service, and after the end user's initial selection of a predesignated IC, for any additional change in selection, a nonrecurring charge, as set forth in (D) following, applies.

(D) The nonrecurring charge for Presubscription is found in Section 17.5.5.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

### 13.3.4 IntraLATA Presubscription (ILP)

(A) IntraLATA Presubscription is a procedure whereby a customer designates to the Telephone Company the IntraLATA Toll Provider (ITP) 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 of additional dialing to direct the calls 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.

Each carrier will have one or more access codes assigned to it for various types of service. When an end user selects a carrier as its preferred intraLATA toll provider, only one access code of that carrier may be incorporated into the switching system of the Telephone Company permitting access to that carrier by the end user without dialing an access code. Should the same end user wish to use other services of the same carrier, it will be necessary for the end user to dial the necessary access code(s) to reach that carrier's other service(s).

An ITP must use Feature Group D (FGD) Switched Access Service to qualify as an intraLATA toll provider unless prior arrangements have been made with or by the Telephone Company. IntraLATA toll providers must submit an Access Service Request (ASR) prior to the intraLATA toll presubscription conversion date or prior to the date on which the carrier proposes to begin participating intraLATA toll presubscription, unless prior arrangements have been made with the Telephone Company.

Selection of an intraLATA toll provider by an end user is subject to the terms and conditions following.

(B) At the option of the ITP, the nonrecurring charge for a change in intraLATA toll presubscription, as provided here in, may be billed to the ITP, instead of the end user. This may involve charges resulting from end-user initial free choice PIC changes, as specified in (C)(1) following.

This option for the ITP to be billed for the PIC change charge instead of the end user is not available for orders places directly via the Telephone Company's Business Offices.

- 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)
- 13.3 <u>Miscellaneous Services</u> (Cont'd)
- 13.3.4 <u>IntraLATA Presubscription (ILP)</u> (Cont'd)
  - (C) Presubscription Charge Application
    - (1) Existing end users may exercise an initial free presubscription choice, either by contacting the Telephone Company or by contacting the ITP directly. The initial free choice must be made within 90 days following implementation of intraLATA toll presubscription. The charge for the initial free choice change will be billed to the new ITP at the discretion of the Telephone Company. End user's choices which constitute exercising the free initial choice are:

Designating an ITP as their primary carrier thereby requiring no access code to access that ITP's service. Other carriers are accessed by dialing 10XXX or 101XXXX or other required codes.

Choosing no carrier as a primary carrier thus requiring 10XXX or 101XXXX code dialing to access all ITP's. This choice can be made by directly contacting the Telephone Company.

Following an existing end user's initial free selection, any subsequent selection made during the first 90 days after presubscription or any change made more than 90 days after presubscription is implemented is subject to a nonrecurring charge as set forth herein.

(2) New end users who subscribe to service after the ILP implementation date (including an existing customer who orders an additional line) will be asked to select a primary ITP when they place an order for Telephone Company Exchange Service. If a customer cannot decide upon an intraLATA toll carrier, the Telephone Company may extend a 30-day period following completion of the service request to make an intraLATA PIC choice without charge. In the interim, the customer will be assigned a 'No-PIC' and will have to dial an access code to make intraLATA toll calls.

Initial free selections available to new end users are:

- Designating an ITP as their primary carrier thereby requiring no access code to access that ITP's service. Other carriers are accessed by dialing 10XXX, 101XXXX or other required codes.
- Choose no carrier as a primary carrier thus requiring 10XXX or 101XXXX code dialing to access all ITP's. This choice can be made by directly contacting the Telephone Company. In addition, new end users that do not select a preferred carrier will be assigned a 'No-PIC'.

- 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)
  - 13.3 <u>Miscellaneous Services</u> (Cont'd)
- 13.3.4 IntraLATA Presubscription (ILP) (Cont'd)
  - (C) Presubscription Charge Application (Cont'd)

Following a new end user's initial free selection, any subsequent selection made following implementation of intraLATA toll presubscription is subject to a nonrecurring charge as set forth herein.

(3) If an ITP elects to discontinue Feature Group D service after implementation of the intraLATA toll presubscription option, the ITP is obligated to contact, in writing, all end users who have selected the canceling ITP as their preferred intraLATA toll provider. The ITP must inform the end users that it is canceling its Feature Group D service, request that the end user select a new ITP, and state that the canceling ITP will pay the PIC change charge as provided herein. The ITP must provide written notification to the Telephone Company that this activity has taken place.

Following the ITP's discontinuance of service, the Telephone Company will bill the canceling ITP the change charge for each end user that is currently designated to the ITP at the time of discontinuance.

(4) An unauthorized PIC change is a change in the presubscribed intraLATA toll provider that the end user denies authorizing. PIC disputes for end users are resolved through an investigative process.

If an unauthorized change in intraLATA presubscription occurs, the ITP making the unauthorized change will be assessed a charge for unauthorized change in presubscription as provided in 17.5.7 following. In addition, the ITP will be assessed the applicable charge for returning the end user to their preferred intraLATA toll provider.

If an unauthorized change in intraLATA toll presubscription and interLATA presubscription occurs at the same time, on the same Business/Residence line, and the presubscribed ITP is the same carrier for intraLATA and interLATA, presubscription change charges as provided herein and the Telephone Company's corresponding F.C.C. Access Tariff apply. In addition, the ITP will be assessed the applicable charges for returning the end user to their preferred intraLATA toll provider as herein and in the Telephone Company's corresponding F.C.C. tariff.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.4 IntraLATA Presubscription (ILP) (Cont'd)

# (D) Equal Access Recovery Charge

The Equal Access Recovery Charge is a charge to recover the costs that the Company has directly incurred in connection with the implementation of intraLATA toll presubscription. The Equal Access Recovery Charge is billed to intraLATA toll providers.

# (E) End User Charge Discrepancy

When a discrepancy is determined regarding an end user's designation of a preferred intraLATA toll carrier, the following applies depending upon the situation described:

- A signed letter of authorization takes precedence over any order other than subsequent, direct customer contact with the Telephone Company.
- When two or more orders are received for an end user line generated by telemarketing, the date field on the mechanized record used to transmit PIC change information will be used as the PIC authorization date. The order with the latest application date/time determines customer choice.
- If an end user denies requesting a change in intraLATA toll presubscription as submitted by an ITP, and the ITP is unable to produce a letter of authorization, signed by the end user, the ITP will be assessed all applicable change charges. The nonrecurring change charges are provided herein. The ITP will also be assessed the intraLATA toll presubscription change charge as specified herein, which was previously billed to the end user.

### (F) Verification of Orders for Telemarketing

Neither the ITP or the Telephone Company shall submit a PIC change order generated by outbound telemarketing unless and until the order has first been confined in accordance with the F.C.C.'s current anti-slamming practices and procedures.

# (G) Rates and Charges

Rates and charges for intraLATA presubscription are set forth in Section 17.5.6 following.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u>

Testing Services offered under this section of the tariff are optional and subject to rates and charges as set forth in 13.3.5(C) following. Other testing services provided by the Telephone Company in association with Access Services are furnished at no additional charge. These other testing services are described in 6.2.4 (A) and (B) preceding.

Testing services are normally provided by Telephone Company personnel at Telephone Company locations. However, provisions are made in (A)(5) and (B)(2) following for a customer to request Telephone Company personnel to perform testing services at the customer's 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), (B) and (C) 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, and (b) tests which are performed after acceptance of such access services by a customer i.e., in-service tests. These inservice tests may be further divided into two broad categories of tests: scheduled and non-scheduled.

Scheduled tests are those tests performed by the Telephone Company on a regular basis, e.g., monthly, which result in the measurement of Switched Access Service. Scheduled tests may be done on an automatic basis (no Telephone Company or customer technicians involved), on a cooperative basis (Telephone company technician(s) involved at Telephone Company office(s) and customer technician(s) involved at customer's premises), or a manual basis (Telephone Company technician(s) involved at Telephone Company office(s) and at customer's premises).

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u> (Cont'd)

### (A) <u>Switched Access Service</u> (Cont'd)

Nonscheduled tests are performed by the Telephone Company "on demand", which result in the measurement of Switched Access Services. Nonscheduled tests may involve Telephone Company technicians at Telephone Company offices and at the customer's premises.

# (1) Additional Cooperative Acceptance Testing

Additional Cooperative Acceptance Testing (ACAT) of Switched Access Service involves the Telephone Company provision of a technician at its office(s) and the customer provides a technician at its premises, with suitable test equipment to perform the required tests. Additional Cooperative Acceptance Tests may, for example, consist of the following tests:

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

### (2) <u>Automatic Scheduled Testing</u>

.

Automatic Scheduled Testing (AST) of Switched Access Services (Feature Groups B, C, and D), where the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent, will consist of monthly loss and C-message noise tests and annual balance test. However, the customer may specify a more frequent schedule of tests. In addition to the loss/noise/balance tests, the IC may also order, at additional charges, gain-slope and C-notched noise testing.

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

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u> (Cont'd)

## (A) <u>Switched Access Service</u> (Cont'd)

### (3) Cooperative Scheduled Testing

Cooperative Scheduled Testing (CST) of Switched Access Services (Feature Groups B, C, D and Directory Access Service not routed through an access tandem), where the Telephone Company provides a technician at its office(s) and the customer provides a technician at its premises, with suitable test equipment to perform the required tests, will consist of quarterly loss and C-message noise tests, and annual balance tests. However, the customer may specify a more frequent schedule of tests. In addition to the loss/noise/balance measurements, the customer may also order, at additional charges, gain-slope and C-notched noise testing.

The Telephone Company will provide, on a quarterly basis, a CST 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.

### (4) <u>Manual Scheduled Testing</u>

Manual Scheduled Testing (MST) of Switched Access Services (feature Groups B, D, and Directory Access Service not routed through an access tandem), where the Telephone Company provides a technician at its office(s) and at the customer's premises, will consist of quarterly loss and C-message noise tests, and annual balance tests. However, the customer may specify a more frequent schedule of tests. In addition to the loss/noise/balance tests, the customer may also order, at additional charges, gain-slope and C-notched noise testing.

The Telephone Company will provide, on a quarterly basis, a MST 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.

13.	Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)							
	13.3	3.3 <u>Miscellaneous Services</u> (Cont'd)						
•		13.3.5	<u>Testing Services</u> (Cont'd)					
			(A)	Switche	ed Access Service (Cont'd)			
				(5)	Nonscheduled Testing			
					Nonscheduled Testing (NST) of Switched Access Services is where:			
					the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent ("automatic testing"), or			
					- the Telephone Company provides a technician at its office(s) and the customer provides a technician at its premises, with suitable test equipment to perform the required tests ("cooperative testing"), or			
					the Telephone Company provides a technician at its offices, and/or at the customer's premises with suitable test equipment to perform the required tests ("manual testing").			
•					Nonscheduled Tests may consist of any tests, e.g., loss, noise, slope, envelope delay, which the IC may require.			
				(6)	Obligations of the Customer			
					(A) The customer shall provide the Remote Office Test Line priming data to the Telephone Company, as appropriate, to support AST as set forth in 13.3.5(A)(2) preceding or NST as set forth in 13.3.5(A)(5) preceding.			
					(B) The customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.			

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u> (Cont'd)

### (B) Special Access Service

The Telephone Company will, at the request of a customer, provide assistance in performing specific tests requested by the customer.

### (1) Additional Cooperative Acceptance Testing (ACAT)

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 or 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, e.g., consist of the following:

- VG1 through VG5: Attenuation Distortion, C-Message Noise and Echo Control
- VG6 through VG12: Attenuation Distortion, C-Message Noise,
   Echo Control, Impulse Noise, Phase Jitter, Intermodulation
   Distortion, Envelope Delay Distortion and Frequency Shift.

# (2) <u>Nonscheduled Testing (NST)</u>

When a customer provides a technician at its premises with suitable test equipment to perform the required tests, the Telephone Company will provide a technician at its office for the purpose of conducting Nonscheduled Testing. At the customer's request, the telephone Company will provide a technician at the customer's premises. Nonscheduled tests may consist of any tests, e.g., loss, noise, slope, envelope delay, which the customer may require.

# (3) <u>Obligation of the Customer</u>

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

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

# 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u> (Cont'd)

### (C) Rates and Charges

# (1) Switched Access

(a) Additional Cooperative Acceptance Testing

See Section 17.5.8 for applicable Rates and Charges.

### (b) Automatic Scheduled Testing (AST)

The three tests as set forth in Section 17.5.8(B) following represent the minimum offering, i.e., an order for testing must, at a minimum, consist of twelve 1004 Hz Tests per transmission path, twelve C-Message Noise Tests per transmission path and one Return Loss (Balance) Test per transmission path, per year. The Additional Tests as set forth in Section 17.5.8(B) following may be ordered by the customer, at additional charges, 60 days prior to the start of the customer prescribed schedule. The customer also may specify a more frequent schedule of tests 60 days prior to the start of the customer prescribed schedule.

# (c) <u>Cooperative Scheduled Testing (CST)</u>

The three tests as set forth in Section 17.5.8(C) following represent the minimum offering, i.e., an order for testing must, at a minimum, consist of four 1004 Hz Loss Tests per transmission path, four C-Message Noise Tests per transmission path and one Return Loss (Balance) Test per transmission path, per year. The Additional tests as set forth in Section 17.5.8(C) following may be ordered by the customer, at additional charges, 60 days prior to the start of the customer prescribed schedule. The customer also may specify a more frequent schedule of tests 60 days prior to the start of the customer prescribed schedule.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

# 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.5 <u>Testing Services</u> (Cont'd)

- (C) <u>Rates and Charges</u> (Cont'd)
- (1) Switched Access (Cont'd)
  - (d) <u>Manual Scheduled Testing (MST)</u>

The three tests as set forth in Section 17.5.8(D) following represent the minimum offering, i.e., an order for testing must, at a minimum, consist of four 1004 Hz Loss Tests per transmission path, four per transmission path and one Return Loss (Balance) Test per transmission path, per year. The Additional Tests as set forth in Section 17.5.8(D) following may be ordered by the customer, at additional charges, 60 days prior to the start of the customer prescribed schedule. The customer also may specify a more frequent schedule of tests 60 days prior to the start of the customer prescribed schedule.

See Section 17.5.8(D) for Rates and Charges.

(e) Nonscheduled Testing (NST)

The Rates and Charges for Nonscheduled Testing (NST) are found in Section 17.5.8(E).

- (2) Special Access
- (a) <u>Additional Cooperative Acceptance Testing (ACAT)</u>

See Section 17.5.9(A) for Rates and Charges.

(b) <u>Nonscheduled Testing (NST)</u>

See Section 17.5.9(B) for Rates and Charges.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

### 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.6 Provision of Access Service Billing Information

### **Billing Mediums**

The customer shall select the primary medium in which its official access service bills and customer service records are to be provided. This selection shall be on an account level basis, and shall be submitted in writing to the Telephone Company.

### (A) Primary Bill

At no charge to the customer, the customer shall select as the primary billing medium one of the following billing formats: standard paper, magnetic tape, or data transmission. The primary billing medium shall serve as the customer's official bill. Should the customer fail to make a selection, the official copy of the customer's access service bills and customer service records will be provided in the standard paper format.

Upon acceptance by the Telephone Company of an order for electronic data transfer, the Telephone Company will determine the period of time to implement the transmission of such material on an individual order basis.

When magnetic tape or data transmission is requested as the primary monthly bill, the customer must sign a Document of Understanding.

When magnetic tape or data transmission is requested as the primary monthly bill, the customer will receive an abbreviated bill in paper format. The abbreviated bill will contain the following sections: All Page, Balance Due, Meet Point Billing Cross Reference, Detail of Payments Applied, Detail of Balance Due, Detail of Late Payment Charges, and Other Charges and Credits.

The Telephone Company will accept a request for change from one form of primary billing medium to another at no charge to the customer.

### (B) Secondary Bill

At the customer's written request, a secondary bill, in addition to the customer's primary bill will be provided on a monthly basis. The customer may choose as the medium for the secondary bill one of the following formats: standard paper, magnetic tape, or data transmission. Charges for the provision of a secondary bill are set forth in 17.5.10 following.

# 13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

# 13.3 <u>Miscellaneous Services</u> (Cont'd)

# 13.3.6 Provision of Access Service Billing Information (Cont'd)

### (B) Additional Copies

Additional copies of a customer's previous monthly access service bills will be provided in paper format, or magnetic tape/data transmission if the original bill was generated in this format. Requests for additional copies of previous monthly bills must be submitted in writing and shall specify the bill dates requested. Such a request, when not the result of a Telephone Company error will be subject to charges as set forth in 17.5.10 following. Unless specified otherwise, additional copies of the customer's access service bills and/or magnetic tapes will be sent via U.S. Mail Service.

### 13.3.7 Protective Connecting Arrangements

The Protective Connecting Arrangements (PCAs) are grandfathered and are offered subject to on-the-shelf availability.

The Rates and Charges are found in Section 17.5.11.

# 14. Exceptions to Access Service Offerings

The services offered under the provisions of this tariff are subject to availability as set forth in 2.1.4 preceding. In addition, the following exceptions apply:

(Paragraphs 14.1 through 14.5 following are reserved for future listings as a result of a subsequent survey. In the meantime, in planning an end-to-end service, the customer should contact the Telephone Company in each customer designated premises city to assure itself that all of the service or service components required for a given customer service are currently available.)

14.1 The following service(s) is (are) not offered in the operating territory of listed Issuing Carriers.

(Reserved for future use.)

14.2 The following offering(s) is (are) limited to existing locations. No inside moves, rearrangements or additions will be permitted.

(Reserved for future use.)

14.3 The following offering(s) is (are) limited to existing locations. Inside moves or rearrangements may be undertaken. However, no additions will be permitted.

(Reserved for future use.)

14.4 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. Inside moves or rearrangements may be undertaken.

(Reserved for future use.)

14.5 The following offering(s) is (are) limited to existing locations where additional units may be added for growth. However inside moves or rearrangements will not be permitted.

(Reserved for future use.)

# 15. Access Service Interfaces and Transmission Specifications

15.1 contains Switched Access Service Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level and Local Transport Termination) and Transmission Specifications. 15.2 describes Special Access Service Network Channel (NC) codes and Network Channel Interface (NCI) codes. 15.3 contains Interface Group, Premises Interface Code and Standard Transmission Specifications applicable to Directory Access Service.

### 15.1 Switched Access Service

Ten Interface Groups are provided for terminating the Local Transport Entrance Facility at the customer's designated premises. Each Interface Group provides a specified premises interface (e.g., two-wire, four-wire, DS1, etc.). Where transmission facilities permit, and at the option of the customer, the Entrance Facility may be provided with optional features as set forth in 15.1.1 following.

As a result of the customer's access order and the type of Telephone Company transport facilities serving the customer designated premises, the need for signaling conversions or two-wire or four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Telephone Company equipment be placed at the customer designated premises. For example, if a voice frequency interface is ordered by the customer and the Telephone Company facilities serving the customer designated premises are digital, then Telephone Company channel bank equipment must be placed at the customer designated premises in order to provide the voice frequency interface ordered by the customer.

### 15.1.1 <u>Local Transport Interface Groups</u>

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, as set forth in 15.1.2(C) following, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, as set forth respectively in 15.1.2(E) and (F) following, 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 designated premises. The premises interfaces associated with the Interface Groups may vary among Feature Groups.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.1 <u>Switched Access Service</u> (Cont'd)

# 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

### (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 designated 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 designated premises and the customer serving wire center 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.

### (B) Interface Group 2

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer designated 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 designated premises and the customer serving wire center 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.

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.1 <u>Switched Access Service</u> (Cont'd)

# 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

# (C) <u>Interface Groups 3 through 5</u>

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.

			Maximum No. of
Interface Group	Transmission	AnalogChannelize	d Voice
Identification No.	Frequency Bandwidth	Hierarchy Level	Freq. Trans. Paths
3	60-108 kHz	Group	12
4	312-552 kHz	Supergroup	60
5	564-3084 kHz	Mastergroup	600

# (D) <u>Interface Groups 6 through 10</u>

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	Nominal Bit	Digital	Max. No. of Channelized
Identification No.	Rate (Mbps)	Hierarchy Level	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

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.1 <u>Switched Access Service</u> (Cont'd)

# 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

### (E) <u>Local Transport Optional Features</u>

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 17.1.3 following is applicable on a per order basis when nonchargeable optional features are added subsequent to the installation of service (with the exception of the addition of 64 Clear Channel Capability to an existing service).

When the 64 Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply.

### - 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.

# - <u>Customer Specification of Local Transport</u> <u>Termination</u>

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.

# - <u>Supervisory Signaling</u>

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.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 <u>Switched Access Service</u> (Cont'd)

#### 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

- (E) <u>Local Transport Optional Features</u> (Cont'd)
  - 64 Clear Channel Capability

64 Clear Channel Capability allows the customer to transport voice or data signals over a 64 Kbps channel with no constraints on the quantity or sequence of ones and zero bits. This option employs the Bipolar 8 Zero Suppression (B8ZS) technique to permit customers to use the full 64 Kbps bandwidth of a DS0 channel. It is only available in suitably equipped electronic end offices as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF No. 4. 64 Clear Channel Capability, as described in Technical Reference GR-334-CORE, is available with Interface Groups 6 and 9 for Feature Groups C and D with Signaling System 7 (SS7) signaling.

The Interface Groups, as described 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

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 <u>Switched Access Service</u> (Cont'd)

#### 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

# (E) <u>Local Transport Optional Features</u> (Cont'd) available only where the first point of switching provides an analog (i.e., non digital)

with the SS7 optional feature as described in 6.8.2(C) (2) preceding.

These optional Supervisory Signaling arrangements are not available in combination

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.

#### (F) <u>Available Premises Interface Codes</u>

interface to the transport termination.

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 15.2.2(A) following.

Interface	Telephone Company	Premises	]	Feature	Grou	ı <u>p</u>
Group	Switch Supervisory Signaling	Interface Code	A	В	С	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, EC3	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

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

# 15.1 <u>Switched Access Service</u> (Cont'd)

## 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

## (F) <u>Available Premises Interface Codes</u> (Cont'd)

Interface	Telephone Company	Premises	Feature Grou		-	
Group	Switch Supervisory Signaling	Interface Code	<u>A</u>	В	C	D
2 2	LO, GO LO, GO LO LO LO GO GO GO LO, GO	4SF2 4SF3 4LS2 4LS3 6LS2 4GS2 4GS3 6GS2 4DX2 4DX3 6EA2-E	X X X X X X X X X X X X X X X X X X X	Б	C	<u>D</u>
	LO, GO	6EA2-M	X			
	LO, GO LO, GO	8EB2-E 8EB2-M	X X			
	LO, GO RV, EA, EB, EC RV, EA, EB, EC	6EX2-B 4SF2 4SF3	X	X X	X	X
	RV, EA, EB, EC RV, EA, EB, EC	4DX2 4DX3		X X	X	X
	RV, EA, EB, EC RV, EA, EB, EC RV, EA, EB, EC	6DX2 6EA2-E 6EA2-M	X	X X	X X X	X
	RV, EA, EB, EC RV, EA, EB, EC EA, EB, EC RV RV	8EB2-E 8EB2-M 8EC2-M 4RV2-O 4RV2-T		X X X	X X X X X	X X X X
	RV RV SS7	4RV3-O 4RV3-T 4NO2		X X	X X X	X
3	LO, GO RV, EA, EB, EC SS7	4AH5-B 4AH5-B 4AH5-B	X	X	X X	X X
4	LO, GO RV, EA, EB, EC SS7	4AH6-C 4AH6-C 4AH6-C	X	X	X X	X X

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

# 15.1 <u>Switched Access Service</u> (Cont'd)

## 15.1.1 <u>Local Transport Interface Groups</u> (Cont'd)

## (F) <u>Available Premises Interface Codes</u> (Cont'd)

Interface	Telephone Company	Premises	<u> </u>	eature		-
<u>Group</u>	Switch Supervisory Signaling	Interface Code	<u>A</u>	В	C	D
5	LO, GO RV, EA, EB, EC SS7	4AH6-D 4AH6-D 4AH6-D	X	X	X X	X X
6	LO, GO LO, GO RV, EA, EB, EC RV, EA, EB, EC SS7	4DS9-15 4DS9-15L 4DS9-15 4DS9-15L 4DS9-15	X X	X X	X X X	X X X
7	LO, GO LO, GO RV, EA, EB, EC RV, EA, EB, EC SS7	4DS9-31 4DS9-31L 4DS9-31 4DS9-31L 4DS9-31	X X	X X	X X X	X X X
8	LO, GO LO, GO RV, EA, EB, EC RV, EA, EB, EC SS7	4DS0-63 4DS0-63L 4DS0-63 4DS0-63L 4DS0-63	X X	X X	X X X	X X X
9	LO, GO LO, GO RV, EA, EB, EC RV, EA, EB, EC SS7	4DS6-44 4DS6-44 4DS6-44 4DS6-44L 4DS6-44	X X	X X	X X X	X X X
10	LO, GO LO, GO RV, EA, EB, EC RV, EA, EB, EC SS7	4DS6-27 4DS6-27L 4DS6-27 4DS6-27L 4DS6-27	X X	X X	X X X	X X X

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 <u>Switched Access Service</u> (Cont'd)

#### 15.1.2 <u>Standard Transmission Specifications</u>

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 the these Standard Transmission Specifications and the two Data Transmission Parameters mentioned are set forth respectively in (E) through (G) and 15.1.3(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 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 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.

#### (C) Feature Group C

FGC is provided with either Type B or Type C Transmission 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.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 <u>Switched Access Service</u> (Cont'd)

### 15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

#### (C) Feature Group C (Cont'd)

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.

#### (D) Feature Group D

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

- When routed to the end office either Type B or C is provided.
- When routed to an access tandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.

Type C Transmission 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.

## (E) Type A Transmission Specifications

Type A Transmission Specifications is provided with the following parameters:

#### (1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is  $\pm 2.0$  dB

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 Switched Access Service (Cont'd)

### 15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

#### (E) Type A Transmission Specifications (Cont'd)

## (2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to the loss at 1004 Hz is -1.0 dB to +3.0 dB.

#### (3) <u>C-Message Noise</u>

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) <u>C-Notch Noise</u>

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone, is less than or equal to 45 dBmCO.

## (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 POT to End Office	21 dB	14
- Direct	N/A	N/A
- Via Access Tandem	16 dB	11 dB

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 Switched Access Service (Cont'd)

#### 15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

#### (E) Type A Transmission Specifications (Cont'd)

#### (6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB

#### (F) Type B Transmission Specifications

Type B 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  $\pm 2.5$  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 +4.0 dB.

#### (3) <u>C-Message Noise</u>

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

	C-Message Noise*		
Route Miles	Type B1	Type B2	
less than 50	32 dBrnCO	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	45dBrnCO	

<sup>\*</sup> 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 GR-334-CORE.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 Switched Access Service (Cont'd)

### 15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

#### (F) Type B Transmission Specifications (Cont'd)

#### (4) <u>C-Notch Noise</u>

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

#### (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 - Terminated in	21 dB	14 dB
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 trans-		
mission path		
at end office)	16 dB	11 dB
. For FGC access		
(Effective		
2-Wire trans-		
mission path		
at end office)	13 dB	6 dB

#### Access Service Interfaces and Transmission Specifications (Cont'd)

#### **Switched Access Service** (Cont'd) 15.1

#### 15.1.2 **Standard Transmission Specifications** (Cont'd)

#### (F) Type B Transmission Specifications (Cont'd)

#### (6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Singing Return Loss, on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss
5 dB	2.5 dB

#### (G) Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters:

#### (1) <u>Loss Deviation</u>

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is  $\pm$  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.

#### C-Message Noise (3)

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

	C-Message Noise*			
Route Miles	Type C1	Type C2		
less than 50	32 dBrnCO	38 dBrnCO		
51 to 100	33 dBrnCO	39 dBrnCO		
101 to 200	35 dBrnCO	41 dBrnCO		
201 to 400	37 dBrnCO	43 dBrnCO		
401 to 1000	39 dBrnCO	45 dBrnCO		

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 Switched Access Service (Cont'd)

### 15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

#### (G) Type C Transmission Specifications (Cont'd)

#### (4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

### (5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	Echo Return Loss	Singing Return Loss
POT to Access Tandem	13 dB	6 dB
POT to End Office - Direct - Via Access Tandem (for FGB only)	13 dB 8 dB	6 dB 4 dB

<sup>\*</sup> For Feature Groups 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 GR-334-CORE.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 <u>Switched Access Service</u> (Cont'd)

#### 15.1.3 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) <u>Data Transmission Parameters Type DA</u>

#### (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) <u>Impulse Noise Counts</u>

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

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.1 Switched Access Service (Cont'd)

### 15.1.3 <u>Data Transmission Parameters</u>(Cont'd)

#### (A) <u>Data Transmission Parameters Type DA</u> (Cont'd)

#### (5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 50 peak-to-peak.

#### (6) Frequency Shift

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

#### (B) <u>Data Transmission Parameters Type DB</u>

#### (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 mile 320 microseconds

equal to or greater than

50 route miles 500 microseconds

#### (3) <u>Impulse Noise Counts</u>

The Impulse Noise Counts exceeding a 67 dBrnCO threshold in 15 minutes is no more than 15 counts.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.1 Switched Access Service (Cont'd)

### 15.1.3 <u>Data Transmission Parameters</u>(Cont'd)

#### (B) <u>Data Transmission Parameters Type DB</u> (Cont'd)

### (4) <u>Intermodulation Distortion</u>

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 70 peak-to-peak.

### (6) Frequency Shift

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

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 **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 option codes available for each channel service code, such as C-conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Telephone Company and the customer.

On the following 3 pages are examples which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types (e.g., TG1 = 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, SD codes may be converted to NC codes for service ordering purposes.

A chart is also provided in 15.2.2(A) following which contains information necessary to develop NCI codes.

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Special Report SR-STS-000307. However, not all services contained in this Special Report may be offered by the Telephone Company at this time.

Lastly, 15.2.2(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.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service (Cont'd)

<u>Example No. 1</u>: 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.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service (Cont'd)

<u>Example No. 2</u>: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

<u>NC</u> <u>NCI</u> <u>SECNCI</u> LC-- 04LO2 02LS2

NC Code:

LC = Voice Grade Channel Service, VG2

-- = No Optional Features

NCI Code:

04 = Number of physical wires at CDP

LO = Loop start, loop signaling - open end

2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

02 = Number of physical wires at CDP

LS = Loop start signaling - closed end

2 = 600 Ohms impedance

<u>Example No. 3</u>: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

<u>NC</u> <u>NCI</u> <u>SECNCI</u> HC-- 04DS9-15 04DS9-15

NC Code:

HC= High Capacity Channel Service, HC1

-- = No Optional Features

NCI, SECNCI Code:

04 = Number of physical wires at CDP

DS = Digital hierarchy interface

9 = 100 Ohms impedance

15 = 1.544 Mbps (DS1) format

The preceding three examples use information contained in Special Report SR-STS-000307.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service (Cont'd)

#### 15.2.1 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 SD code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth in 15.2.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

#### (A) Technical Specifications Packages Metallic Service

	Package			
SD Code NC Code	MTC* MQ	<u>MT1</u> <u>NT</u>	MT2 NU	<u>MT3</u> <u>NV</u>
<u>Parameter</u>				
DC Resistance Between Conductors Loop Resistance Shunt Capacitance	X X X	X	X	X X
Optional Features and Functions				
Three Premises Bridging Series Bridging	X X	X	X	X

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

<sup>\*</sup> All parameters are available within ranges selected by the customer where technically feasible.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

### 15.2.1 Network Channel (NC) Codes (Cont'd)

## (B) <u>Technical Specifications Packages Telegraph Grade</u> <u>Service</u>

		Package	9
SD Code	TGC*	<u>TG1</u>	TG2
NC Code	<u>NQ</u>	<u>NW</u>	<u>NY</u>
<u>Parameter</u>			
Telegraph DistortionX	X	X	
Optional Features and Functions			
Telegraph Bridging	X	X	X

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

<sup>\*</sup> All parameters are available within ranges selected by the customer where technically feasible.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.1 Network Channel (NC) Codes (Cont'd)

## (C) <u>Technical Specifications Packages Voice Grade Service</u>

							I	Packag	ge VG	ſ					
	SD Code	<u>C</u> *	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	W
	NC Code	<u>LQ</u>	<u>LB</u>	<u>LC</u>	<u>LD</u>	<u>LE</u>	<u>LF</u>	<u>LG</u>	<u>LH</u>	<u>LJ</u>	<u>LK</u>	<u>LN</u>	<u>LP</u>	<u>LR</u>	SE
<u>Parameter</u>															
Attenuation															
Distortion		X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	e	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	X
Envelope Delay															
Distortion		X						X	X	X	X	X	X	X	X
Frequency Shift		X						X	X	X	X	X	X	X	X
Impulse Noise		X					X	X	X	X	X	X	X	X	X
Intermodulation															
Distortion		X						X	X	X	X	X	X	X	X
Loss Deviation		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain															
Hits, and Drope	outs	X						X	X	X	X	X	X	X	X
Phase Jitter		X						X	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 GR-334-CORE and TR-TSY-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004, Table 4.

<sup>\*</sup> The desired parameters are selected by the customer from the list of available parameters.

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

## 15.2 Special Access Service (Cont'd)

# 15.2.1 Network Channel (NC) Codes (Cont'd)

(C) <u>Technical Specifications Packages Voice Grade Service</u> (Cont'd)

							Packa	ge VC	ភ្ជ					
SD Code NC Code	<u>C</u> * <u>LQ</u>	<u>1</u> <u>LB</u>	<u>2</u> <u>LC</u>	<u>3</u> LD	<u>4</u> <u>LE</u>	<u>5</u> <u>LF</u>	<u>6</u> LG	7 <u>LH</u>	8	<u>9</u> <u>LK</u>	<u>10</u> <u>LN</u>	<u>11</u> <u>LP</u>	<u>12</u> <u>LR</u>	<u>W</u> <u>SE</u>
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	<b>3</b> 7			<b>T</b> 7			
. Data Capability	X						X	X			X			
. Telephoto	37											37		
Capability	X											X		
Customer Specified Premises Receive														
Level	v		X	X				v	$\mathbf{v}$	$\mathbf{v}$				
Improved Return Loss	X		Λ	Λ				X	X	X				
For Effective														
Four-Wire														
Transmission	X	X	X	X	X	X	X	X	X	X	X	X	X	
For Effective	Λ	Λ	11	71	1	Λ	Λ	Λ	71	<b>A</b>	Λ	Λ	Λ	
Two-Wire														
Transmission	X		X	X				X						
Improved Two-Wire	71		21	21				21						
Voice Transmission														X
PPSN Interface														11
Arrangement	X									X				
Selective Signaling										2.				
Arrangement	X		X			X	X				X	X	X	
Signaling Capability	X	X	X	X				X	X	X				
Transfer Arrangement	X	X	X	X	X	X	X	X	X	X	X	X	X	

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

## 15.2.1 Network Channel (NC) Codes (Cont'd)

## (C) <u>Technical Specifications Packages Voice Grade Service</u> (Cont'd)

		Package					
	SD Code	APC*	AP1	AP2	AP3	AP4	
	NC Code	<u>PQ</u>	<u>PE</u>	<u>PF</u>	<u>PJ</u>	<u>PK</u>	
<u>Parameter</u>							
Actual Measured Loss		X	X	X	X	X	
Amplitude Tracking Crosstalk Distortion Tracking		X X X	X	X	X	X	
Gain/Frequency Distortion Group Delay		X X	X	X	X	X	
Noise Phrase Tracking		X X	X	X	X	X	
Short-Term Gain Stability Short-Term Loss Total Distortion		X X X	X	X	X	X	
Optional Features and Functions							
Central Office Bridging Capability Gain Conditioning Stereo		X X X	X X	X X	X X X	X X	

The technical specifications are described in Technical Reference TR-NPL-000337 and associated Addendum.

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EFFECTIVE: July 17, 2006

<sup>\*</sup> The desired parameters are selected by the customer from the list of available parameters.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

## 15.2.1 Network Channel (NC) Codes (Cont'd)

### (D) Technical Specifications Packages Video Service

		P	ackage	
SD Code		TVC*	<u>TV1</u>	TV2
NC Code		TQ	TV	TW
<u>Video Parameters</u>				
Insertion Gain		X	X	X
Field-Time Distortion		X	X	X
Line-Time Distortion		X	X	X
Short-Time Distortion	X	X	X	
Chrominance-Luminance Gain				
Inequality		X	X	X
Chrominance-Luminance Delay				
Inequality		X	X	X
Amplitude/Frequency Characteristic		X	X	X
Luminance Non-Linear Distortion		X	X	X
Chrominance Non-Linear Gain				
Distortion		X	X	X
Chrominance Non-Linear Phase				
Distortion		X	X	X
Transient Synchronizing Signal				
Non-Linearity		X	X	X
Dynamic Gain Distortion				
- Picture Signal		X	X	X
- Synchronizing Signal		X	X	X
Differential Gain		X	X	X
Differential Phase		X	X	X
Chrominance-Luminance Intermodulation		X	X	X

<sup>\*</sup> The desired parameters are selected by the customer from the list of available parameters.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

## 15.2.1 Network Channel (NC) Codes (Cont'd)

# (D) <u>Technical Specifications Packages Video Service</u> (Cont'd)

	P	ackage	
SD Code	TVC*	<u>TV1</u>	<u>TV2</u>
NC Code	<u>TQ</u>	<u>TV</u>	<u>TW</u>
Audio Channel Parameters			
Associated with Video Service			
Insertion Gain	X	X	X
Amplitude/Frequency Characteristic	X	X	X
Total Harmonic Distortion & Noise	X	X	X
Maximum Steady-State Test Levels	X	X	X
Gain Differential Between Channels	X	X	
Phase Differential Between Channels	X	X	
Crosstalk	X	X	X
Audio-To-Video Time Differential	X	X	X

The technical specifications are described in Technical Reference TR-NPL-000338.

<sup>\*</sup> The desired parameters are selected by the customer from the list of available parameters.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service (Cont'd)

## 15.2.1 Network Channel (NC) Codes (Cont'd)

#### (E) <u>Technical Specifications Packages Digital Data</u> Service

				Packa	age		
	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 TR-NPL-000341.

Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-00341.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.1 Network Channel (NC) Codes (Cont'd)

(F) <u>Technical Specifications Packages High Capacity</u> Service

			Pac	kage		
SD Code NC Code	HC0 HS	<u>HC1</u> <u>HC</u>	HC1C HD	HC2 HE	HC3 HF	HC4 HG
<u>Parameters</u>						
Error-Free Seconds		X				
Optional Features and Functions						
Automatic Loop Transfer			X			
Central Office Multiplexing: DS4 to DS1 DS3 to DS1 DS2 to DS1 DS1C to DS1 DS1 to Voice DS1 to DS0 DS0 to Subrate* Transfer Arrangement Clear Channel Capability	X	X X X	X	X	X	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.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.2 Network Channel Interface (NCI) Codes

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

#### <u>Parameter</u>

Code	<u>Option</u>	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
	В	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 Superframe (ESF) Format and B8ZS
		Clear Channel Capability
-	15A	1.544 Mbps (DS1) Superframe (SF) format
-	15B	1.544 Mbps (DS1) Superframe (SF) format and B8ZS Clear Channel
		Capability
-	15K	1.544 Mbps (DS1) Extended Superframe (ESF)
D -		data stream in VF frequency band at customer's end user's point of
		termination
DB -		data stream in VF frequency band at customer's point of termination
-	10	VF for TG1 and TG2
-	43	VF for 43 Telegraph Carrier type signals, TG1 and TG2
DC -		direct current or voltage
-	1	monitoring interface with series RC combination (McCulloh format)
-	2	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

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

## (A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DS -		digital hierarchy interface
-	15	1.544 Mbps (DS1) format per PUB 41451 plus D4
-	15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
-	15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
-	15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
-	15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
-	15J	1.544 Mbps format per PUB 62411
-	15K	1.544 Mbps format per PUB 62411 plus extended framing format
-	15L	1.544 Mbps (DS1) with SF signaling
-	27	274.176 Mbps (DS4)
-	27L	274.176 Mbps (DS4) with SF signaling
-	31	3.152 Mbps (DS1C)
-	31L	3.152 Mbps (DS1C) with SF signaling
-	44	44.736 Mbps (DS3)
-	44L	44.736 Mbps (DS3) with SF signaling
-	63	6.312 Mbps (DS2)
-	63L	6.312 Mbps (DS2) with SF signaling
DU -		digital access interface
-	24	2.4 kbps
-	48	4.8 kbps
-	19	19.2 Kbps
-	56	56.0 kbps
-	96	9.6 kbps
-	64	64.0 Kbps
-	A	1.544 Mbps format per PUB 62411
-	В	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

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

## (A) Parameter Codes and Options (Cont'd)

## Parameter (Cont'd)

Code	<u>Option</u>	<u>Definition</u>
DX - DY -		duplex signaling interface at customer's point of termination duplex signaling interface at customer's end user's point of termination
EA -	E	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EA -	M	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB -	Е	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 -	В	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

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

Code	<u>Option</u>	<u>Definition</u>
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 -	O	reverse battery signaling, one way operation, originate by customer
-	T	reverse battery signaling, one way operation, terminate function by customer
		or customer's end user
SF -		single frequency signaling with VF band at either customer POT or
		customer's end user POT
TF -		telephotograph interface
TT -		telegraph/teletypewriter interface at either customer POT or customer's end user POT
-	2	20.0 milliamperes
-	3	3.0 milliamperes
-	6	62.5 milliamperes
TV -		television interface
-	1	combined (diplexed) video and one audio signal
-	2	combined (diplexed) video and two audio signals
-	5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two wire
-	15	video plus one (or two) audio 15 kHz signal(s)

ISSUED: July 13, 2006

<sup>\*</sup> Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

#### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

#### 15.2 Special Access Service (Cont'd)

#### 15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

#### (B) Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

Value (ohms)	Code(s)
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9

#### (C) Compatible Network Channel Interfaces

The following tables show the Network Channel Interface codes (NCIs) which are compatible:

#### (1) Metallic

#### Compatible CIs

2DC8-1 2DC8-2 2DC8-3 2DC8-3 4DS8 2DC8-1 4DS8 2DC8-2

<sup>\*</sup> 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.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

### (C) Compatible Network Channel Interfaces (Cont'd)

## (2) <u>Telegraph Grade</u>

Compatible CIs		Compatible CIs		
2DB2-10	10IA8 2TT2-2 4TT2-2	4DB2-10 2TT2-2 4TT2-2	10IA8	
2DB2-43*	10IA8 2TT2-2 2TT2-6 4TT2-2	4DB2-43*	10IA8 2TT2-6 4TT2-2	
2TT2-2 2TT2-3	2TT2-2 2TT2-2 4TT2-2	4DS8-	10IA8 2TT2-2 2TT2-6 4TT2-2 4TT2-6	
2TT2-6	2TT2-6 4TT2-6	4TT2-2 4TT2-6	4TT2-2 2TT2-6	

## (3) <u>Voice Grade</u>

Compatible CIs		Compati	Compatible CIs		Compatible CIs	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2	
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2	

<sup>\*</sup> Supplemental Channel Assignment information required.

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 <u>Special Access Service</u> (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

## (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compatible CIs		Compati	Compatible CIs		Compatible CIs	
2CT3	2DY2 4DS8 4DX2 4DX3 4DY2	2DX3	2LA2 2LB2 2LC2 2LO3 2LS2	2LS	2GS 2LS 4GS 4LS	
	4EA2-E 4EA2-M 4SF2 4SF3	2GO2	2LS2 2LS3 2GS2 2GS3	2LS2	2LA2 2LB2 2LC2	
	6DX2 6DY2 6DY3 6EA2-E	2GO3	2GS2 2GS3	2LS3	2LA2 2LB2 2LC2	
	6EA2-M 6EB2-E 6EB2-M	2GS	2GS 2LS 4GS	2N02	2DA2 2N02	
	6EB3-E 8EB2-E 8EB2-M	2L02	4LS 2LS2	2N03	2N02 2PR2	
	8EC2 9DY2 9DY3	2L03	2LS3 2LS2	2TF3	2TF2	
	9EA2 9EA3		2LS3			
4AB2	2AC2 4AB2 4AC2 4SF2					

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

# 15.2 <u>Special Access Service</u> (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

## (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

## (3) <u>Voice Grade</u> (Cont'd)

Compatible CIs		Compati	Compatible CIs		Compatible CIs	
4AB3	2AC2 4AC2 4SF2					
4AC2	2AC2 4AC2					
		4DS8-	2AC2 2DA2 2DY2 2GO2	4DS8-	4DG2 4LR2 4LS2 4NO2	
4DA2	4DA2		2GO3		4PR2	
4DA2 4DB2 4DD3	4DA2  2DA2  2NO2  2PR2  4DA2  4DB2  4NO2  4PR2  6DA2  2DE2  4DE2		2GO3 2GS2 2GS3 2LA2 2LB2 2LC2 2LC2 2LO3 2LR2 2LS2 2LS3 2NO2 2PR2 2RV2-T 2TF2 4AC2		4PR2 4RV2-T 4SF2 4SF3 4TF2 6DA2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 6GS2 6LS2 8EB2-E 8EB2-M	
			4DA2 4DE2 4DX2 4DX3 4DY2 4EA2-E 4EA2-M		9DY2 9DY3 9EA2 9EA3	

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 <u>Special Access Service</u> (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

- (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)
  - (3) <u>Voice Grade</u> (Cont'd)

Compatible CIs		Compatible CIs		Compatible CIs	
	2DY2 2LA2 2LB2 2LC2 2LC3 2LS2 2LS3	4DX2	8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3	4DX3	6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 6LS2
	2RV2-T 4DX2 4DY2 4EA2-E 4EA2-M 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 6LS2	4DX3	2DY2 2LA2 2LB2 2LC2 2LO3 2LS2 2LS3 2RV2-T 4DX2 4DX3 4DY2 4EA2-E 4EA2-M 4LS2 4RV2-T 4SF2	4DY2	8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3 2DY2 4DY2

## 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 <u>Special Access Service</u> (Cont'd)

## 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

### (C) Compatible Network Channel Interfaces (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compatible CIs		Compatible CIs		Compatible CIs	
4EA2-E	2DY2 4DY2 4EA2-E 4EA2-M 4SF2 6DY2 6DY3 6EB2-E 6EB2-M 8EB2-E	4EA3-E	2DY2 4DY2 4EA2-E 4EA2-M 4SF2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E	4GO2 4GO3	2GO2 2GO3 2GS2 2GS3 4GS2 4SF2 6GS2
4EA2-M	8EB2-M 9DY2 9DY3 9DY2 2DY2 4DY2 4EA2-M 4SF2 6DY2		6EB2-M 8EB2-E 8EB2-M 6GS2 9DY3 9EA2 9EA3	4GS	2GS3 4GS2 4SF2 2GS 2LS 4GS
	6DY3 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2 9DY3				4LS

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

# (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compat	ible CIs	Compatib	Compatible CIs		Compatible CIs	
4LO2	2LS2 2LS3 4LS2 4SF2 6LS2	4LS3	2LA2 2LB2 2LC2 2LO2 2LO3 4SF2	4SF2	2LO3 2LR2 2LS2 2LS3 2RV2-T 4AC2	
4LO3	2LS2 2LS3 4LS2 4SF2 6LS2	4NO2	2DA2 2DE2 2NO2 4DA2 4DE2		4DY2 4LS2 4RV2-T 4SF2 6DY2 6DY3	
4LR2	2LR2 4LR2 4SF2	4RV2-0	4NO2 6DA2 2RV2-T		6GS2 9DY2 9DY3	
4LR3	2LR2 4LR2 4SF2	4KV2-0	4RV2-T 4SF2	4SF3	2DY2 2GO3 2GS2 2GS3	
4LS	2GS 2LS 4GS 4LS	4SF2	2AC2 2DY2 2GS2 2GS3 2LA2		2LA2 2LB2 2LC2 2LC2 2L03 2LR2	
4LS2	2LA2 2LB2 2LC2 2LO2 2LO3		2LB2 2LC2		ZUNZ	

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

# (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compat	ible CIs	Compa	Compatible CIs		Compatible CIs	
4SF3	2LS2 2LS3 2RV2-T	6DA	4DA2 6DA2	6DY3	2DY2 4DY2 6DY2	
	4DY2 4EA2-E	6DX2	2DY2 4DY2		6DY3	
	4EA2-M 4GS2		4EA2-E	6EA2-E	2AC2	
	4LR2 4LS2		4EA2-M 4SF2		2DY2 2LA2	
	4RV2-T		6DY2		2LB2	
	4SF2 4SF3		6DY3 6EA2-E		2LC2 2LO3	
	6DY2		6EA2-M		2LS2	
	6DY3 6EB2-E		6EB2-E 6EB2-M		2LS3 2RV2-T	
	6EB2-M		8EB2-E		4AC2	
	6GS2 6LS2		8EB2-M 9DY2		4DY2 4EA2-E	
	9DY2		9DY3		4EA2-E	
	9DY3		9EA2		4LS2	
	9EA2 9EA3		9EA3		4RV2-T 4SF2	
4TF2	2TF2	6DY2	2DY2 4DY2		4SF3 6DY2	
7112	4TF2		6DY2		6DY3 6EA2-E 6EA2-M	

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

# (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compatib	ole CIs	Compatibl	e CIs	Compatible	CIs
6EA2-E	6EB2-E 6EB2-M 6LS2 8EB2-E 8EB2-M 9DY2 9DY3 2AC2 2DY2 2LA2 2LB2 2LC2	6EA2-M 6EB2-E	6DY2 6DY3 6EA2-M 6EB2-E 6EB2-M 6LS2 8EB2-E 8EB2-M 9DY2 9DY3	6EB3-E	2DY2 4DY2 4EA2-E 4EA2-M 4SF2 6DY2 6DY3 6EA2-E 6EA2-M 8EB2-E 8EB2-M 9DY2 9DY3
	2LO3 2LS2 2LS3 2RV2-T 4AC2 4DY2 4EA2-E 4EA2-M 4LS2 4RV2-T 4SF2 4SF3	6EB2-M	4SF2 6DY2 6DY3 6EB2-E 6EB2-M 9DY2 9DY3 2DY2 4DY2 4SF2 6DY2 6DY3 6EB2-M 9DY2 9DY3	6EX2-A	9EA2 9EA3 2GS2 2GS3 2LS2 2LS3 4GS2 4LS2 4SF2 6GS2 6LS2

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

# (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compatib	ole CIs	Compatible	e CIs	Compatible	CIs
6EX2-B	2GO3 2LA2 2LB2 2LC2 2LO2 2LO3 2LR2 4LR2 4SF2	8EB2-E	2AC2 2DY2 2LA2 2LB2 2LC2 2LO3 2LS2 2LS3 2RV2-T 4AC2	8EB2-M	2AC2 2DY2 2LA2 2LB2 2LC2 2LO3 2LS2 2LS3 2RV2-T 4AC2
6GO2 6LO2	2GO2 2GS2 2GS3 4GS2 4SF2 6GS2 2LS2 2LS3 4LS2		4DY2 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EB2-E 6EB2-M 6LS2		4DY2 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EB2-E 6EB2-M 6LS2
6LS2	4SF2 6LS2 2LA2 2LB2 2LC2 2LO2 2LO3 4SF2		8EB2-E 8EB2-M 9DY2 9DY3		8EB2-M 9DY2 9DY3

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

# (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

# (3) <u>Voice Grade</u> (Cont'd)

Compatib	ole CIs	Compatib	Compatible CIs		Compatible CIs	
Compatible 8EC2	2DY2 4DY2 4EA2-E 4EA2-M 4SF2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3	Compatible 9DY2  9DY3	2DY2 4DY2 6DY2 6DY3 9DY2 2DY2 4DY2 6DY3 9DY2 9DY3 2DY2 4EA2-E 4EA2-M 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2	Compatible 9EA3	CIs  2DY2 4DY2 4EA2-E 4EA2-M 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 8EB2-M 9DY2 9DY3 9EA3	
			9DY3 9EA2 9EA3			

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 **Special Access Service** (Cont'd)

# 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

### (C) Compatible Network Channel Interfaces (Cont'd)

### (4) <u>Program Audio</u>

Compatible CIs		Compatible (	<u>CIs</u>
2PG2-1	2PG1-1 2PG2-1	4DS8-15E	2PG1-3 2PG2-3
2PG2-3	2PG1-3 2PG2-3	4DS8-15F	2PG1-5 2PG2-5
2PG2-5	2PG1-5 2PG2-5	4DS8-15G	2PG1-8 2PG2-8
2PG2-8	2PG1-8 2PG2-8	4DA8-15H	2PG1-1 2PG2-1

### (5) <u>Video</u>

Compatib	<u>le CIs</u>	Compatible CIs		
2TV6-1	4TV6-15 4TV7-15	4TV7-5	4TV6-5 4TV7-5	
2TV6-2	6TV6-15 6TV7-15	4TV7-15	4TV6-15 4TV7-15	
2TV7-1	4TV6-15 4TV7-15	6TV6-5	6TV6-5 6TV7-5	
2TV7-2	6TV6-15 6TV7-15	6TV6-15	6TV6-15 6TV7-15	
4TV6-5	4TV6-5 4TV7-5	6TV7-5	6TV6-5 6TV7-5	
4TV6-15	4TV6-15 4TV7-15	6TV7-15	6TV6-15 6TV7-15	

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

### (C) Compatible Network Channel Interfaces (Cont'd)

### (6) <u>Digital Data</u>

Compatible	e CIs	Compatible	<u> CIs</u>	Compatible	<u>CIs</u>
4DS8-15	4DS8-15+ 4DU5-24	4DU5-24	4DU5-24	6DU5-24	6DU5-24
	4DU5-48	4DU5-48	4DU5-48	6DU5-48	6DU5-48
	4DU5-56	4DH5 06	4DU5 06	CDUE EC	(DUE 5)
	4DU5-96 6DU5-24	4DU5-96	4DU5-96	6DU5-56	6DU5-56
	6DU5-48	4DU8-56	4DU5-56	6DU5-96	6DU5-96
	6DU5-96				

### (7) High Capacity

Compatible	e CIs	Compatible CIs	
4DS0-63	4DS0-63 4DU8-A,B or C 6DU8-A,B or C	4DS8-15J 6DU8-A	4DU8-A
4DS6-27	4DS6-27 4DU8-A,B or C 6DU8-A,B or C	4DS8-15K 4DU8-C 6DU8-B 6DU8-C	4DU8-B
4DS6-44	4DS6-44 4DU8-A,B or C 6DU8-A,B or C	4DS8-31 4DU8-A,B or C 6DU8-A,B or C	4DS8-31
4DS8-15	4DS8-15* 4DU8-B 6DU8-8	4DU8-A,B or C	4DU8-A,B or C

<sup>+</sup> Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company hub.

<sup>\*</sup> Available only as a cross connect of two individual channels of 1.544 Mbps facilities at a Telephone Company hub.

### 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.2 Special Access Service (Cont'd)

### 15.2.2 <u>Network Channel Interface (NCI) Codes</u> (Cont'd)

### (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

### (8) <u>Synchronous Optical Channel Service</u>

Compatible CIs		Compatible (	Compatible CIs		
4DS9-1S	4DU9-1S	02S0F-A	02S0F-A		
4DS9-1K	4DU9-1K	02S0F-B	02S0F-B		
		02S0F-C	02S0F-C		
		02S0F-D	02S0F-D		
		02S0F-E	02S0F-E		
		02S0F-F	02S0F-F		

### 15.3 <u>Directory Access Service</u>

### 15.3.1 <u>Interface Group and Premise Interface Codes</u>

When Directory Access Service is combined with Feature Group B, C or D Switched Access Service, the Premises Interface Code for the combination will be the available Premises Interface Code provided for the Feature Group B, C or D Switched Access Service ordered by the customer. Premises Interface Codes are described in 15.1.1(G) preceding.

When Directory Access Service is provided as a separate trunk group (not in combination with Switched Access Service) Interface Groups 2 through 10 as set forth in 15.1.1 preceding are available. Only the following Premises Interface Codes are available when Directory Access Service is provided as a separate trunk group:

4DS9-15	6EA2-E	4RV2-O
4DS9-31	6EA2-M	4AH5-B
4DS0-63	4SF3	4AH6-C
4DS6-44		4AH6-D
4DS6-27		

# 15. Access Service Interfaces and Transmission Specifications (Cont'd)

### 15.3 <u>Directory Access Service</u> (Cont'd)

### 15.3.2 <u>Standard Transmission Specifications</u>

Following is a matrix illustrating the transmission specifications available with Directory Access Service. Descriptions of the Standard Transmission Specifications, Type A and B, are set forth respectively in 15.1.2(E) and (F) preceding.

Directory Access Service Provided in	Transn Specifi	nission
Combination with Switched Access Service	Type A	Type B
<ul><li>Feature Group B</li><li>(Interface Groups 2 through 10)</li></ul>		X
- Feature Group C		X
- Feature Group D	X	
Directory Access Service Not Combined with Switched Access Service		
- Routed Direct to DA location (Interface Groups 2 through 10)		X
- Routed via an access tandem (Interface Groups 2 through 10)	X	

16. Reserved for Future Use

ISSUED: July 13, 2006

EFFECTIVE: July 17, 2006

### SUPPLEMENT NO. 6 TO TELEPHONE PA P.U.C. No. 8

WINDSTREAM PENNSYLVANIA, INC.

Section 17 Second Revised Sheet 1 Cancels First Revised Sheet 1

# INTRASTATE ACCESS SERVICES TARIFF

### 17. Rates and Charges

17.1	<u> </u>	Service Order and Switched Access Installation Charges		
			Rate	
1	17.1.1	Direct Trunked Transport Activated	\$115.00	
1	17.1.2	Trunk Group Conversion Charge	\$115.00	
1	17.1.3	Access Order – New Switched Access	\$71.00	
1	17.1.4	Service Date Change Charge - Switched Access	\$21.00	
		- Special Access	\$26.21	
1	17.1.5	Design Change Charge - Switched Access	\$21.00	
		- Special Access	\$26.21	
1	17.1.6	Reserved		
1	17.1.7	Interim NXX Translation Charge	\$71.00	
17.2 <u>S</u>	Switch	ed Access		
1	17.2.1	Carrier Common Line Charge (CC)		
		Per access line, per month: Originating Per access line, per month: Terminating	\$4.88 \$0.00	(D)

(D) Indicates Decrease

ISSUED: May 16, 2013 EFFECTIVE: July 2, 2013

Section 17 First Revised Sheet 2 Cancels Original Sheet 2

### INTRASTATE ACCESS SERVICES TARIFF

# 17. Rates and Charges (Cont'd)

# 17.2 <u>Switched Access Service</u> (Cont'd)

# 17.2.2 Local Transport

	cenium Access	Monthly Rate	Nonrecurring <u>Charge</u>	
<u> </u>		Kate	Charge	
-	Entrance Facility			
	Per Termination	¢ 15.47 (D)	<b>#215</b> 00	(D)
	- Voice Grade Two-Wire	\$ 15.47 (D)		(D)
	- Voice Grade Four-Wire	\$ 24.76 (D)		(D)
	- High Capacity DS1	\$ 111.02 (D)		(D)
	- High Capacity DS3	\$1,033.22 (D)	\$333.00	(D)
-	Direct Trunked Transport			
	- <u>Direct Trunked Facility</u>			
	Per Mile	ф 0.06 (D)		
	- Voice Grade	\$ 0.86 (D)		
	- High Capacity DS1	\$10.33 (D)		
	- High Capacity DS3	\$67.65 (D)		
	- <u>Direct Trunked Termination</u>			
	Per Termination	<b>.</b>		
	<ul> <li>Voice Grade</li> </ul>	\$ 11.61 (D)		
	- High Capacity DS1	\$ 12.40 (D)		
	- High Capacity DS3	\$723.26 (I)		
-	Multiplexing			
	Per Arrangement			
	- DS3 to DS1	\$302.10 (D)		
	- DS1 to Voice	\$149.70 (D)		
-	Carrier Identification Parameter (CIP)			
	<ul> <li>Voice Grade</li> </ul>	\$ 4.08		
	- DS1	\$ 97.92		
	- DS3	\$2,741.76		
-	Tandem Switched Transport			
	<ul> <li>Tandem Switched Facility</li> </ul>	\$0.000225	(Originating)	(C)
	Per Access Minute Per Mile	\$0.000140	(Terminating)	(D)
	<ul> <li>Tandem Switched Termination</li> </ul>		(Originating)	(C)
	Per Access Minute Per Termination		(Terminating)	(D)
	<ul> <li>Tandem Switching</li> </ul>		(Originating)	(C)
	Per Access Minute Per Tandem	\$0.001574	(Terminating)	(I)
	<ul> <li>Common Transport Multiplexing</li> </ul>			(C)
	Per Access Minute Per Multiplexer	\$0.000022	(Terminating)	(C)
-	Tandem Trunk Port			(C)
	Per Port			
	<ul> <li>Voice Grade</li> </ul>	\$ 14.62		
	- High Capacity DS1	\$ 5.12		(C)
-	Residual Interconnection Charge			
	Per Access Minute	\$0.001518 (	(Originating)	(C)
	Per Access Minute		(Terminating)	(D)

ISSUED: May 16, 2013 EFFECTIVE: July 2, 2013

(C) Indicates Change

(I) Indicates Increase

(D) Indicates Decrease

# SUPPLEMENT NO. 6 TO TELEPHONE PA P.U.C. No. 8 WINDSTREAM PENNSYLVANIA, INC.

Section 17 First Revised Sheet 3 Cancels Original Sheet 3

### INTRASTATE ACCESS SERVICES TARIFF

### 17. Rates and Charges (Cont'd)

### 17.2 Switched Access Service (Cont'd)

### 17.2.2 Local Transport (Cont'd)

1	R	a	t	_
	•	71		

### **Non Premium Access**

Residual Interconnection Charge

Per Access Minute Originating \$0.000683 (C)
Per Access Minute Terminating \$0.00000 (D)

**Network Blocking Per Blocked Call** 

Applies to FGD only \$0.0076

### **Common Channel Signaling Network Connection**

# Signaling Network Access Link

- Signaling Mileage
Facility per Mile \$ 1.98

- Signaling Mileage Termination per Termination \$19.32

- Signaling Entrance Facility
per Facility \$46.92

### **800 Data Base Access Service Queries**

Per Completed Query

Basic \$0.0010 Vertical Feature \$0.0012

(D) Indicates Decrease

(C) Indicates Change

ISSUED: May 16, 2013 EFFECTIVE: July 2, 2013

\$2.04

(D)

# INTRASTATE ACCESS SERVICES TARIFF

# 17. <u>Rates and Charges</u> (Cont'd)

# 17.2 Switched Access

- DS1

17.2.3	End Office	_	
(A)	Local Switching	<u>Rate</u>	
	Premium - Local Switching 1, per minute Originating - Local Switching 1, per minute Terminating	\$0.008116 \$0.0013818	(D)
	<ul><li>Local Switching 2, per minute Originating</li><li>Local Switching 2, per minute Terminating</li></ul>	\$0.008116 \$0.0013818	(D)
	Non-Premium - Local Switching 1, per minute Originating - Local Switching 1, per minute Terminating	\$0.003652 \$0.000000	
	<ul><li>Local Switching 2, per minute Originating</li><li>Local Switching 2, per minute Terminating</li></ul>	\$0.003652 \$0.000000	
(B)	Information Surcharge		
	Premium - Per minute Originating - Per minute Terminating	\$0.00063 \$0.00000	
	Non-Premium - Per minute Originating - Per minute Terminating	\$0.000284 \$0.000000	
(C)	Common Trunk Port		
	- Per minute Terminating	\$0.0002774	(D)
(D)	End Office Trunk Port		

(D) Indicates Decrease

ISSUED: May 18, 2015 EFFECTIVE: July 1, 2015

# 17. Rates and Charges (Cont'd)

### 17.2 <u>Switched Access Service</u> (Cont'd)

### 17.2.4 <u>Directory Assistance Service</u>

Rate

(A) <u>Directory Assistance Service</u>

\$0.4963

\$0.0518

\$0.1117

A Directory Assistance Service Charge applies for each call to Directory Assistance Service.

### (B) Credit Allowance for Uncompleted DA Calls

In addition to the credit allowances for Directory Assistance Service Call and Directory Transport as set forth respectively in 9.4.8(A) and (B) preceding, there is also a credit allowance for the Switched Access Service portion in the originating LATA of such DA call. The credit will be as set forth following:

(1) Credit per call
when Switched Access Service is billed
using nonpremium per minute rates

(2) Credit per call
when Feature Group A or B Switched
Access Service is billed using premium
per minute rates

(3) Credit per call \$0.1117 when Feature Group C or D Switched Access Service is billed using premium per minute rates

Section 17 First Revised Sheet 6 Cancels Original Sheet 6

# INTRASTATE ACCESS SERVICES TARIFF

# 17. Rates and Charges (Cont'd)

# 17.2 <u>Switched Access Service</u> (Cont'd)

# 17.2.5 <u>Assumed Minutes of Use</u>

<u>Per</u>	<u>Month</u>	Assumed Minutes Per Month
A.	Feature Group A, Two Way Calling (1510 Originating, 2685 Terminating)	4195
B.	Feature Group A, Originating Only	1510
C.	Feature Group A, Terminating Only	2685
D.	Feature Group B, Two Way Calling (3132 Originating, 5568 Terminating)	8700
E.	Feature Group B, Originating Only	3132
F.	Feature Group B, Terminating Only	5568

### 17.2.6 Toll VoIP-PSTN Traffic

(C)

		<u>Rate</u>	
(A)	Tandem Switched Facility  – per access minute per mile	\$0.000140	
(B)	Tandem Switched Termination  – per access minute per Termination	\$0.000584	
(C)	Tandem Switching  – per access minute per Tandem	\$0.001574	
(D)	Tandem Switched Multiplexing  – per access minute per Multiplexer	\$0.000022	
(E)	Local Switching  – per access minute	\$0.003024	
(F)	End Office Common Trunk Port  – per access minute	\$0.000607	(C)

ISSUED: December 23, 2011 EFFECTIVE: February 21, 2012

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u>

17.3.1 <u>Access Connections</u>	Manalala	Nan Danini
Each:	Monthly <u>Rates</u>	Non-Recurring <u>Charges</u>
2-Wire (for use with NB1-5, VG1-13 and AP1-4)	\$ 3.67	
4-Wire (for use with NB4-5, VG1-3, 5-10, and DA1-4 with DU facility interface)	\$7.98	
Group (for use with WA1 & WA1T two are required for WA1T)	ICB rates and	charges apply.
Supergroup (for use with WA2)	ICB rates and	charges apply.
19.2 kbps (for use with WD1)	ICB rates and	charges apply.
50 kbps (for use with WD2)	ICB rates and	charges apply.
230.4 kbps (for use with WD3)	ICB rates and	charges apply.
56 kbps (for use with WD4)	ICB rates and	charges apply.
DS1 - 1.544 Mbps (for use with HC1)	\$102.35	
DS1C - 3.152 Mbps (for use with HC1C)	ICB rates and	charges apply.
DS2 - 6.312 Mbps (for use with HC2)	ICB rates and	charges apply.
DS3 - 44.736 Mbps (for use with HC3)	\$2,170.47	\$370.00
DS4 - 274.176 Mbps (for use with HC4)	ICB rates and	charges apply.

# 17. <u>Rates and Charges (Cont'd)</u>

# 17.3 <u>Special Access Service (Cont'd)</u>

# 17.3.2 <u>Channel Mileage</u>

	Monthly Rates			
Each:	Mileage <u>Band</u>	Channel Mileage Terminatio	<u>n</u>	Channel Mileage Facility
2-Wire - Metallic (for use with NB1-3)	All	None	+	\$ 5.80
75 Baud (for use with NB4)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50-100 over 100	\$10.19 21.99 29.67 29.67 46.67 65.17 94.17	+ + + + + +	\$5.90 2.95 1.99 1.31 .94
150 Baud (for use with NB5)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50-100 over 100	\$ 7.81 8.73 20.65 20.65 29.65 57.65 77.65	+ + + + + +	\$3.86 3.63 2.14 2.14 1.78 1.22 1.02
2-Wire/4-Wire Voice (for use with VG1-13) {1}	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$ 4.42 17.03 37.88 47.80 72.63 86.52 121.77	+ + + + + +	\$8.35 5.20 2.60 1.98 .99 .70

# 17. <u>Rates and Charges (Cont'd)</u>

# 17.3 <u>Special Access Service (Cont'd)</u>

# 17.3.2 <u>Channel Mileage</u>

	N	Ionthly Rates	
Each:	Mileage <u>Band</u>	Channel Mileage <u>Termination</u>	Channel Mileage <u>Facility</u>
3.5 kHz Audio (for use with AP1)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$ 8.17 + 11.01 + 11.01 + 18.85 + 18.85 + 23.35 + 49.35 +	\$3.71 3.00 3.00 2.51 2.51 2.42 2.16
5 kHz Audio (for use with AP2)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$ 8.72 + 8.72 + 15.04 + 19.79 + 32.29 +	\$4.26 4.26 3.47 3.47 3.28 3.03 3.03
8 kHz Audio (for use with AP3)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$10.82 + 10.82 + 22.34 + 28.42 + 40.92 + 58.92 +	\$6.69 6.69 5.25 4.87 4.87 4.62 4.44
15 kHZ Audio (for use with AP4)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$22.57 + 22.57 + 22.57 + 38.57 + 42.07 + 56.07 +	\$9.33 9.33 9.33 8.33 8.19 7.91

{1} Also used to provide NB4 and NB5 on 43 Carrier, using 43 CXR to NB4 and NB5 multiplexing

**Section 17** 

# INTRASTATE ACCESS SERVICES TARIFF

#### Rates and Charges (Cont'd) **17.**

#### 17.3 **Special Access Service** (Cont'd)

#### **Channel Mileage** (Cont'd) 17.3.2

		Monthly Rates	
Each:	Mileage <u>Band</u>	Channel Mileage <u>Termination</u>	Channel Mileage <u>Facility</u>
Group (for use with WA1 & WA1T. Two are required for WA1T)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
Supergroup (for use with WA2)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
19.2 kbps (for use with WD1)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
50.0 kbps (for use with WD2)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
230.4 kbps (for use with WD3)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
56.0 kbps (for use with WD4)	ALL	ICB rates and charges apply.	ICB rates and charges apply.

# 17. <u>Rates and Charges (Cont'd)</u>

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.2 <u>Channel Mileage</u> (Cont'd)

	Monthly Rates		
Each:	Mileage <u>Band</u>	Channel Mileage <u>Termination</u>	Channel Mileage <u>Facility</u>
Digital Data 1 (for use with DA1)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$45.05 + 45.05 + 49.21 + 49.21 + 54.46 + 59.46 +	1.23 .71 .71 .50
Digital Data 2 (for use with DA2)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$39.14 + 39.14 + 44.66 + 44.91 + 51.91 +	1.46 .77 .77 .76 .62
Digital Data 3 (for use with DA3)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$47.21 + 47.21 + 51.77 + 54.49 + 54.49 + 60.49 +	1.37 .80 .63 .63
Digital Data 4 (for use with DA4)	0-4 over 4-8 over 8-16 over 16-25 over 25-50 over 50- 100 over 100	\$ 75.08 + 93.44 + 111.84 + 130.24 + 156.24 + 176.24 + 176.24	4.60 2.30 1.15 .71 .41

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.2 <u>Channel Mileage</u> (Cont'd)

	Monthly Rates		
Each:	Mileage Band	Channel Mileage <u>Termination</u>	Channel Mileage <u>Facility</u>
DS1-1.544 Mbps {1} (for use with HC1)	ALL	\$ 38.02 +	\$15.09
DS1C-3.152 Mbps {1} (for use with HC1C)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
DS2-6.312 Mbps {1} (for use with HC2)	ALL	ICB rates and charges apply.	ICB rates and charges apply.
DS3-44.736 Mbps {1} (for use with HC3)	ALL	\$631.17	\$143.21
DS4-274.176 Mbps {1} (for use with HC4)	ALL	ICB rates and charges apply.	ICB rates and charges apply.

Additional applications are obtainable through the use of suitable multiplexing at the Hub.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u>

# (A) <u>Facility Interface Combinations</u>

	(1)			rges Per Service
IC	End <u>User</u>	Monthly Rates per <u>Termination</u>	First <u>Service</u>	Additional <u>Service</u>
DC (for use with NB1-3)	DC	None	\$163.59	\$ 78.72
TT (for use with NB4)	TT	\$ 2.63	318.45	184.87
DB-10 (for use with NB4)	TT	.36	290.78	166.49
DB-43 (for use with NB4) {1}	TT	7.55	272.43	158.70
DB-10 (for use with NB5)	IA	.36	290.78	166.49
DB-43 (for use with NB5) {1}	IA	7.55	272.43	158.70
AH (for use with NB2) {2}	DC	10.29	225.05	119.99
AH (for use with NB4) {2}	TT	12.72	260.75	155.44
AH (for use with NB5) {2}	IA	10.29	260.75	155.44
DS (for use with NB2) {2}	DC	\$ 5.05	\$ 220.03	\$ 115.49
DS (for use with NB4) {2}	TT	\$ 7.48	\$ 272.43	\$ 158.70
DS (for use with NB5) {2}	TT	\$ 5.05	\$ 272.43	\$ 158.70

<sup>{1}</sup> Requires Voice to Telegraph multiplexer.

<sup>{2}</sup> Requires intermediate multiplexing.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

### (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	<u>Voice Grade Services</u> (Cont'd) <u>Nonrecurring Charges Per Service</u>		
IC	End <u>User</u>	Monthly Rates per Termination	First Service	Additional Service
AB (for use with VG2)	AC	\$ 17.77	\$ 90.85	\$ 62.34
AB (for use with VG2)	SF	21.56	146.89	90.51
AH {1} (for use with VG2)	AC	19.30	68.65	39.23
AH {1} (for use with VG5, 6, 10 & 12)	DA	6.80	73.62	38.91
AH {1} (for use with VG5)	DE	19.72	37.38	17.41
AH {1} (for use with VG9)	DX	16.65	82.97	48.26
AH {1} (for use with VG3, 7 & 8)	DY	17.52	78.05	43.34
AH {1} (for use with VG3, 7, 8, & 9)	EA	22.41	82.97	48.26
AH {1} (for use with VG3, 7, 8, & 9)	EB	22.41	82.97	48.26
AH {1} (for use with VG1)	GO	25.58	63.31	35.88
AH (for use with VG1,3&7)	GS	\$ 26.09	\$63.31	\$ 35.88
AH (for use with VG2&7)	LA	20.75	79.74	47.16
AH (for use with VG2&7)	LB	20.75	68.02	38.60

{1} Requires intermediate Group to Voice Multiplexer.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

(2	)	Voice Grade Service		
		<u>Nor</u> Monthly	recurring Char	ges Per Service
	End	Rates per	First	Additional
IC	User	Termination	Service	Service
AH {1}(for use with VG2&7)	LC	20.75	68.65	39.23
AH {1} (for use with VG1, 2&7)	LO	20.75	68.65	39.23
AH {1} (for use with VG2)	LR	20.75	61.34	33.92
AH {1} (for use with VG1,2, 3,7 & 8)	LS	19.30	61.34	33.92
AH {1} (for use with VG1,2, 5,6,7,& 9)	NO	13.61	55.77	28.34
AH {1} (for use with VG3&7)	RV	15.43	68.65	39.23
AH {1} (for use with VG2,3, 7,8,&9)	SF	23.09	82.97	48.26
AH {1} (for use with VG11)	TF	13.61	55.77	28.34
DA (for use with VG10 & 13)	DA	\$ 5.03	\$ 158.90	\$ 99.19
DB (for use with VG6, 10 & 12)	DA	5.03	158.90	99.19
DB (for use with VG6)	NO	6.81	115.83	70.90
DD (for use with VG5)	DE	13.97	113.72	70.17

{1} Requires intermediate Group to Voice Multiplexer.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)			rges Per Service
IC	End <u>User</u>	Monthly Rates per <u>Termination</u>	First <u>Service</u>	Additional <u>Service</u>
DS (for use with VG5, 6,10 & 12) {1}	DA	4.75	75.41	41.24
DS (for use with VG5) {1}	DE	13.96	35.76	16.33
DS (for use with VG9) {1}	DX	11.41	69.60	35.42
DS (for use with VG3, 7, & 8) {1}	DY	12.28	69.60	35.42
DS (for use with VG3, 7, 8, & 9) {1}	EA	17.17	70.61	36.43
DS (for use with VG3, 7, 8 & 9) {1}	EB	\$ 17.17	\$ 70.61	\$ 36.43
DS (for use with VG1) {1}	GO	20.34	50.85	23.97
DS (for use with VG1, 3, & 7) {1}	GS	20.85	50.85	23.97
DS (for use with VG2, & 7) {1}	LA	15.51	74.34	42.29

ISSUED: July 13, 2006

<sup>{1}</sup> Requires intermediate DS1 to Voice Multiplexer.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

### (A) <u>Facility Interface Combinations</u> (Cont'd)

(2)		Voice Grade Services (Cont'd)		
		<u>No</u>	onrecurring Cha	rges Per Service
		Monthly		
	End	Rates per	First	Additional
<u> </u>	<u>User</u>	<b>Termination</b>	<u>Service</u>	<u>Service</u>
DS (for use with VG2 & 7) {1	} LB	15.51	65.46	36.57
DS (for use with VG2 & 7) {1	} LC	15.51	65.20	36.32
DS (for use with VG1, 2 & 7) {1}	LO	15.51	65.20	36.32
DS (for use with VG2) {1}	LR	13.81	50.85	23.97
DS (for use with VG1, 2, 3, 7 & 8) {1}	LS	15.76	50.85	23.97
DS (for use with VG1, 2, 4, 5, 6, 7, 9 & 13) {1}	NO	8.37	55.85	28.96
DS (for use with VG3, & 7) {1}	RV	\$10.19	\$ 65.20	\$ 36.32
DS (for use with VG2, 3, 7, 8, & 9) {1}	SF	17.85	70.61	36.43
DS (for use with VG11)	TF	8.37	55.85	28.96
DX (for use with VG9) {1}	DX	13.07	133.96	79.51
DX (for use with VG3, 7, & 9) {1}	DY	13.94	133.96	79.51
DX (for use with VG3, 7, 8, & 9) {1}	EA	18.48	146.41	90.51

{1} Requires intermediate DS1 to Voice Multiplexer.

ISSUED: July 13, 2006

EFFECTIVE: July 17, 2006

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	<u>Voice Grade Services</u> (Cont'd) <u>Nonrecurring Charges Per Service</u>		
		Monthly	nrecurring Char	ges i ei beiviee
	End	Rates per	First	Additional
<u>IC</u>	<u>User</u>	<u>Termination</u>	<u>Service</u>	<u>Service</u>
DX (for use with VG3, 7, 8 & 9) {1}	ЕВ	18.48	146.41	90.51
DX (for use with VG2 & 7) {1}	LA	16.83	153.42	99.17
DX (for use with VG2 & 7) {1}	LB	16.83	138.07	88.16
DX (for use with VG2, & 7) {1}	LC	16.83	132.49	84.65
DX (for use with VG2, & 7) {1}	LO	\$ 16.83	\$ 132.49	\$ 84.65
DX (for use with VG2, 3, 7, & 9) {1}	LS	18.41	130.97	81.96
DX (for use with VG3 & 7) {1}	RV	11.50	132.49	84.65
DX (for use with VG2, 3, 7, 8, & 9) {1}	SF	19.16	146.41	90.51
DY (for use with VG13)	DY	13.93	133.96	79.51
EA (for use with VG2) {1}	AC	20.26	132.49	84.65

{1} Requires intermediate DS1 to Voice Multiplexer.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

(C	2)	Voice Grade Service		
		·	nrecurring Char	ges Per Service
	End	Monthly Rates per	First	Additional
IC	<u>User</u>	<u>Termination</u>	<u>Service</u>	<u>Service</u>
EA (for use with VG9) {1}	DX	17.61	161.62	97.89
EA (for use with VG3, 7, 8 & 13) {1}	DY	18.48	133.96	79.51
EA (for use with VG3, 7, 8, 9 & 13) {1}	EA	22.50	162.64	98.90
EA (for use with VG3, 7, 8, 9, & 13) {1}	EB	\$ 22.50	\$ 162.64	\$ 98.90
EA (for use with VG2, & 7) {1}	LA	21.71	153.42	99.17
EA (for use with VG2 & 7) {1}	LB	21.71	138.07	88.16
EA (for use with VG2 & 7) {1}	LC	21.71	132.49	84.65
EA (for use with VG2 & 7) $\{1\}$	LO	21.71	132.49	84.65
EA (for use with VG2, 3, 7, & 8) {1}	LS	23.30	130.97	81.96
EA (for use with VG3 & 7) {1}	RV	22.12	132.49	84.65
EA (for use with VG2, 3, 7, 8 & 9) {1}	SF	24.05	146.41	90.51

{1} Requires intermediate DS1 to Voice Multiplexer.

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

### (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	Voice Grade Services (Cont'd) Nonrecurring Charges Per Service		
		<u>No</u> Monthly	nrecurring Chai	rges Per Service
	End	Rates per	First	Additional
IC	<u>User</u>	<u>Termination</u>	<u>Service</u>	<u>Service</u>
EB (for use with VG2) {1}	AC	20.26	132.49	84.65
EB (for use with VG9) {1}	DX	17.62	161.62	97.89
EB (for use with VG3, 7, 8 & 13) {1}	DY	\$ 18.48	\$ 133.96	\$ 79.51
EB (for use with VG3, 7, 8, 9 & 13) {1}	EA	23.37	162.64	98.90
EB (for use with VG3, 7, 8, 9 & 13) {1}	EB	23.37	162.64	98.90
EB (for use with VG2 & 7) {1}	LA	21.71	153.42	99.17
EB (for use with VG2 & 7) {1}	LB	21.71	138.07	88.16
EB (for use with VG2, & 7) {1}	LC	21.71	132.49	84.65
EB (for use with VG2 & 7) {1	} LO	21.71	132.49	84.65
EB (for use with VG2, 3, 7, & 8) {1}	LS	23.30	130.97	81.96
EB (for use with VG3 & 7) {1}	RV	16.39	132.49	84.65

{1} Requires intermediate DS1 to Voice Multiplier

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	Voice Grade Services (Cont'd) Nonrecurring Charges Per Service		
IC	End <u>User</u>	Monthly Rates per <u>Termination</u>	First <u>Service</u>	Additional <u>Service</u>
EB (for use with VG3, 7, 8, &9) {1}	SF	\$ 24.05	\$ 146.41	\$ 90.51
EC (for use with VG3, 7 & 8) {1}	DY	18.48	133.96	79.51
EC (for use with VG3, 7 & 8) {1}	EA	23.37	162.64	98.90
EC (for use with VG3, 7 & 8) {1}	EB	23.37	162.64	98.90
EC (for use with VG3, 7 & 8) {1}	SF	24.05	146.41	90.51
EX (for use with G3, & 7) {1}	GS	20.94	130.97	82.23
EX (for use with VG2 &7) {1}	LA	15.60	153.42	99.17
EX (for use with VG2 & 7) {1}	LB	15.60	138.07	88.15
EX (for use with VG2 & 7) {1}	LC	15.60	132.49	84.65
EX (for use with VG1, 2 & 7)	LO	15.60	132.49	84.65
EX (for use with VG2) {1}	LR	\$13.90	\$132.49	\$84.65

{1} Requires intermediate DS1 to Voice Multiplier

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

(2)		Voice Grade Service		
		·	nrecurring Char	ges Per Service
	End	Monthly Rates per	First	Additional
IC	User	<u>Termination</u>	Service	Service
EX (for use with VG1,2,3 &7) {1}	LS	17.19	130.97	81.96
EX (for use with VG1, 3 &7) {1}	SF	17.94	146.41	90.51
GO (for use with VG1, 3&7) {1}	GS	13.90	96.48	61.23
GO (for use with VG3 & 7) {1}	SF	28.09	146.41	90.51
GS (for use with VG1) {1}	GO	30.58	96.48	61.23
LO (for use with VG1,2,3,7 &8) {1}	LS	22.52	96.12	60.91
LO (for use with VG2,3, &7) {1}	SF	23.27	146.41	90.51
LR (for use with VG 2)	LR	17.52	96.41	57.83
LR (for use with VG 2)	SF	21.55	146.41	90.51
LS (for use with VG2, 7 & 13)	LA	20.93	142.26	72.65
LS (for use with VG2, 7 & 13) {1}	LB	\$ 20.93	\$ 138.69	\$ 73.14
LS (for use with VG2, 7 & 13) {1}	LC	20.93	126.45	59.77

{1} Requires intermediate DS1 to Voice Multiplier

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	Voice Grade Service		
		<u>No</u>	onrecurring Cha	arges Per Service
		Monthly		
	End	Rates per	First	Additional
<u>IC</u>	<u>User</u>	<u>Termination</u>	<u>Service</u>	<u>Service</u>
LS (for use with VG1,2, 7 & 13){1}	LO	20.93	126.45	59.77
LS (for use with VG2 & 3){1}	SF	23.27	146.41	90.51
NO (for use with VG6, 10, 12 & 13){1}	DA	6.81	115.34	70.90
NO (for use with VG1, 2, 4, 5, 6, 7 & 9){1}	NO	6.65	106.92	66.89
RV (for use with VG3 & 7) {1}	RV	10.28	96.48	61.23
RV (for use with VG3 & 7) {1}	SF	17.94	146.41	90.51
SF (for use with VG2) {1}	AC	20.98	132.49	84.65
SF (for use with VG9)	DX	18.34	146.41	90.51
SF (for use with VG3, 7, & 8) {1}	DY	\$ 19.21	\$ 133.96	\$ 79.51
SF (for use with VG3, 7, 8 & 9) {1}	EA	24.10	146.41	90.51
SF (for use with VG3, 7, 8 & 9) {1}	EB	24.10	146.41	90.51

{1} Requires intermediate DS1 to Voice Multiplier

# 17. Rates and Charges (Cont'd)

# 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (A) <u>Facility Interface Combinations</u> (Cont'd)

	(2)	·		arges Per Service
IC	End <u>User</u>	Monthly Rates per <u>Termination</u>	First <u>Service</u>	Additional <u>Service</u>
SF (for use with VG1, 3 & 7) {1}	GS	27.78	131.87	82.23
SF (for use with VG2 & 7) {1}	LA	22.44	153.42	99.17
SF (for use with VG2 & 7) {1}	LB	22.44	138.07	88.16
SF (for use with VG2 & 7) {1}	LC	22.44	132.49	84.65
SF (for use with VG1, 2 & 7) {1}	LO	22.44	132.49	84.65
SF (for use with VG2) {1}	LR	20.74	130.97	81.96
SF (for use with VG2, 3, 7 & 8) {1}	LS	\$ 24.03	\$ 130.97	\$ 81.96
SF (for use with VG3 & 7) {1}	RV	17.12	132.49	84.65
SF (for use with VG2, 3, 7, 8 & 9) {1}	SF	24.78	138.65	83.70
TF (for use with VG11) {1}	TF	6.65	105.70	66.89

{1} Requires intermediate DS1 to Voice Multiplier

# 17. Rates and Charges (Cont'd)

### 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

### (A) <u>Facility Interface Combinations</u> (Cont'd)

# (3) <u>Program Audio Services</u> Nonrecurring Charges Per <u>Service Termination</u>

		Monthly Rates per		
IC	End <u>User</u>	Service Termination	First <u>Service</u>	Additional Service
PG3 (for use with AP1) {1}	PG3	\$ 3.66	\$1129.73	\$ 812.90
DS (for use with AP1) {1}	PG3	3.66	976.46	856.50
AH (for use with AP1) {2}	PG3	3.66	989.17	868.14
PG5 (for use with AP2)	PG5	18.82	1129.76	812.90
DS (for use with AP2) {1}	PG5	18.82	976.46	856.50
AH (for use with AP2) {2}	PG5	18.82	989.17	868.14
PG8 (for use with AP3)	PG8	18.02	1129.76	812.90
DS (for use with AP3) {1}	PG8	18.02	976.46	856.50
AH (for use with AP3) {2}	PG8	\$ 18.02	\$ 989.17	\$ 868.14
PG1 (for use with AP4)	PG1	89.69	1129.76	812.90
DS (for use with AP4) {1}	PG1	89.69	976.46	856.50

Requires intermediate DS1 to Voice Multiplexer. (One voice channel for AP1, two voice channels for AP2, three voice channels for AP3 and six voice channels for AP4).

<sup>{2}</sup> Requires intermediate Group to Voice Multiplexer.

#### **17.** Rates and Charges (Cont'd)

#### 17.3 **Special Access Service** (Cont'd)

6TV-5 (for use with TV2)

#### 17.3.3 Features and Functions (Cont'd)

Facility Interface Combinations (Cont'd) (A)

	(4) <u>V</u>	Monthly Rates per	Nonrecurring Charg Service Termina	
IC	End <u>User</u>	Service <u>Termination</u>	First <u>Service</u>	Additional <u>Service</u>
TV-1 (for use with TV1)	TV-15	\$42.36	\$ 13.10	None
TV-2 (for use with TV1)	TV-15	\$46.16	\$ 13.10	None
TV-15 (for use with TV1)	TV-15	\$64.42	\$ 13.10	None
4TV-5 (for use with TV2)	4TV-5	\$35.33	\$ 13.10	None

\$53.00

\$ 13.10

None

6TV-5

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

(A) <u>Facility Interface Combinations</u> (Cont'd)

	(5) <u>W</u>	Wideband Analog Services Nonrecurring Charges Per		
		Service Termination		
IC	End <u>User</u>	Monthly Rates per Service Termination	First <u>Service</u>	Additional <u>Service</u>
AH-D (for use with WA1)	АН-В	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
AH-C (for use with WA1)	АН-В	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
AH-B (for use with WA1)	АН-В	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
AH-C (for use with WA2)	АН-С	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
AH-D (for use with WA2)	АН-С	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
AH-D (for use with WA2A)	AH-D	ICB rates and charges	ICB rates and charges	ICB rates and charges

apply

apply

apply

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

(A) <u>Facility Interface Combinations</u> (Cont'd)

	(5) <u>Y</u>	Wideband Analog Services (Cont'd)  Nonrecurring Charges Per  Service Termination		
		Monthly Rates per		
	End	Service	First	Additional
IC	<u>User</u>	<b>Termination</b>	<u>Service</u>	<u>Service</u>
WD-1 (for use with WA3)	WA-1	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
WD-2 (for use with WA3)	WA-1	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
WD-3 (for use with WA4)	WA-2	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply

#### **17.** Rates and Charges (Cont'd)

#### 17.3 **Special Access Service** (Cont'd)

#### 17.3.3 Features and Functions (Cont'd)

(A) Facility Interface Combinations (Cont'd)

	(6) <u>W</u>	(6) <u>Wideband Digital Services</u>		
		No	nrecurring Charg	
		N.C (1, 1	Service Termina	tion_
		Monthly		
	End	Rates per Service	First	Additional
IC	User	<u>Termination</u>	Service	Service
	<u>USEI</u>	1 erinnation	<u>Service</u>	Service
WB-19S (for use with WD1)	WC-19	ICB rates	ICB rates	ICB rates
,		and charges	and charges	and charges
		apply	apply	apply
		11.7	11.7	11.5
WB-18S (for use with WD1)	WC-18	ICB rates	ICB rates	ICB rates
		and charges	and charges	and charges
		apply	apply	apply
WD 10A (for a 24 WD1)	WC 10	ICD	ICD	ICD
WB-19A (for use with WD1)	WC-19	ICB rates and charges	ICB rates and charges	ICB rates and charges
		and charges apply	and charges apply	and charges
		арргу	аррту	арргу
WB-50S (for use with WD2)	WC-50	ICB rates	ICB rates	ICB rates
,		and charges	and charges	and charges
		apply	apply	apply
WB-40S (for use with WD2)	WC-40	ICB rates	ICB rates	ICB rates
		and charges	and charges	and charges
		apply	apply	apply
WB-50A (for use with WD2)	WC-50	ICB rates	ICB rates	ICB rates
MD-30A (101 use with WD2)	W C-30	and charges	and charges	and charges
		apply	and charges	and charges
		"PP1J	uppij	uppij

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

(A) <u>Facility Interface Combinations</u> (Cont'd)

(6) <u>Wideband Digital Services</u> (Cont'd)

Nonrecurring Charges Per

<u>Service Termination</u>

	End	Monthly Rates per Service	First	Additional
IC	<u>User</u>	<u>Termination</u>	<u>Service</u>	<u>Service</u>
WB-23S (for use with WD3)	WC-23S	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
WB-23A (for use with WD3)	WC-23	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
WB-64 (for use with WD4)	DU-56	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DO (for use with WD4)	DU-56	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

(7)

## (A) <u>Facility Interface Combinations</u> (Cont'd)

**Digital Data Access Services** 

		No	onrecurring Char	ges Per
			Service Termin	<u>ation</u>
		Monthly		
		Rates per		
	End	Service	First	Additional
IC	User	Termination	Service	Service
			·	<del></del>
DU-24 (for use with DA1)	DU-24	None	\$ 1207.53	\$ 878.93
DS (for use with DA1) {1}	DU-24	None	1026.52	900.06
DU-48 (for use with DA2)	DU-48	None	1208.05	879.39
DS (for use with DA2) {1}	DU-48	None	1026.82	900.33
DU-96 (for use with DA3)	DU-96	None	1209.09	880.33
DS (for use with DA3) {1}	DU-96	None	1027.33	900.79
DU-56 (for use with DA4)	DU-56	\$ 11.71	1241.04	1086.49
DS (for use with DA4) {1}	DU-56	20.40	1053.42	926.27

[1] Digital Data Carrier Multiplexing Equipment is Required.

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

(A) <u>Facility Interface Combinations</u> (Cont'd)

(	(8) <u>Hi</u>	gh Capacity Servi		
			nrecurring Charg Service Termina	
		Monthly	Bervice Termina	<u> </u>
	End	Rates per Service	First	Additional
IC	User	Termination	Service	Service
DS-15 (for use with HC1)	DU	\$ 530.67	\$ 287.93	\$ 162.00
DS-31 (for use with HC1C) {1}	DS-31	\$ 532.02	\$ 287.93	\$ 162.00
DS-31 (for use with HC1C)	DS-15	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-63 (for use with HC2) {1}	DS-63	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-63(for use with HC2)	DS-15	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-44 (for use with HC3) {1}	DS-44	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-44 (for use with HC3)	DS-15	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-27 (for use with HC4)	DS-27	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply
DS-27 (for use with HC4)	DS-15	ICB rates and charges apply	ICB rates and charges apply	ICB rates and charges apply

Available only from an IC terminal location to another IC terminal location.

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

#### (B) <u>Voice Grade Performance</u>

### Nonrecurring Charges

Monthly Rates {1}	First Service {1	Additional Service {1}
\$ 5.72	\$ 355.11	\$ 187.21
5.72	355.11	187.21
5.72	355.11	187.21
5.72	361.12	189.82
5.72	355.46	189.82
5.72	361.12	189.82
5.72	361.12	189.82
5.72	364.89	189.82
5.72	364.89	189.82
5.72	355.46	189.82
5.72	361.12	189.82
5.72	361.12	189.82
5.72	355.11	187.21
	\$ 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72 5.72	Rates {1}       Service {1}         \$ 5.72       \$ 355.11         5.72       355.11         5.72       355.11         5.72       361.12         5.72       361.12         5.72       361.12         5.72       364.89         5.72       364.89         5.72       355.46         5.72       361.12         5.72       361.12         5.72       361.12

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The monthly rates and nonrecurring charges apply on a per two-point service or each section (i.e., mid link or end link) of a multipoint service basis.

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

## (C) <u>Hub Functions</u>

(1) <u>Multiplexing</u>	Monthly <u>Rates</u>	Non-Recurring <u>Charges</u>
DS4 to DS1: An arrangement that provides a 274.176 Mbps capacity to multiplex, on a digital time division basis, 168 DS1 channels. (available with HC4) - Per arrangement	\$2815.56	\$1465.73
DS3 to DS1: An arrangement that provides a 44.736 Mbps capacity to multiplex, on a digital time division basis, 28 DS1 channels. (available with HC3) - Per arrangement	299.92	370.68
DS2 to DS1: An arrangement that provides a 6.312 Mbps capacity to multiplex, on a digital time division basis, four DS1 channels. (available with HC2) - Per arrangement	99.92	182.96
Mastergroup to Supergroup: An arrangement that provides a Mastergroup capacity (600) channels to multiplex, on a frequency division basis, ten Supergroups (60 channels each). (available with WA2A) - Per arrangement	ICB rates and charges apply	ICB rates and charges apply
DS1C to DS1: An arrangement that provides a 3.152 Mbps capacity to multiplex, on a digital time division basis, two DS1 channels. (available with HC1C) - Per arrangement	\$20.69	\$167.32

## 17. Rates and Charges (Cont'd)

### 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

## (C) <u>Hub Functions</u> (Cont'd)

(1) <u>Multiplexing</u> (Cont'c	l) Monthly Rates	Non-Recurring Charges
Supergroup to Group: An arrangement that provides a Supergroup capacity (60) channels to multiplex, on a frequency division basis, five Groups (12 channels each). (available with WA2) - Per arrangement	ICB rates and charges apply	ICB rates and charges apply
Group to DS1: An arrangement that provides two group capabilities (i.e., WA1T) to multiplex to a DS1 level. (arrangement with WA1T) - Per arrangement	ICB rates and charges apply	ICB rates and charges apply
DS1 to Voice or Digital Data: An arrangement that provides a 1.544 Mbps capacity to multiplex, on a digital time division basis, 24 Voice or Digital Data {1} grade channels. (available with HC1) - Per arrangement	\$ 103.24	\$ 151.68
Group to Voice: An arrangement that provides a Group capacity to multiplex, on a frequency division basis, 12 Voice grade channels. (available with WA1)  - Per arrangement	ICB rates and charges apply	ICB rates and charges apply
Voice to Narrowband (43 Type Carrier): An arrangement that provides a voice grade capacity to multiplex on a frequency division basis, NB4 and NB5 channels. (available with VG6) - Per arrangement	249.43	292.47

Digital Data channels are only available from the serving wire center serving the Telephone Company designated Digital Hub. Digital Data on DS1 is used only as a component of DA1-4.17.

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

## (C) <u>Hub Functions</u> (Cont'd)

# (1) <u>Multiplexing</u> (Cont'd)

(1) <u>Multi</u>	(1) <u>Multiplexing</u> (Cont'd)				
	Nonrecurring Charge				
	Monthly	•			
	Rates	Initial	Subsequent		
Digital Data Multiplexing: (Required	· <u> </u>				
with digital Data Access service with DS					
facility interface at IC terminal location).					
,					
Carrier Multiplexing Unit: An					
arrangement that provides a 1.5444					
Mbps capacity to multiplex on a digital					
time division basis, 23 64 kbps channels.					
- Per Unit	\$150.95	\$140.47	None		
101 01110	Ψ100.>0	Ψ1.0	1,0110		
Carrier Multiplexing Plug-Ins					
- Per 64 kbps channel equipped {1}	1.56	53.09	\$135.20		
	-12-2		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Carrier Sub-Multiplexing Unit: An					
arrangement that provides a 64 kbps					
capacity to multiplex on a digital time					
division basis, subspeed Digital Data					
Access Services					
- Per Unit					
1 Ci Cint					
- 20 2.4 kbps services	146.39	88.66	167.03		
- 10 4.8 kbps services	75.45	70.88	151.12		
- 5 9.6 kbps services	52.45	70.88	151.12		
5 7.0 Rops services	52.15	70.00	131.12		

Required with DS1 to Digital Data channels hub multiplexing capability.

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

(C)	<u>Hub Functions</u> (Cont'd)

	(2)	<u>Bridging</u>	Mondal	N. D
Narrow Bar	nd Bridges	<u>.</u>	Monthly <u>Rates</u>	Non-Recurring <u>Charges</u>
- Two-Wire (available - Per Po	with NB1		\$ 3.19	\$ 5.25
- Telegraph (available				
- Two-Wii - Per Po - Four-Wii	rt re		3.19	6.29
- Per Po Voice Grad			3.19	10.45
- Voice Brid (available v		12 & 13)		
- Two-Wii - Per Po	-		3.19	6.29
- Four-Win - Per Po	-		3.19	10.45
- Data Brid (available v		6 & 10)		
- Two-Wii - Per Po	-		5.27	6.29
Four-W			\$ 5.27	\$ 10.45

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

(C)	<u>Hub Functions</u> (Cont'd)

(2)	Bridging (Cont'd)	Monthly	Non-Recurring
Voice Grade Bridges		Rates	<u>Charges</u>
- Telephoto Bridging: (available with VG11)			
- Two-Wire - Per Port		6.59	6.29
- Four-Wire - Per Port		6.59	10.45
- DATAPHONE Select-A- (available with VG5)	-Station Bridging:		
Sequential Arrangemen	nt		
Ports - Per 2-wire channel co	onnected	24.44	6.29
- Per 4-wire channel co	onnected	129.81	10.45
Addressable Arrangem	ent		
Ports - Per 2-wire channel co	onnected	26.21	6.29
- Per 4-wire channel co	onnected	133.35	10.45

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

(C) <u>Hub Functions</u> (Cont'd)

(2)	Bridging (Cont'd)	N. 41	W B
Voice Grade Bridges		Monthly <u>Rates</u>	Non-Recurring <u>Charges</u>
- Telementry & Alarm l	Bridging:		
- Split Band, Active I - per channel conne		\$ 9.62	\$ 6.29
- Passive Bridging - per channel conne	ected	0.84	6.29
- Summation, Active - per channel conne		1.57	6.29
Program Audio Bridges (available with AP1-4) Distribution Amplifiers - Per Bridge		42.00	35.39
Digital Data Access Brid (available with DA1-4) Central office bridge	lges	<b>4.7.72</b>	0.10.45
- Per Port		\$ 7.72	\$ 10.45

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.3 <u>Features and Functions</u> (Cont'd)

## (D) Optional Features and Functions

## (1) <u>Voice Grade Services</u>

(a)	Conditi	oning:	
	(1)	C-Type Co Nonrecur	nditioning rring Charges
	Monthly <u>Rates</u>	<u>Initial</u>	Subsequent
Per Two-Point Service or each section (i.e. mid link			
or end link) of a Multipoint Service.	\$ 6.55	\$ 11.04	\$ 682.95
	(2)	D-A - Type	e Conditioning
Per Two-Point Service or each section (i.e. mid link or end link) of a Multipoint			
Service.	\$ 1.46	\$ 9.43	\$ 681.34
	(3)	Telephoto (	Conditioning
Per Two-Point Service or each section (i.e. mid link or end link) of a Multipoint			
Service.	\$ 3.23	\$ 9.13	\$ 681.04
(b)	<u>Improv</u>	ed Return Loss 2	2-Wire
- Per end user premises, per service	1.95	\$ 13.59	\$ 39.80

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

- (D) Optional Features and Functions (Cont'd)
  - (1) <u>Voice Grade Services</u> (Cont'd)
    - (c) <u>Improved Return Loss at Four-Wire Point of Interface</u>

		Nonrecurring Charges	
	Monthly <u>Rates</u>	<u>Initial</u>	Subsequent
Per IC terminal location, per service	\$ 1.95	\$ 24.68	\$ 50.89
,	(d) <u>IC Specific</u>	ed End User	<u>Premises</u>
- Per end user premises, per service	None	\$ 9.63	\$ 35.84

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.3 <u>Features and Functions</u> (Cont'd)

- (D) Optional Features and Functions (Cont'd)
  - (2) <u>Program Audio Services</u>
    - (a) <u>Gain Conditioning</u>

		Nonrecu	rring Charges
	Monthly <u>Rates</u>	<u>Initial</u>	Subsequent
Per services	\$ 4.32	\$ 57.62	\$338.95

(b) Stereo

		Nonrecu	rring Charges
	Monthly <u>Rates</u>	<u>Initial</u>	Subsequent
Per services	None	\$57.62	\$338.95

- 17. Rates and Charges (Cont'd)
  - 17.3 <u>Special Access Service</u> (Cont'd)
    - 17.3.3 <u>Features and Functions</u> (Cont'd)
      - (D) <u>Optional Features and Functions</u> (Cont'd)
        - (3) <u>Digital Data Access Services</u>

		Nonre	ecurring Charges
	Month <u>Rates</u>	•	Subsequent
Loop Transfer Arrangement			
-Per Arrangement	\$ 16.92	\$ 87.96	\$186.33

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

# 17.3.3 <u>Features and Functions</u> (Cont'd)

# (D) <u>Optional Features and Functions</u> (Cont'd)

# (4) <u>High Capacity Services</u>

		Nonrecu	rring Charges
	Monthly <u>Rates</u>	<u>Initial</u>	Subsequent
Automatic Protection Switching			
- Per arrangement	\$ 281.15	\$ 68.27	\$ 159.66

## 17. Rates and Charges (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

## 17.3.4 <u>Special Access Lines</u>

		Nonrecu	urring Charge
	Monthly <u>Rates</u>	First <u>Service</u>	Additional <u>Service</u>
2-Wire (for use with NB1-5, VG1-13 and AP1-4) {1}	\$ 34.28		
4-Wire (for use with NB4, 5, VG1-13 and DA 1-4) {1}	\$ 54.20		
TV (for use with TV1-2) {1}	\$ 292.45		
Group (for use with WA1) {1}	ICB rates and charges apply.		
Supergroup (for use with WA2) {1}	ICB rates and charges apply.		
19.2 kbps (for use with WD1) {1}	ICB rates and charges apply.		
50 kbps (for use with WD2) {1}	ICB rates and charges apply.		
230.4 kbps (for use with WD3) {1}	ICB rates and charges apply.		
56 kbps (for use with WD4) {1}	ICB rates and charges apply.		

{1} See Section 7.4.2 preceding for application of Special Access Service Surcharge.

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.3 <u>Special Access Service</u> (Cont'd)

17.3.4	Special Access Lines (Cont'd)	Monthly <u>Rates</u>	Non-Recurring <u>Charges</u>
DS1 - 1	.544 Mbps (for use with HC1) {1}	\$ 110.83	
DS1C -	3.152 Mbps (for use with HC1C) {1}	ICB rates and charges apply.	
DS2 - 6	.312 Mbps (for use with HC2) {1}	ICB rates and charges apply.	
DS3 - 4	4.736 Mbps (for use with HC3) {1}	\$2,170.47	\$370.00
DS4 - 2	74.176 Mbps (for use with HC4) {1}	ICB rates and charges apply.	
<u>Optiona</u>	d Feature:		
wire ter Require perform	es conversion from 4-wire SAL to 2-mination at end user premises.  End to meet effective four-wire mance with a 2-wire end user premises interface.	\$ 5.36	\$ 13.59

{1} See Section 7.4.2 preceding for application of Special Access Service Surcharge.

## 17. Rates and Charges (Cont'd)

### 17.3 <u>Special Access Service</u> (Cont'd)

### 17.3.5 <u>Special Access Service Surcharge</u>

Monthly Rates

Per Voice Equivalent Channel \$25.00

### 17.4 Reserved For Future Use

## 17.5 <u>Miscellaneous Charges</u>

### 17.5.1 Charges for Additional Engineering

## The charges for additional Engineering are as follows:

			Each
		First Half	Additional
		Hour or	Half Hour or
	Additional Engineering	Fraction	Fraction
	Periods	<u>Thereof</u>	<u>Thereof</u>
(A)	Basic Time, regularly scheduled working hours, per engineer	ICB rates and charges apply	ICB rates and charges apply
(B)	Overtime, outside of regularly scheduled working hours, per engineer	ICB rates and charges apply	ICB rates and charges apply

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.1 <u>Charges for Additional Engineering</u> (Cont'd)

	Additional Engineering Periods	First Half Hour or Fraction <u>Thereof</u>	Each Additional Half Hour or Fraction Thereof
(A)	Installation or Repair		
	Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply
	Premium Time, outside of scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply
(B)	<u>Standby</u>		
	Basic Time, regularly scheduled working hours, per technician	ICB rates and charges apply	ICB rates and charges apply
	Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply
	Premium Time, outside of scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply

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.

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.2 <u>Charges for Additional Labor</u>

	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction <u>Thereof</u>
Testing and Maintenance with other telephone companies, or other Labor		
Basic Time, regularly scheduled working hours, per technician	ICB rates and charges apply	ICB rates and charges apply
Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply
Premium Time, outside of scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply

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.

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.3 <u>Maintenance of Service</u>

Maintenance of Service Periods	First Half Hour or Fraction Thereof	Each Additional Half Hour or Fraction <u>Thereof</u>
Basic Time, regularly scheduled working hours, per technician	ICB rates and charges apply	ICB rates and charges apply
Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply
Premium Time, outside of scheduled work day, per technician	ICB rates and charges apply	ICB rates and charges apply

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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.

### 17. <u>Rates and Charges</u> (Cont'd)

#### 17.5 <u>Miscellaneous Charges</u> (Cont'd)

#### 17.5.4 <u>Restoration Priority</u>

Nonrecurring Charge

Restoration priority, per service arranged \$50.00

#### 17.5.5 <u>InterLATA Presubscription</u>

Nonrecurring Charge

per Telephone Exchange Service line or trunk \$0.00

#### 17.5.6 <u>IntraLATA Presubscription</u>

Nonrecurring Charge

(A) PIC Change

per Telephone Exchange Service line or trunk \$5.00\*

Monthly Charge

(B) Cost Recovery

per Intrastate Switched Access minute \$0.000209

#### 17.5.7 Unauthorized PIC Change

Nonrecurring Charge

per Telephone Exchange Service line or trunk \$30.00

\*For a limited time only, Windstream Pennsylvania, Inc. subscribers to local service may change their IntraLATA Presubscribed Carrier at no charge. To receive this promotional offering a customer must place a completed order for service between February 26, 2001 and April 9, 2001. If order completion is delayed due to Telephone Company reasons, the order completion date will be extended. This offering is not available with any other promotions.

### 17. <u>Rates and Charges</u> (Cont'd)

#### 17.5 <u>Miscellaneous Charges</u> (Cont'd)

#### 17.5.8 Testing Services - Switched Access

#### (A) <u>Additional Cooperative Acceptance Testing</u>

		Each
	First Half	Additional
	Hour or	Half Hour or
	Fraction	Fraction
Testing Periods	<u>Thereof</u>	<u>Thereof</u>
Basic Time, regularly scheduled working hours, per technician	\$36.75	\$14.73
Overtime, outside of regularly scheduled working hours on a scheduled workday, per technician	{1}39.50	{1}17.48
Premium Time, outside scheduled work day, per technician	{1}42.24	{1}20.23

### (B) <u>Automatic Scheduled Testing (AST)</u>

The three tests as set forth in (I) following represent the minimum offering, i.e., an order for testing must, at a minimum, consist of twelve 1004 Hz Tests per transmission path, twelve C-Message Noise Tests per transmission path and one Return Loss (Balance) Test per transmission path, per year. The Additional Tests as set forth in (II) following may be ordered by the customer, at additional charges, 60 days prior to the start of the customer prescribed schedule. The customer also may specify a more frequent schedule of tests 60 days prior to the start of the customer prescribed schedule.

(1)	Basic Offering {2}	Monthly Rates
	1004 Hz Loss Tests performed within a one year period, per test	
	ordered, per transmission path	\$0.06
	C-Message Noise Tests performed within a one year period, per test ordered, per transmission path.	\$0.06
	Return Loss (Balance Tests) performed within a one year period, per test ordere per transmission path.	

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.

{2} Subject to a one year minimum contract period, and annually thereafter.

#### 17. Rates and Charges (Cont'd)

#### 17.5 Miscellaneous Charges (Cont'd)

#### 17.5.8 **Testing Services - Switched Access (Cont'd)**

(B) Automatic Scheduled Testing (AST) (Cont'd)

> Monthly Rates

#### To First Point of Switching

(2) **Additional Tests** 

> Gain-Slope Tests performed within a one year period, per test ordered,

per transmission path. \$0.06

C-Notched Noise Tests performed within a one year period, per test ordered, per transmission path

\$0.06

#### (3) **Example**

A customer schedules 13 1004 Hz Loss Tests, 13 C-Message Noise Tests and 2 Return Loss Tests on one trunk for a year. The charges will be computed as follows:

+13X .06 = .78 +13X .06 = .78

<u>+ 2</u> <u>X</u> .06 = .12

\$ 1.68 per month, per trunk

#### (C) Cooperative Scheduled Testing (CST)

To First Point of Switching

Monthly Rates

#### (1) Basic Tests {1}

1004 Hz Loss Tests performed within a one year period, per test ordered, per transmission path

\$0.34

{1} Subject to a one year minimum contract period, and annually thereafter.

### 17. Rates and Charges (Cont'd)

#### 17.5 <u>Miscellaneous Charges</u> (Cont'd)

#### 17.5.8 <u>Testing Services - Switched Access</u> (Cont'd)

(C) <u>Cooperative Scheduled Testing (CST)</u> (Cont'd)

### Monthly

#### To First Point of Switching

Rates

#### (1) <u>Basic Tests {1}</u> (Cont'd)

C-Message Noise Tests performed within a one year period, per test ordered, per transmission path. \$0.25

Return Loss (Balance) Tests performed within a one year period, per test ordered, per transmission path \$0.55

### (2) <u>Additional Tests</u>

Gain-Slope Tests performed within a one year period, per test ordered, per transmission path \$0.34

C-Notched Noise Tests performed within a one year period, per test ordered, per transmission path \$0.25

#### (3) Example

A customer schedules 6 1004 Hz Loss Tests, 6 C-Message Noise Tests and 4 Return Loss Tests on one trunk for a year. The charges will be computed as follows:

+6 X .34 = 2.04 +6 X .25 = 1.50 +4 X .55 = 2.20 \$ 5.74 per month, per trunk

{1} Subject to a one year minimum contract period, and annually thereafter.

<b>17.</b>	Rates and	Charges (	(Cont'	'd)

#### 17.5 Miscellaneous Charges (Cont'd)

#### 17.5.8 **Testing Services - Switched Access (Cont'd)**

#### (D) Manual Scheduled Testing (MST)

#### Monthly To First Point of Switching Rates

#### (1) Basic Tests {1}

1004 Hz Loss Tests performed within a one year period, per test ordered per transmission path \$0.90

C-Message Noise Tests performed within a one year period, per test ordered, per transmission path.

\$0.59

Return Loss (Balance) Tests performed within a one year period, per test ordered, per transmission path.

1.20

#### (2) **Additional Tests**

Gain-Slope Tests performed within a one year period, per test ordered, per transmission path .90

C-Notched Noise Test performed within a one year period, per test ordered, per transmission path.

\$0.59

{1} Subject to a one year minimum contract period, and annually thereafter.

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

## 17.5.8 <u>Testing Services - Switched Access</u> (Cont'd)

## (E) <u>Nonscheduled Testing (NST)</u>

## Automatic Testing:

To First Point of Switching	Nonrecurring <u>Charges</u>
1004 Hz Loss, per test performed	\$12.44
C-Message Noise, per test performed	12.44
Return Loss (Balance), per test performed	12.44
Gain-Slope, per test performed	12.44
C-Notched Noise, per test performed	12.44

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.8 <u>Testing Services - Switched Access</u> (Cont'd)

(E) Nonscheduled Testing (NST) (Cont'd)

Cooperative Testing:

		Each
	First Half	Additional
	Hour or	Half Hour or
	Fraction	Fraction
Testing Periods	<u>Thereof</u>	<u>Thereof</u>
Basic Time, regularly scheduled working hours,		
per technician	ICB	ICB
Overtime, Outside of regularly scheduled working		
hours on a scheduled work day, per technician	ICB	ICB
Premium Time, outside scheduled work day,		
per technician	ICB	ICB

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.

## 17. Rates and Charges (Cont'd)

### 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.8 <u>Testing Services - Switched Access</u> (Cont'd)

(E) Nonscheduled Testing (NST) (Cont'd)

Manual Testing:

		Each
	First Half	Additional
	Hour or	Half Hour or
	Fraction	Fraction
Testing Periods	<u>Thereof</u>	<u>Thereof</u>
Basic Time, regularly scheduled working hours,		
per technician	ICB	ICB
Overtime, Outside of regularly scheduled working		
hours on a scheduled work day, per technician	ICB	ICB
Premium Time, outside of scheduled work day,		
per technician	ICB	ICB

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.

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.9 <u>Testing Services - Special Access</u>

(A) Additional Cooperative Acceptance Testing (ACAT)

Testing Periods	First Half Hour or Fraction <u>Thereof</u>	Each Additional Half Hour or Fraction <u>Thereof</u>
Basic Time, regularly scheduled working hours, per technician	ICB	ICB
Overtime, Outside of regularly scheduled working hours on a scheduled work day, per technician	ICB	ICB
Premium Time, outside of scheduled work day, per technician	ICB	ICB

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.

## 17. Rates and Charges (Cont'd)

ISSUED: July 13, 2006

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

### 17.5.9 <u>Testing Services - Special Access (Cont'd)</u>

### (B) Nonscheduled Testing (NST)

Testing Periods	First Half Hour or Fraction <u>Thereof</u>	Each Additional Half Hour or Fraction <u>Thereof</u>
Basic Time, regularly scheduled working hours, per technician	\$44.12	\$17.91
Overtime, Outside of regularly scheduled working hours on a scheduled work day, per technician	{1} 47.22	{1} 21.01
Premium Time, outside of scheduled work day, per technician	{1} 50.33	{1} 24.12

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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.

## 17. Rates and Charges (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

## 17.5.10 Provisions of Access Service Billing Information

Regulations concerning Access Services Billing are set forth in 13.3.6 preceding.

## (1) Secondary Bill

Mo	nthly
<u>R</u>	ate
Standard Paper(per page)	CB
Magnetic Tape(per tape)	CB
Data Transmission(per transmission)	CB

### (2) Additional Copies

•	Non Recurring
	<u>Charge</u>
Standard Paper(per page)	ICB
Magnetic Tape(per tape)	ICB
Data Transmission(per transmission)	ICB

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

## 17.5.11 <u>Protective Connecting Arrangements</u>

	Monthly <u>Rates</u>	Nonrecurring <u>Charges</u>
Automatic PCA with a contact type signaling interface for 2 or 4-wire voice-band connection of CPE communications systems to Telephone Company Special Access Services	s 5.85	None
Automatic PCA for connection of a customer, authorized user or joint user provided communications system arranged for CPE dial or automatic channel signaling, to a Telephone Company Special Access Service which terminates at the distant end in a telephone company-provided PBX arranged for dial or automatic signaling (4-wire).	10.10	\$ 87.15
PCA which provides for connection of CPE automatic telephone answering devices to central office, PBX trunk, key system lines, and centrex station lines by key system lines, and centrex station lines by means of a 2-wire interface.	ICB Rates and Charges apply	ICB Rates and Charges apply.
PCA for connection of CPE answering or recording equipment to Telephone Company lines, for one-way voice transmission in each direction but not simultaneously. Recording of two-way conversations is prevented, by the PCA.	5.40	30.75
PCA for use with CPE answer only equipment where two-way is required	ICB Rates and charges apply.	ICB Rates and charges apply.
Same application as above with voice control disconnect and automatic receive volume limiting.	ICB Rates and charges apply.	ICB Rates and charges apply.

# 17. <u>Rates and Charges</u> (Cont'd)

# 17.5 <u>Miscellaneous Charges</u> (Cont'd)

## 17.5.11 Protective Connecting Arrangements (Cont'd)

Description	Monthly Rates	Nonrecurring <u>Charges</u>
PCA for use with CPE to provide data on PBX trunks. Also requires standard PBX trunk PCA.	ICB Rates and charges apply.	ICB Rates and charges apply.
PCA to permit connection of CPE message registers to exchange facilities of the Telephone Company for indications of message registration for outgoing calls over the associated central office trunks (facilities). Each trunk would also have a PCA (typically CDH or CD8 for connection of the CPE PBX. Association of the trunk with the station is made by the CPE.	ICB Rates and charges apply.	ICB Rates and charges apply.
Alarm coupler for use with rotary dial, one-way transmission CPE alarm signaling device.	ICB Rates and charges apply.	ICB Rates and charges apply.
PCA to permit the connection of CPE to a Telephone Company special recording trunk arranged for 2-way service, i.e., outward dialing by hotel/motel guests and rering by the operator of the Telephone Company long distance switchboard.	ICB Rates and charges apply.	ICB Rates and charges apply.
For termination of CPE tie lines, with CPE channel signaling, in Centrex systems 4-wire.	\$7.20	\$ 21.60
PCA used for automatic connection of CPE voice transmitting and/or receiving terminal equipment to an exchange line or PBX/CTX station line, or to a Switched Access Line, e.g., a WATS access line.	9.40	7.80
PCA to provide for connection of CPE terminal equipment to Telephone Company central office key system and PBX station lines, and Switched Access Lines, e.g., WATS access lines, via 3-wire interface.	ICB Rates and charges apply.	ICB Rates and charges apply.

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

# 17.5.11 <u>Protective Connecting Arrangements</u> (Cont'd)

	Monthly <u>Rates</u>	Nonrecurring <u>Charges</u>
PCA for connection of CPE voice		
communications systems and/or		
terminal equipment via 2-wire interface		
to Telephone Company lines and		
trunks (only loop start trunks not	ICB Rates	ICB Rates
equipped for toll diversion),	and charges	and charges
or terminal equipment.	apply.	apply.
Manual PCA used to connect a cord		
switchboard position of a CPE system,	ICB Rates	ICB Rates
which provides supervisory signals,	and charges	and charges
to an exchange trunk line.	apply.	apply.
-		
Automatic PCA used to connect an		
exchange trunk line arranged for two-way		
combination service to and from the		
attendant position and from the dial	Φ10.4 <b>7</b>	#20.05
switching equipment of a CPE system.	\$10.45	\$39.05
Automatic PCA used to connect an		
exchange trunk line arranged for one-way	ICB Rates	ICB Rates
incoming service to the attendant	and charges	and charges
position of a CPE system.	apply.	apply.
Automatic PCA used to connect an		
exchange trunk line arranged for	ICB Rates	ICB Rates
one-way outgoing service from the	and charges	and charges
attendant position of a CPE system.	apply.	apply.

# 17. <u>Rates and Charges</u> (Cont'd)

## 17.5 <u>Miscellaneous Charges</u> (Cont'd)

# 17.5.11 <u>Protective Connecting Arrangements</u> (Cont'd)

Description	Monthly <u>Rates</u>	Nonrecurring <u>Charges</u>
Automatic PCA used to connect an exchange trunk line arranged for one-way outgoing service from the dial switching equipment of a CPE system	ICB Rates and Charges apply.	ICB Rates and Charges apply.
Automatic PCA used to connect an exchange trunk line arranged for two-way service to and from the attendant position of a CPE system.	\$7.80	\$39.05
PCA used for automatic connecting of CPE voice transmitting and/or receiving terminal equipment bridged to an exchange line or PBX/CTX station line, or to a Switched Access Line, e.g., WATS access line, which is terminated in a Telephone Company station.	9.40	7.80
Automatic PCA used to connect an exchange trunk line, arranged for one-way service, i.e., outward dialing by hotel/motel guests to the operator position of a Telephone Company long distance switchboard (the equivalent of a toll terminal).	ICB Rates and Charges apply	ICB Rates and Charges apply.
PCA to provide for connection of CPE originate only or originate and answer terminal equipment.	ICB Rates and Charges apply.	ICB Rates and Charges apply.

## 17. Rates and Charges (Cont'd)

## 17.6 Special Federal Government Access Services

### 17.6.1 <u>Service Offerings to the Federal Government</u>

### (A) <u>Voice Grade Special Access Service</u>

Voice Grade Secure	Monthly	Nonrecurring	Termination
Communications	Rates	<u>Charges</u>	<u>Charges</u>
Type I, each T-3 Conditioning	ICB	rates and charges a	apply
Additional Conditioning per service termination	ICB	rates and charges a	apply
Type II, each G-1 Conditioning	ICB	rates and charges a	apply
Type III, each G-2 Conditioning	ICB	rates and charges a	apply
Additional Conditioning, per service termination	ICB	rates and charges a	apply
Type IV, each G-3 Conditioning	ICB	rates and charges a	apply
Additional Conditioning, per service termination	ICB	rates and charges a	apply

#### 17. Rates and Charges (Cont'd)

#### 17.6 Special Federal Government Access Services

#### 17.6.1 Service Offerings to the Federal Government

#### (A) <u>Voice Grade Special Access Service</u>

Wideband Secure Monthly Nonrecurring Termination <u>Communications</u> <u>Rates Charges Charges</u>

Type I, each ICB rates and charges apply

Type II, each ICB rates and charges apply

Type III, each ICB rates and charges apply

#### 17.7 **Special Facilities Routing of Access Services**

#### (A) <u>Diversity</u>

For each service provided in accordance with 11.1.1 preceding, the rates and charges will be developed on an individual case basis.

(Reserved for future use.)

#### (B) Avoidance

For each service provided in accordance with 11.1.2 preceding, the rates and charges will be developed on an individual case basis.

(Reserved for future use.)

#### (C) <u>Diversity and Avoidance Combined</u>

For each service provided in accordance with 11.1.1 and 11.1.2 preceding, combined, the rates and charges will be developed on an individual case basis.

(Reserved for future use.)

#### (D) <u>Cable-Only Facilities</u>

For each service provided in accordance with 11.1.4 preceding, the rates and charges will be developed on an individual case basis.

(Reserved for future use.)

## 17. Rates and Charges (Cont'd)

### 17.8 Specialized Service or Arrangements

Specialized Service or Arrangements are provided in accordance with 12.1 preceding on an individual case basis as set forth following: