(x)

ACCESS SERVICE

Regulations, Rates and Charges applying to the provision of Access Services within a Local Access and Transport Area (LATA) or equivalent Market Area for connection to interstate communications facilities for Interstate Customers within the operating territory of the Issuing Carriers listed on Title Page 2.

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

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

ISSUING CARRIERS

Arrowhead Communications Corporation

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises

150 2nd Street, SW Perham, MN 56573

Callaway Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Clements Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Eagle Valley Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

East Otter Tail Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Felton Telephone Company, Inc.

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Issued: October 17, 2018

Guadalupe Valley Telephone Cooperative, Inc.

Mr. Robert A. Hunt

Vice President of Regulatory Affairs

36101 FM 3159

New Braunfels, TX 78132-5900

The Home Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Loretel Systems, Inc. Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Melrose Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Midwest Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Certain material formerly found on this page now appears on Original Title Page 2.1.

Transmittal No. 15

Partner – Communications and Media Practice 3121 W. March Lane #200, Stockton, CA 95219

(D)

Effective: November 1, 2018

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ACCESS SERVICE

ISSUING CARRIERS (Cont'd)

Osakis Telephone Company Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Peoples Telephone Company Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Redwood County Telephone Company

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

Twin Valley-Ulen Telephone Company, Inc.

Ms. Staci Malikowski Chief Financial Officer c/o Arvig Enterprises 150 2nd Street, SW Perham, MN 56573

LaHarpe Telephone Company, Inc.

Mr. Harry Lee, Jr. President 109 West 6th Street

La Harpe, KS 66749

Dobson Telephone Company

Mr. Trent LeForce Chief Financial Officer 14101 Wireless Way

Suite 300

Oklahoma City, OK 73134

McLoud Telephone Company

Mr. Trent LeForce Chief Financial Officer 14101 Wireless Way

Suite 300

Oklahoma City, OK 73134

UBTA-UBET Communications, Inc.

d/b/a Strata Networks Mr. Bruce H. Todd

General Manager/Chief Executive Officer

211 East 200 North P.O. Box 398

(D) Roosevelt, UT 84066

Great Plains Communications LLC

Mr. Todd A. Foje Chief Executive Officer 1600 Great Plains Centre

P.O. Box 500 Blair, NE 68008

Transmittal No. 20

Effective: July 2, 2019

(T)

ACCESS SERVICE

ISSUING CARRIERS (Cont'd)

Brazos Telephone Cooperative, Inc.

Mr. Lonnie Rue

Chief Executive Officer

Olney, TX 76374

Brazos Telephone Service

dba Nex-Tech

Ms. Rhonda Goddard

Chief Financial Officer

P.O. Box 158

Lenora, KS 67645

Panhandle Telephone Cooperative, Inc.

Ms. Jana Wallace

Chief Executive Officer

603 South Main Street

Guymon, OK 73942

United Utilities, Inc.

Karen Crapps

Regulatory Affairs Director

5450 A Street

Anchorage, AK 99518 Missouri Valley Communications, Inc.

c/o Nemont Telephone Cooperative, Inc. SAC: 382247
Mr. Mike Kilgore
Chief Executive Officer
61 Highway 13 South
P.O. Box 600

61 Highway 13 South (T) 14780 W Mountain View Blvd., Suite 109 (T)
P.O. Box 600 Surprise, AZ 85374 (T)
Scobey, MT 59263
Canby Telephone Association

(T)

Nemont Telephone Cooperative, Inc. SAC: 482247-MT, 382247-ND Mr. Mike Kilgore Chief Executive Officer 61 Highway 13 South

Chief Executive Officer
(T) P.O. Box 880
61 Highway 13 South
(T) Canby, OR 97013
P.O. Box 600
Scobey, MT 59263

Cambridge Telephone Company, Inc. Mr. Richard Wiggins President 130 North Superior Street P.O. Box 88

Mid-Rivers Telephone Cooperative, Inc. Mr. Michael Candelaria Chief Executive Officer/General Manager 904 C Avenue P.O. Box 280 Circle, MT 59215

Cambridge, ID 83610

Millry Telephone Company, Inc. Mr. Paul E. Brown, Jr. Vice President 30433 Highway 17 P.O. Box 561 Millry, AL 36558

Chief Executive Officer/President

Accipiter Communications, Inc.

d/b/a Zona Communications

Mr. Scott Beer

General Counsel

Mr. Paul Hauer

190 SE 2nd Avenue

Moapa Valley Telephone Company Mr. Brad Lyon President 1120 North Moapa Valley Boulevard P.O. Box 365 Overton, NV 89040-0365

Transmittal No. 39

ISSUING CARRIERS (Cont'd)

Pioneer Telephone Cooperative, Inc.	(T)	Citizens Telephone Company of	
Ms. Cheryl Yost Department Manager of Billing Services	(T)	Higginsville, Missouri Mr. David Adams	(T)
108 East Robberts	(T)		(T)
P. O. Box 539		President/General Manager PO Box 227	(T)
			(T)
Kingfisher, OK 73750		Breckenridge, MO 64625	(T)
Project Telephone Company, Inc.		Delhi Telephone Company	
c/o Nemont Telephone Cooperative, Inc.		Mr. Jason Miller	
Mr. Mike Kilgore		General Manager	
Chief Executive Officer	(T)	PO Box 271	
61 Highway 13 South		Delhi, NY 13753	
P.O. Box 600			
Scobey, MT 59263-0600		Five Area Telephone Cooperative, Inc.	
		SAC: 442071	
South Central Rural Telecommunications		Mr. Mark Washington	
Cooperative, Inc.		Chief Executive Officer	
Ms. Melissa McCoy	(T)	P.O. Box 448	
Regulatory/Information System Manger	(T)	Muleshoe, TX 79347	
1399 Happy Valley Road	, ,		
Glasgow, KY 42142		Hot Springs Telephone Company	
		Ms. Kathe Johnson	
All West Communications, Inc Utah		Treasurer	
SAC: 502288		P.O. Box 17740	
Ms. Jenny Prescott		Missoula, MT 59808	
Vice President of Finance		,	
50 West 100 North		Interbel Telephone Cooperative, Inc.	
Kamas, UT 84036		Mr. Jason Moothart	
,		Chief Executive Officer	
All West Communications, Inc Wyomin	ng	P.O. Box 648	
SAC: 512290	C	Eureka, MT 59917	
Ms. Jenny Prescott		,	
Vice President of Finance		North Texas Telephone Company	
50 West 100 North		Ms. Jennifer Prather	(T)
Kamas, UT 84036		Vice President	(T)
,		P.O. Box 290	()
Chugwater Telephone Company		DeLeon, TX 76444	
c/o Mountain West Technologies Corpora	tion	,	
Mr. Kyle Ridgeway	(T)	Oklatel Communications, LLC	
President	` /	Ms. Jennifer Prather	(T)
400 E. 1st Street, Suite 314	(T)	Vice President	(T)
Casper, WY 82601	` /	P.O. Box 290	()
• 1		DeLeon, TX 76444	

Transmittal No. 39

Vernon, TX 76385

P.O. Box 448

(D)

(T)

ACCESS SERVICE

ISSUING CARRIERS (Cont'd)

Phillips County Telephone Company
d/b/a PC Telcom
Ms. Karen Crapps
Mr. Vince Kropp
Regulatory Affairs Director
Chief Executive Officer/General Manager
P.O. Box 387
Holyoke, CO 80734

Yukon Telephone Company
Ms. Karen Crapps
Regulatory Affairs Director
2550 Denali Street, Suite 1000
Anchorage, AK 99503

Southwest Oklahoma Telephone Company
Saddleback Communications Company
Mr. Edward E. Hilliary, Jr.

Mr. Bill Bryant President

President/General Manager
10190 E. McKellips Road
P.O. Box 105
Scottsdale, AZ 85256
Lawton, OK 73502

Santa Rosa Telephone 3 Rivers Telephone Cooperative, Inc. Cooperative, Inc. – OK Ms. Emily A. Gulick

SAC: 432141 Chief Financial Officer
Mr. Kirk Petty 406 2nd Avenue South
Chief Executive Officer/General Manager P.O. Box 429

P.O. Box 2128 Fairfield, MT 59436

Vernon, TX 76385

Granite State Telephone, Inc.

Santa Rosa Telephone Ms. Susan Rand King
Cooperative, Inc. – TX
President
SAC: 442141 600 South Stark Highway

Mr. Kirk Petty
P.O. Box 87

Chief Executive Officer/General Manager Weare, NH 03281 P.O. Box 2128

Mr. Derrick Mottern

Totelcom Communications, LLC

Ms. Jennifer Prather

Chief Executive Officer/General Manager
38770 North Main Street

Chief Executive Officer (T) P.O. Box 1100 P.O. Box 290 Scio, OR 97374 DeLeon, TX 76444

South Central Utah Telephone Association, Inc.

West Plains Telecommunications, Inc.

Mr. Michael R. East
SAC: 442071

Mr. Mark Washington

Mr. Mark Washington

318 North 100 East
Chief Executive Officer

Kanab, UT 84741

Muleshoe, TX 79347

Blue Earth Valley Telephone Company
Rick Scholtes

Revenue Requirement Specialist

123 West Seventh Street Blue Earth, MN 56103

Scio Mutual Telephone Company

Transmittal No. 39

ISSUING CARRIERS (Cont'd)

Cannon Valley Telecom, Inc.

Rick Scholtes

Revenue Requirement Specialist

123 West Seventh Street Blue Earth, MN 56103

Cordova Telephone Cooperative

Lisa Koker

Chief Financial Officer

P.O. Box 459

Cordova, AK 99574

Easton Telephone Company

Rick Scholtes

Revenue Requirement Specialist

123 West Seventh Street Blue Earth, MN 56103

Eckles Telephone Company

Rick Scholtes

Revenue Requirement Specialist

123 West Seventh Street Blue Earth, MN 56103

Hager Telecom Incorporated

Rick Scholtes

Revenue Requirement Specialist

123 West Seventh Street Blue Earth, MN 56103

Ketchikan Public Utilities

d/b/a KPU Telecommunications

Dan Lindgren

Telecommunications Division Manager

S/B 334 Font Street Ketchikan, AK 99901

Laurel Highland Telephone Company

James J. Kail

President and Chief Executive Officer

4157 Main Street

Stahlstown, PA 15687

Issued: June 16, 2023

Wamego Telephone Company, Inc.

Jeff Wick

President/General Manager

P.O. Box 25

1009 Lincoln Avenue

Wamego, KS 66547

Emery Telephone Brock Johansen

Chief Executive Officer and General Manager

P.O. Box 629 445 East SR 29

Orangeville, UT 84537

Moundridge Telephone Company, Inc.

Ms. Rhonda Goddard Chief Financial Officer

P.O. Box 158

Lenora, KS 67645

Ringgold Telephone Company

Alice Evitt Bandy

President

6203 Alabama Highway

P.O. Box 869

Ringgold, GA 30736

Steelville Telephone Exchange, Inc.

Kevin Ancell General Manager 61 E Hwy 8

Steelville, MO 65565

Yadkin Valley Telephone Membership Corporation

Catherine Chambliss

Director of Finance, Accounting 1421 Courtney-Huntsville Road

Yadkinville, NC 27055

Effective: July 1, 2023

Transmittal No. 39

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CHECK SHEET

Title Pages 1 to 2.2 and Pages 1 to 17-8.28.3 inclusive of this tariff are effective as of the date shown. Original and revised pages as named below contain all changes from the original tariff that are in effect on the date hereof.

	Number of Revision Except as		Number of Revision Except as		Number of Revision Except as
<u>Page</u>	Indicated	<u>Page</u>	Indicated	<u>Page</u>	Indicated
Title	Original	1.28	2nd	17.1	6th
Title	2nd	1.29	2nd	17.1.1	4th
Title	4th	1.30	1st	17.1.1	Original
Title	4th	1.31	1st	17.2	5th
Title	3rd	1.32	1st	17.2.1	4th
Title	5th	1.33	1st	17.2.2	Original
Title	2nd	1.34	Original	17.3	5th
1	39th *	2	Original	17.4	4th
1.1	12th	3	1st	17.4	Original
1.2	7th	4	1st	18	Original
1.3	6th	5	Original	19	Original
1.4	9th	6	Original	20	Original
1.5	31st *	7	Original	21	Original
1.6	20th *	8	Original	22	Original
1.7	15th	9	Original	23	Original
1.8	12th	10	1st	24	Original
1.9	11th	10.1	Original	25	Original
1.10	11th *	11	Original	26	Original
1.11	16th	12	Original	27	Original
1.12	14th	13	1st	28	Original
1.13	15th *	14	3rd	29	Original
1.14	13th *	14.1	4th	1-1	Original
1.15	12th	14.2	4th	2-1	Original
1.16	10th	15	7th	2-2	Original
1.17	7th	15.1	4th	2-3	Original
1.18	7th	15.2	Original	2-4	Original
1.19	8th	16	6th	2-5	Original
1.20	9th	16.1	6th	2-6	Original
1.21	4th	16.1.1	1st	2-7	Original
1.22	5th	16.2	2nd	2-8	Original
1.23	5th	16.3	4th	2-9	Original
1.24	5th	16.4	1st	2-10	Original
1.25	5th	17	7th	2-11	Original
1.26	6th	17.0.1	4th	2-12	Original
1.27	5th	17.0.2	Original		-

^{*}New or revised page.

Transmittal No. 41

Issued: September 18, 2023 Effective: October 3, 2023

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<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>
2-13	Original	2-52	1st	4-2	Original
2-14	Original	2-53	1st	4-3	Original
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2-17	Original	2-56	1st	5-1	Original
2-18	Original	2-57	Original	5-2	Original
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2-20	Original	2-59	1st	5-4	Original
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2-22	Original	2-61	Original	5-6	Original
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2-25	Original	2-64	Original	5-9	Original
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2-31	Original	2-70	Original	5-15	Original
2-32	Original	2-71	Original	5-16	Original
2-33	Original	2-72	Original	5-17	Original
2-34	Original	2-73	1st	5-18	Original
2-35	Original	2-73.1	Original	5-19	1st
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2-37	Original	2-75	Original	5-20	Original
2-38	Original	2-76	Original	5-21	Original
2-39	Original	2-77	Original	5-22	Original
2-40	Original	2-78	Original	5-23	Original
2-41	Original	2-79	Original	5-24	Original
2-42	Original	2-80	Original	5-25	3rd
2-43	Original	2-81	Original	5-25.1	Original
2-44	Original	2-82	1st	5-26	Original
2-45	Original	2-82.1	Original	5-27	Original
2-46	Original	2-83	Original	5-28	Original
2-47	Original	3-1	3rd	5-29	Original
2-48	1st	3-1.1	Original	5-30	Original
2-49	Original	3-2	1st	5-31	Original
2-50	1st	3-3	Original	5-32	Original
2-51	Original	4-1	Original	6-1	Original

^{*}New or revised page.

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6-4	Original	6-42	1st	6-81	Original
6-5	Original	6-43	1st	6-82	Original
6-6	1st	6-44	1st	6-83	Original
6-7	Original	6-45	Original	6-84	1st
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6-10	Original	6-48	Original	6-87	Original
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6-13	Original	6-51	Original	6-90	Original
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6-22	Original	6-60	Original	6-99	Original
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6-25	1st	6-63	Original	6-102	Original
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6-27	1st	6-65	Original	6-104	Original
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6-29	1st	6-67	Original	6-106	Original
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6-30	Original	6-69	Original	6-108	Original
6-31	Original	6-70	Original	6-109	Original
6-32	Original	6-71	1st	6-110	Original
6-33	Original	6-72	Original	6-111	Original
6-34	Original	6-73	1st	6-112	Original
6-35	Original	6-74	Original	6-113	Original
6-36	Original	6-75	Original	6-114	Original
6-37	Original	6-76	Original	6-115	1st
6-38	Original	6-77	1st	6-116	1st
6-39	Original	6-78	Original	6-117	Original

^{*}New or revised page.

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<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>
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7-4	Original	7-43	Original	8-5	Original
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7-18	Original	7-57	Original	8-19	Original
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7-31	Original	7-70	Original	8-32	Original
7-32	Original	7-71	Original	8-33	Original
7-33	Original	7-72	Original	8-34	Original
7-34	Original	7-73	Original	9-1	Original
7-35	Original	7-74	Original	10-1	Original
7-36	Original	7-75	Original	11-1	Original
7-37	Original	7-76	Original	11-2	Original
7-38	Original	7-77	Original	12-1	Original

*New or revised page.

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<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>	<u>Page</u>	Number of Revision Except as <u>Indicated</u>
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13-1	Original Original	15-19	Original	16-7	Original Original
13-2	Original	15-20	Original	16-8	Original
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13-6	Original	15-23	Original	16-10	Original
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13-8	Original	15-26	Original	16-12	Original
13-8	Original	15-20	Original	16-13	Original
13-10	Original	15-27	Original	16-15	Original
13-10	Original	15-28	Original	16-16	Original
13-11	Original	15-30	Original	16-17	Original
13-12	Original	15-30	Original	16-17	Original
13-14	Original	15-32	Original	16-19	Original
13-15	Original	15-33	Original	16-20	Original
13-16	Original	15-34	Original	16-21	Original
13-17	Original	15-35	Original	16-22	Original
13-18	Original	15-36	Original	16-23	Original
13-19	Original	15-37	Original	16-24	Original
13-20	Original	15-38	Original	16-25	Original
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15-1	Original	15-40	Original	16-27	Original
15-2	Original	15-41	Original	16-28	Original
15-3	Original	15-42	Original	16-29	Original
15-4	Original	15-43	Original	16-30	Original
15-5	Original	15-44	Original	16-31	Original
15-6	Original	15-45	Original	16-32	Original
15-7	Original	15-46	Original	16-33	Original
15-8	Original	15-47	Original	16-34	Original
15-9	Original	15-48	Original	16-35	Original
15-10	Original	15-49	Original	16-36	1st
15-11	Original	15-50	Original	16-37	1st
15-12	Original	15-51	Original	16-38	Original
15-13	Original	15-52	Original	16-39	Original
15-14	Original	16-1	Original	16-40	Original
15-15	Original	16-2	Original	16-41	Original
15-16	Original	16-3	Original	16-42	Original
15-17	Original	16-4	Original	16-43	Original
15-18	Original	16-5	Original	16-44	Original

^{*}New or revised page.

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	Number of		Number of		Number of
	Revision		Revision		Revision
Daga	Except as Indicated	Daga	Except as Indicated	Daga	Except as Indicated
<u>Page</u>	marcated	<u>Page</u>	<u>marcated</u>	<u>Page</u>	marcatea
16-45	Original	16-79	1st	16-103	Original
16-46	1st	16-80	1st	16-104	Original
16-47	Original	16-81	Original	16-105	Original
16-48	Original	16-82	1st	16-106	Original
16-49	Original	16-83	1st	17-1.1.1	28th *
16-50	Original	16-83.1	Original	17-1.2.1	28th *
16-51	Original	16-84	2nd	17-1.3.1	28th *
16-52	Original	16-84.1	Original	17-1.4.1	15th *
16-53	Original	16-85	1st	17-1.5.1	Original
16-54	2nd	16-86	1st	17-1.6.1	9th
16-55	2nd	16-86.1	Original	17-1.7.1	28th *
16-56	Original	16-86.2	Original	17-1.8.1	28th *
16-57	2nd	16-87	1st	17-1.9.1	28th *
16-58	Original	16-87.1	Original	17-1.10.1	6th
16-59	Original	16-88	1st	17-1.11.1	Original
16-60	Original	16-89	1st	17-1.12.1	27th *
16-61	Original	16-89.1	Original	17-1.13.1	27th *
16-62	Original	16-90	1st	17-1.14.1	27th *
16-63	Original	16-91	1st	17-1.15.1	27th *
16-64	2nd	16-92	1st	17-1.16.1	27th *
16-65	2nd	16-92.1	Original	17-1.17.1	25th *
16-66	Original	16-92.2	Original	17-1.18.1	1st
16-66.1	1st	16-92.3	Original	17-1.19.1	1st
16-66.2	1st	16-92.4	Original	17-1.20.1	1st
16-66.3	Original	16-92.5	Original	17-1.21.1	25th *
16-66.4	Original	16-92.6	Original	17-1.22.1	25th *
16-67	1st	16-92.7	Original	17-1.23.1	25th *
16-68	Original	16-92.8	Original	17-1.24.1	25th *
16-69	1st	16-92.9	Original	17-1.25.1	25th *
16-69.1	Original	16-93	Original	17-1.26.1	Original
16-70	1st	16-94	Original	17-1.27.1	18th *
16-71	1st	16-95	Original	17-1.28.1	18th *
16-72	1st	16-96	Original	17-1.29.1	21st *
16-73	Original	16-97	Original	17-1.30.1	21st *
16-74	Original	16-98	Original	17-1.31.1	21st *
16-75	1st	16-99	Original	17-1.32.1	21st *
16-76	Original	16-100	Original	17-1.33.1	21st *
16-77	1st	16-101	Original	17-1.34.1	21st *
16-78	Original	16-102	Original	17-1.35.1	1st
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17-1.36.1	17th *	17-1.75.1	1st *	17-2.6.3	Original
17-1.37.1	17th *	17-1.76.1	Original	17-2.6.4	Original
17-1.38.1	17th *	17-2.1.1	Original	17-2.6.5	Original
17-1.39.1	18th *	17-2.1.2	Original	17-2.6.6	3rd
17-1.40.1	Original	17-2.1.3	Original	17-2.6.7	1st
17-1.41.1	13th *	17-2.1.4	3rd	17-2.7.1	Original
17-1.42.1	13th *	17-2.1.5	Original	17-2.7.2	Original
17-1.43.1	13th *	17-2.1.6	7th	17-2.7.3	Original
17-1.44.1	13th *	17-2.1.7	Original	17-2.7.4	3rd
17-1.45.1	13th *	17-2.2.1	Original	17-2.7.5	Original
17-1.46.1	13th *	17-2.2.2	Original	17-2.7.6	7th
17-1.47.1	13th *	17-2.2.3	Original	17-2.7.7	Original
17-1.48.1	Original	17-2.2.4	3rd	17-2.8.1	Original
17-1.49.1	13th *	17-2.2.5	Original	17-2.8.2	Original
17-1.50.1	13th *	17-2.2.6	7th	17-2.8.3	Original
17-1.51.1	13th *	17-2.2.7	Original	17-2.8.4	3rd
17-1.52.1	13th *	17-2.3.1	Original	17-2.8.5	Original
17-1.53.1	13th *	17-2.3.2	Original	17-2.8.6	6th
17-1.54.1	13th *	17-2.3.3	Original	17-2.8.7	Original
17-1.55.1	13th *	17-2.3.4	3rd	17-2.9.1	Original
17-1.56.1	13th *	17-2.3.5	Original	17-2.9.2	Original
17-1.57.1	13th *	17-2.3.6	7th	17-2.9.3	Original
17-1.58.1	6th *	17-2.3.7	Original	17-2.9.4	3rd
17-1.59.1	5th *	17-2.4.1	Original	17-2.9.5	Original
17-1.60.1	Original	17-2.4.2	Original	17-2.9.6	7th
17-1.61.1	Original	17-2.4.3	Original	17-2.9.7	Original
17-1.62.1	Original	17-2.4.4	3rd	17-2.10.1	Original
17-1.63.1	3rd *	17-2.4.5	Original	17-2.11.1	Original
17-1.64.1	3rd *	17-2.4.6	7th	17-2.12.1	Original
17-1.65.1	3rd *	17-2.4.7	Original	17-2.13.1	Original
17-1.66.1	3rd *	17-2.5.1	Original	17-2.14.1	Original
17-1.67.1	3rd *	17-2.5.2	Original	17-2.15.1	Original
17-1.68.1	3rd *	17-2.5.3	Original	17-2.16.1	Original
17-1.69.1	3rd *	17-2.5.4	3rd	17-2.17.1	Original
17-1.70.1	3rd *	17-2.5.5	Original	17-2.17.2	Original
17-1.71.1	3rd *	17-2.5.6	7th	17-2.17.3	Original
17-1.72.1	Original	17-2.5.7	Original	17-2.17.4	3rd
17-1.73.1	Original	17-2.6.1	Original	17-2.17.5	Original
17-1.74.1	Original	17-2.6.2	Original	17-2.17.6	6th

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17-2.18.1	1st	17-2.23.5	Original	17-2.29.2	Original
17-2.18.2	1st	17-2.23.6	6th *	17-2.29.3	Original
17-2.18.3	1st	17-2.23.7	Original	17-2.29.4	3rd *
17-2.18.4	1st	17-2.24.1	1st	17-2.29.5	Original
17-2.18.5	1st	17-2.24.2	1st	17-2.29.6	5th *
17-2.18.6	2nd	17-2.24.3	1st	17-2.29.7	Original
17-2.18.7	1st	17-2.24.4	4th *	17-2.30.1	1st
17-2.19.1	1st	17-2.24.5	1st	17-2.30.2	1st
17-2.19.2	1st	17-2.24.6	7th *	17-2.30.3	1st
17-2.19.3	1st	17-2.24.7	1st	17-2.30.4	3rd *
17-2.19.4	1st	17-2.25.1	Original	17-2.30.5	Original
17-2.19.5	1st	17-2.25.2	Original	17-2.30.6	5th *
17-2.19.6	1st	17-2.25.3	Original	17-2.30.7	Original
17-2.19.7	1st	17-2.25.4	3rd *	17-2.31.1	Original
17-2.20.1	1st	17-2.25.5	Original	17-2.31.2	1st
17-2.20.2	1st	17-2.25.6	6th *	17-2.31.3	Original
17-2.20.3	1st	17-2.25.7	Original	17-2.31.4	3rd *
17-2.20.4	1st	17-2.26.1	Original	17-2.31.5	Original
17-2.20.5	1st	17-2.26.2	Original	17-2.31.6	5th *
17-2.20.6	2nd	17-2.26.3	Original	17-2.31.7	Original
17-2.20.7	1st	17-2.26.4	3rd *	17-2.32.1	Original
17-2.21.1	Original	17-2.26.5	Original	17-2.32.2	Original
17-2.21.2	Original	17-2.26.6	6th *	17-2.32.3	Original
17-2.21.3	Original	17-2.26.7	Original	17-2.32.4	3rd *
17-2.21.4	3rd *	17-2.27.1	Original	17-2.32.5	Original
17-2.21.5	Original	17-2.27.2	Original	17-2.32.6	6th *
17-2.21.6	6th *	17-2.27.3	Original	17-2.32.7	Original
17-2.21.7	Original	17-2.27.4	3rd	17-2.33.1	Original
17-2.22.1	Original	17-2.27.5	Original	17-2.33.2	Original
17-2.22.2	Original	17-2.27.6	6th *	17-2.33.3	Original
17-2.22.3	Original	17-2.27.7	Original	17-2.33.4	3rd *
17-2.22.4	3rd *	17-2.28.1	Original	17-2.33.5	Original
17-2.22.5	Original	17-2.28.2	Original	17-2.33.6	5th *
17-2.22.6	6th *	17-2.28.3	Original	17-2.33.7	Original
17-2.22.7	Original	17-2.28.4	3rd *	17-2.34.1	Original
17-2.23.1	Original	17-2.28.5	Original	17-2.34.2	Original
17-2.23.2	Original	17-2.28.6	6th *	17-2.34.3	Original
17-2.23.3	Original	17-2.28.7	Original	17-2.34.4	3rd

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17-2.34.6	5th *	17-2.40.3	Original	17-2.45.7	Original
17-2.34.7	Original	17-2.40.4	3rd *	17-2.46.1	Original
17-2.35.1	Original	17-2.40.5	Original	17-2.46.2	Original
17-2.35.2	Original	17-2.40.6	4th *	17-2.46.3	Original
17-2.35.3	Original	17-2.40.7	Original	17-2.46.4	3rd *
17-2.35.4	3rd *	17-2.41.1	Original	17-2.46.5	Original
17-2.35.5	Original	17-2.41.2	Original	17-2.46.6	3rd *
17-2.35.6	4th *	17-2.41.3	Original	17-2.46.7	Original
17-2.35.7	Original	17-2.41.4	3rd *	17-2.47.1	Original
17-2.36.1	Original	17-2.41.5	Original	17-2.47.2	Original
17-2.36.2	Original	17-2.41.6	3rd *	17-2.47.3	Original
17-2.36.3	Original	17-2.41.7	Original	17-2.47.4	3rd *
17-2.36.4	3rd *	17-2.42.1	Original	17-2.47.5	Original
17-2.36.5	Original	17-2.42.2	Original	17-2.47.6	3rd *
17-2.36.6	4th *	17-2.42.3	Original	17-2.47.7	Original
17-2.36.7	Original	17-2.42.4	3rd *	17-2.48.1	Original
17-2.37.1	Original	17-2.42.5	Original	17-2.48.2	Original
17-2.37.2	Original	17-2.42.6	3rd *	17-2.48.3	Original
17-2.37.3	Original	17-2.42.7	Original	17-2.48.4	3rd *
17-2.37.4	3rd *	17-2.43.1	Original	17-2.48.5	Original
17-2.37.5	Original	17-2.43.2	Original	17-2.48.6	3rd *
17-2.37.6	4th *	17-2.43.3	Original	17-2.48.7	Original
17-2.37.7	Original	17-2.43.4	3rd *	17-2.49.1	Original
17-2.38.1	Original	17-2.43.5	Original	17-2.49.2	Original
17-2.38.2	Original	17-2.43.6	3rd *	17-2.49.3	Original
17-2.38.3	Original	17-2.43.7	Original	17-2.49.4	3rd *
17-2.38.4	3rd *	17-2.44.1	Original	17-2.49.5	Original
17-2.38.5	Original	17-2.44.2	Original	17-2.49.6	3rd *
17-2.38.6	4th *	17-2.44.3	Original	17-2.49.7	Original
17-2.38.7	Original	17-2.44.4	3rd *	17-2.50.1	Original
17-2.39.1	Original	17-2.44.5	Original	17-2.50.2	Original
17-2.39.2	Original	17-2.44.6	3rd *	17-2.50.3	Original
17-2.39.3	Original	17-2.44.7	Original	17-2.50.4	3rd *
17-2.39.4	3rd *	17-2.45.1	Original	17-2.50.5	Original
17-2.39.5	Original	17-2.45.2	Original	17-2.50.6	3rd *
17-2.39.6	4th *	17-2.45.3	Original	17-2.50.7	Original
17-2.39.7	Original	17-2.45.4	3rd *	17-2.51.1	Original
17-2.40.1	Original	17-2.45.5	Original	17-2.51.2	Original

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17-2.51.4	3rd *	17-2.57.1	Original	17-2.62.5	Original
17-2.51.5	Original	17-2.57.2	Original	17-2.62.6	1st *
17-2.51.6	3rd *	17-2.57.3	Original	17-2.62.7	Original
17-2.51.7	Original	17-2.57.4	3rd *	17-2.63.1	Original
17-2.52.1	Original	17-2.57.5	Original	17-2.63.2	Original
17-2.52.2	Original	17-2.57.6	3rd *	17-2.63.3	Original
17-2.52.3	Original	17-2.57.7	Original	17-2.63.4	1st *
17-2.52.4	3rd *	17-2.58.1	Original	17-2.63.5	Original
17-2.52.5	Original	17-2.58.2	Original	17-2.63.6	1st *
17-2.52.6	3rd *	17-2.58.3	Original	17-2.63.7	Original
17-2.52.7	Original	17-2.58.4	2nd *	17-2.64.1	Original
17-2.53.1	Original	17-2.58.5	Original	17-2.64.2	Original
17-2.53.2	Original	17-2.58.6	2nd *	17-2.64.3	Original
17-2.53.3	Original	17-2.58.7	Original	17-2.64.4	1st *
17-2.53.4	3rd	17-2.59.1	Original	17-2.64.5	Original
17-2.53.5	Original	17-2.59.2	Original	17-2.64.6	1st *
17-2.53.6	3rd *	17-2.59.3	Original	17-2.64.7	Original
17-2.53.7	Original	17-2.59.4	1st *	17-2.65.1	Original
17-2.54.1	Original	17-2.59.5	Original	17-2.65.2	Original
17-2.54.2	Original	17-2.59.6	1st *	17-2.65.3	Original
17-2.54.3	Original	17-2.59.7	Original	17-2.65.4	1st *
17-2.54.4	3rd *	17-2.60.1	Original	17-2.65.5	Original
17-2.54.5	Original	17-2.60.2	Original	17-2.65.6	1st *
17-2.54.6	3rd *	17-2.60.3	Original	17-2.65.7	Original
17-2.54.7	Original	17-2.60.4	1st *	17-2.66.1	Original
17-2.55.1	Original	17-2.60.5	Original	17-2.66.2	Original
17-2.55.2	Original	17-2.60.6	1st *	17-2.66.3	Original
17-2.55.3	Original	17-2.60.7	Original	17-2.66.4	1st *
17-2.55.4	3rd *	17-2.61.1	Original	17-2.66.5	Original
17-2.55.5	Original	17-2.61.2	Original	17-2.66.6	1st *
17-2.55.6	3rd *	17-2.61.3	Original	17-2.66.7	Original
17-2.55.7	Original	17-2.61.4	1st *	17-2.67.1	Original
17-2.56.1	Original	17-2.61.5	Original	17-2.67.2	Original
17-2.56.2	Original	17-2.61.6	1st *	17-2.67.3	Original
17-2.56.3	Original	17-2.61.7	Original	17-2.67.4	1st *
17-2.56.4	3rd *	17-2.62.1	Original	17-2.67.5	Original
17-2.56.5	Original	17-2.62.2	Original	17-2.67.6	1st *
17-2.56.6	3rd *	17-2.62.3	Original	17-2.67.7	Original

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17-2.68.1	Original	17-2.73.5	1st *	17-3.2.1	6th
17-2.68.2	Original	17-2.73.6	Original	17-3.2.2	6th
17-2.68.3	Original	17-2.73.7	Original	17-3.2.3	6th
17-2.68.4	1st	17-2.74.1	Original	17-3.2.4	6th
17-2.68.5	Original	17-2.74.2	Original	17-3.2.5	6th
17-2.68.6	1st	17-2.74.3	Original	17-3.2.6	6th
17-2.68.7	Original	17-2.74.4	Original	17-3.2.7	6th
17-2.69.1	Original	17-2.74.5	Original	17-3.2.8	6th
17-2.69.2	Original	17-2.74.6	Original	17-3.2.9	6th
17-2.69.3	Original	17-2.74.7	Original	17-3.2.10	6th
17-2.69.4	1st	17-2.75.1	Original	17-3.2.11	6th
17-2.69.5	Original	17-2.75.2	Original	17-3.2.12	6th
17-2.69.6	1st	17-2.75.3	Original	17-3.2.13	6th
17-2.69.7	Original	17-2.75.4	Original	17-3.2.14	6th
17-2.70.1	Original	17-2.75.5	Original	17-3.2.15	6th
17-2.70.2	Original	17-2.75.6	Original	17-3.3.1	6th
17-2.70.3	Original	17-2.75.7	Original	17-3.3.2	6th
17-2.70.4	1st	17-2.76.1	Original	17-3.3.3	6th
17-2.70.5	Original	17-2.76.2	Original	17-3.3.4	6th
17-2.70.6	1st	17-2.76.3	Original	17-3.3.5	6th
17-2.70.7	Original	17-2.76.4	Original	17-3.3.6	6th
17-2.71.1	Original	17-2.76.5	Original	17-3.3.7	6th
17-2.71.2	Original	17-2.76.6	Original	17-3.3.8	6th
17-2.71.3	Original	17-2.76.7	Original	17-3.3.9	6th
17-2.71.4	1st	17-3.1.1	6th	17-3.3.10	6th
17-2.71.5	Original	17-3.1.2	6th	17-3.3.11	6th
17-2.71.6	1st	17-3.1.3	6th	17-3.3.12	6th
17-2.71.7	Original	17-3.1.4	6th	17-3.3.13	6th
17-2.72.1	Original	17-3.1.5	6th	17-3.3.14	6th
17-2.72.2	Original	17-3.1.6	6th	17-3.3.15	6th
17-2.72.3	Original	17-3.1.7	6th	17-3.4.1	6th
17-2.72.4	Original	17-3.1.8	6th	17-3.4.2	6th
17-2.72.5	Original	17-3.1.9	6th	17-3.4.3	6th
17-2.72.6	Original	17-3.1.10	5th	17-3.4.4	6th
17-2.72.7	Original	17-3.1.11	6th	17-3.4.5	6th
17-2.73.1	1st *	17-3.1.12	6th	17-3.4.6	5th
17-2.73.2	1st *	17-3.1.13	6th	17-3.4.7	6th
17-2.73.3	1st *	17-3.1.14	6th	17-3.4.8	6th
17-2.73.4	Original	17-3.1.15	6th	17-3.4.9	6th

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17-3.4.11	6th	17-3.7.5	5th	17-3.9.14	6th
17-3.4.12	6th	17-3.7.6	4th	17-3.9.15	6th
17-3.4.13	6th	17-3.7.7	5th	17-3.10.1	Original
17-3.4.14	6th	17-3.7.8	5th	17-3.11.1	Original
17-3.4.15	6th	17-3.7.9	5th	17-3.12.1	Original
17-3.5.1	6th	17-3.7.10	4th	17-3.13.1	Original
17-3.5.2	6th	17-3.7.11	5th	17-3.14.1	Original
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17-3.5.4	6th	17-3.7.13	5th	17-3.16.1	Original
17-3.5.5	6th	17-3.7.14	5th	17-3.17.1	1st
17-3.5.6	6th	17-3.7.15	5th	17-3.17.2	3rd
17-3.5.7	6th	17-3.8.1	6th	17-3.17.3	2nd
17-3.5.8	6th	17-3.8.2	6th	17-3.17.4	Original
17-3.5.9	6th	17-3.8.3	6th	17-3.17.5	Original
17-3.5.10	6th	17-3.8.4	6th	17-3.17.6	Original
17-3.5.11	6th	17-3.8.5	6th	17-3.17.7	2nd
17-3.5.12	6th	17-3.8.6	6th	17-3.17.8	2nd
17-3.5.13	6th	17-3.8.7	6th	17-3.17.9	1st
17-3.5.14	6th	17-3.8.8	6th	17-3.17.10	Original
17-3.5.15	6th	17-3.8.9	6th	17-3.17.11	6th *
17-3.6.1	4th	17-3.8.10	6th	17-3.17.12	1st *
17-3.6.2	3rd	17-3.8.11	6th	17-3.17.13	1st
17-3.6.3	3rd	17-3.8.12	6th	17-3.17.14	1st
17-3.6.4	3rd	17-3.8.13	6th	17-3.17.15	1st
17-3.6.5	3rd	17-3.8.14	6th	17-3.18.1	2nd
17-3.6.6	3rd	17-3.8.15	6th	17-3.18.2	2nd
17-3.6.7	3rd	17-3.9.1	6th	17-3.18.3	2nd
17-3.6.8	3rd	17-3.9.2	6th	17-3.18.4	2nd
17-3.6.9	3rd	17-3.9.3	6th	17-3.18.5	2nd
17-3.6.10	3rd	17-3.9.4	6th	17-3.18.6	2nd
17-3.6.11	3rd	17-3.9.5	6th	17-3.18.7	2nd
17-3.6.12	3rd	17-3.9.6	6th	17-3.18.8	2nd
17-3.6.13	4th	17-3.9.7	6th	17-3.18.9	2nd
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17-3.6.15	4th	17-3.9.9	6th	17-3.18.11	2nd
17-3.7.1	5th	17-3.9.10	6th	17-3.18.12	2nd
17-3.7.2	4th	17-3.9.11	6th	17-3.18.13	2nd
17-3.7.3	4th	17-3.9.12	6th	17-3.18.14	2nd

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17-3.18.13	2nd 2nd	17-3.21.9	2nd	17-3.24.3 17-3.24.4	6th
			7th *		6th
17-3.19.2	2nd 2nd	17-3.21.11 17-3.21.12	3rd *	17-3.24.5	6th
17-3.19.3 17-3.19.4	2nd 2nd	17-3.21.12	2nd	17-3.24.6 17-3.24.7	6th
17-3.19.4		17-3.21.13	3rd	17-3.24.7	6th
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17-3.19.7	2nd	17-3.22.1	2nd	17-3.24.10	6th
17-3.19.8	2nd	17-3.22.2	2nd	17-3.24.11	6th
17-3.19.9	2nd	17-3.22.3	2nd	17-3.24.12	6th
17-3.19.10	2nd	17-3.22.4	2nd	17-3.24.13	6th
17-3.19.11	2nd	17-3.22.5	2nd	17-3.24.14	6th
17-3.19.12	2nd	17-3.22.6	2nd	17-3.24.15	6th
17-3.19.13	2nd	17-3.22.7	2nd	17-3.25.1	2nd
17-3.19.14	2nd	17-3.22.8	2nd	17-3.25.2	2nd
17-3.19.15	2nd	17-3.22.9	6th	17-3.25.3	2nd
17-3.20.1	2nd	17-3.22.10	2nd	17-3.25.4	2nd
17-3.20.2	2nd	17-3.22.11	7th *	17-3.25.5	2nd
17-3.20.3	2nd	17-3.22.12	3rd *	17-3.25.6	2nd
17-3.20.4	2nd	17-3.22.13	2nd	17-3.25.7	2nd
17-3.20.5	2nd	17-3.22.14	3rd	17-3.25.8	2nd
17-3.20.6	2nd	17-3.22.15	3rd	17-3.25.9	2nd
17-3.20.7	2nd	17-3.23.1	2nd	17-3.25.10	2nd
17-3.20.8	2nd	17-3.23.2	2nd	17-3.25.11	7th *
17-3.20.9	2nd	17-3.23.3	2nd	17-3.25.12	3rd *
17-3.20.10	2nd	17-3.23.4	2nd	17-3.25.13	2nd
17-3.20.11	2nd	17-3.23.5	2nd	17-3.25.14	3rd
17-3.20.12	2nd	17-3.23.6	2nd	17-3.25.15	3rd
17-3.20.13	2nd	17-3.23.7	2nd	17-3.26.1	3rd
17-3.20.14	2nd	17-3.23.8	2nd	17-3.26.2	5th
17-3.20.15	2nd	17-3.23.9	5th	17-3.26.3	5th
17-3.21.1	2nd	17-3.23.10	2nd	17-3.26.4	5th
17-3.21.2	2nd	17-3.23.11	8th *	17-3.26.5	5th
17-3.21.3	2nd	17-3.23.12	6th *	17-3.26.6	Original
17-3.21.4	2nd	17-3.23.13	2nd	17-3.26.7	1st
17-3.21.5	2nd	17-3.23.14	3rd	17-3.26.8	1st
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17-3.26.14	1st	17-3.29.8	2nd	17-3.32.2	Original
17-3.26.15	1st	17-3.29.9	2nd	17-3.32.3	5th
17-3.27.1	3rd *	17-3.29.10	2nd	17-3.32.4	2nd
17-3.27.2	6th *	17-3.29.11	5th	17-3.32.5	2nd
17-3.27.3	6th *	17-3.29.12	3rd	17-3.32.6	1st
17-3.27.4	3rd *	17-3.29.13	2nd	17-3.32.7	3rd
17-3.27.5	3rd *	17-3.29.14	2nd	17-3.32.8	Original
17-3.27.6	3rd *	17-3.29.15	2nd	17-3.32.9	3rd
17-3.27.7	3rd *	17-3.30.1	3rd	17-3.32.10	2nd
17-3.27.8	3rd *	17-3.30.2	3rd	17-3.32.11	6th
17-3.27.9	3rd *	17-3.30.3	4th	17-3.32.12	4th
17-3.27.10	3rd *	17-3.30.4	2nd	17-3.32.13	2nd
17-3.27.11	6th *	17-3.30.5	2nd	17-3.32.14	2nd
17-3.27.12	5tth *	17-3.30.6	2nd	17-3.32.15	2nd
17-3.27.13	3rd *	17-3.30.7	3rd	17-3.33.1	4th
17-3.27.14	3rd	17-3.30.8	3rd	17-3.33.2	Original
17-3.27.15	3rd	17-3.30.9	3rd	17-3.33.3	5th
17-3.28.1	5th	17-3.30.10	2nd	17-3.33.4	2nd
17-3.28.2	6th	17-3.30.11	6th	17-3.33.5	2nd
17-3.28.3	6th	17-3.30.12	6th	17-3.33.6	1st
17-3.28.4	4th	17-3.30.13	3rd	17-3.33.7	3rd
17-3.28.5	5th	17-3.30.14	1st	17-3.33.8	Original
17-3.28.6	4th	17-3.30.15	1st	17-3.33.9	3rd
17-3.28.7	3rd	17-3.31.1	Original	17-3.33.10	2nd
17-3.28.8	3rd	17-3.31.2	Original	17-3.33.11	6th
17-3.28.9	6th	17-3.31.3	5th	17-3.33.12	4th
17-3.28.10	3rd	17-3.31.4	Original	17-3.33.13	2nd
17-3.28.11	6th	17-3.31.5	Original	17-3.33.14	2nd
17-3.28.12	3rd	17-3.31.6	Original	17-3.33.15	2nd
17-3.28.13	3rd	17-3.31.7	Original	17-3.34.1	2nd
17-3.28.14	3rd	17-3.31.8	Original	17-3.34.2	2nd
17-3.28.15	3rd	17-3.31.9	5th	17-3.34.3	2nd
17-3.29.1	2nd	17-3.31.10	Original	17-3.34.4	2nd
17-3.29.2	2nd	17-3.31.11	6th	17-3.34.5	2nd
17-3.29.3	2nd	17-3.31.12	4th	17-3.34.6	2nd
17-3.29.4	2nd	17-3.31.13	Original	17-3.34.7	2nd
17-3.29.5	2nd	17-3.31.14	1st	17-3.34.8	2nd

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17-3.34.10	2nd	17-3.37.5	Original	17-3.40.1	4th
17-3.34.11	4th	17-3.37.6	Original	17-3.40.2	1st
17-3.34.12	3rd	17-3.37.7	Original	17-3.40.3	4th
17-3.34.13	2nd	17-3.37.8	Original	17-3.40.4	4th
17-3.34.14	1st	17-3.37.9	4th	17-3.40.5	1st
17-3.34.15	1st	17-3.37.10	Original	17-3.40.6	Original
17-3.35.1	3rd	17-3.37.11	5th	17-3.40.7	1st
17-3.35.2	3rd	17-3.37.12	1st	17-3.40.8	1st
17-3.35.3	3rd	17-3.37.13	Original	17-3.40.9	4th
17-3.35.4	3rd	17-3.37.14	Original	17-3.40.10	1st
17-3.35.5	3rd	17-3.38.1	Original	17-3.40.11	4th
17-3.35.6	3rd	17-3.38.2	1st	17-3.40.12	Original
17-3.35.7	3rd	17-3.38.3	1st	17-3.40.13	4th
17-3.35.8	3rd	17-3.38.4	Original	17-3.40.14	4th
17-3.35.9	3rd	17-3.38.5	Original	17-3.40.15	4th
17-3.35.10	3rd	17-3.38.6	Original	17-3.41.1	Original
17-3.35.11	3rd	17-3.38.7	Original	17-3.41.2	Original
17-3.35.12	3rd	17-3.38.8	Original	17-3.41.3	Original
17-3.35.13	3rd	17-3.38.9	1st	17-3.41.4	Original
17-3.35.14	3rd	17-3.38.10	Original	17-3.41.5	Original
17-3.35.15	3rd	17-3.38.11	5th	17-3.41.6	Original
17-3.36.1	2nd	17-3.38.12	3rd	17-3.41.7	Original
17-3.36.2	2nd	17-3.38.13	Original	17-3.41.8	Original
17-3.36.3	2nd	17-3.38.14	Original	17-3.41.9	Original
17-3.36.4	2nd	17-3.39.1	1st *	17-3.41.10	Original
17-3.36.5	2nd	17-3.39.2	1st *	17-3.41.11	3rd
17-3.36.6	2nd	17-3.39.3	1st *	17-3.41.12	1st
17-3.36.7	2nd	17-3.39.4	1st *	17-3.41.13	Original
17-3.36.8	2nd	17-3.39.5	1st *	17-3.41.14	1st
17-3.36.9	4th	17-3.39.6	1st *	17-3.41.15	1st
17-3.36.10	2nd	17-3.39.7	1st *	17-3.42.1	Original
17-3.36.11	5th	17-3.39.8	1st *	17-3.42.2	Original
17-3.36.12	5th	17-3.39.9	1st *	17-3.42.3	Original
17-3.36.13	2nd	17-3.39.10	1st *	17-3.42.4	Original
17-3.36.14	Original	17-3.39.11	5th *	17-3.42.5	Original
17-3.37.1	Original	17-3.39.12	2nd *	17-3.42.6	Original
17-3.37.2	Original	17-3.39.13	1st *	17-3.42.7	Original
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17-3.42.11	3rd *	17-3.45.5	1st	17-3.48.1	3rd
17-3.42.12	1st *	17-3.45.6	1st	17-3.48.2	3rd
17-3.42.13	Original	17-3.45.7	1st	17-3.48.3	3rd
17-3.42.14	1st	17-3.45.8	1st	17-3.48.4	3rd
17-3.42.15	1st	17-3.45.9	3rd	17-3.48.5	3rd
17-3.43.1	1st	17-3.45.10	1st	17-3.48.6	3rd
17-3.43.2	Original	17-3.45.11	4th *	17-3.48.7	3rd
17-3.43.3	Original	17-3.45.12	2nd *	17-3.48.8	3rd
17-3.43.4	Original	17-3.45.13	1st	17-3.48.9	3rd
17-3.43.5	Original	17-3.45.14	Original	17-3.48.10	3rd
17-3.43.6	Original	17-3.46.1	2nd	17-3.48.11	3rd
17-3.43.7	Original	17-3.46.2	2nd	17-3.48.12	3rd
17-3.43.8	Original	17-3.46.3	2nd	17-3.48.13	3rd
17-3.43.9	Original	17-3.46.4	2nd	17-3.48.14	3rd
17-3.43.10	Original	17-3.46.5	2nd	17-3.48.15	3rd
17-3.43.11	2nd *	17-3.46.6	2nd	17-3.49.1	Original
17-3.43.12	1st *	17-3.46.7	2nd	17-3.49.2	Original
17-3.43.13	Original	17-3.46.8	2nd	17-3.49.3	Original
17-3.43.14	1st	17-3.46.9	2nd	17-3.49.4	Original
17-3.43.15	1st	17-3.46.10	2nd	17-3.49.5	Original
17-3.44.1	2nd	17-3.46.11	2nd	17-3.49.6	Original
17-3.44.2	2nd	17-3.46.12	2nd	17-3.49.7	Original
17-3.44.3	2nd	17-3.46.13	2nd	17-3.49.8	Original
17-3.44.4	1st	17-3.46.14	2nd	17-3.49.9	Original
17-3.44.5	1st	17-3.46.15	2nd	17-3.49.10	Original
17-3.44.6	1st	17-3.47.1	Original	17-3.49.11	1st *
17-3.44.7	1st	17-3.47.2	Original	17-3.49.12	1st *
17-3.44.8	1st	17-3.47.3	Original	17-3.49.13	Original
17-3.44.9	1st	17-3.47.4	Original	17-3.49.14	Original
17-3.44.10	1st	17-3.47.5	Original	17-3.50.1	Original
17-3.44.11	3rd *	17-3.47.6	Original	17-3.50.2	Original
17-3.44.12	2nd *	17-3.47.7	Original	17-3.50.3	Original
17-3.44.13	1st	17-3.47.8	Original	17-3.50.4	Original
17-3.44.14	1st	17-3.47.9	Original	17-3.50.5	Original
17-3.44.15	1st	17-3.47.10	Original	17-3.50.6	Original
17-3.45.1	1st	17-3.47.11	2nd *	17-3.50.7	Original
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17-3.50.10	Original	17-3.53.7	Original	17-3.56.4	2nd
17-3.50.11	1st *	17-3.53.8	Original	17-3.56.5	2nd
17-3.50.12	1st *	17-3.53.9	Original	17-3.56.6	2nd
17-3.50.13	Original	17-3.53.10	Original	17-3.56.7	2nd
17-3.50.14	Original	17-3.53.11	4th *	17-3.56.8	2nd
17-3.51.1	1st	17-3.53.12	1st *	17-3.56.9	2nd
17-3.51.2	1st	17-3.53.13	Original	17-3.56.10	2nd
17-3.51.3	1st	17-3.53.14	Original	17-3.56.11	2nd
17-3.51.4	1st	17-3.54.1	Original	17-3.56.12	2nd
17-3.51.5	1st	17-3.54.2	1st	17-3.56.13	2nd
17-3.51.6	1st	17-3.54.3	1st	17-3.56.14	2nd
17-3.51.7	1st	17-3.54.4	Original	17-3.56.15	2nd
17-3.51.8	1st	17-3.54.5	Original	17-3.57.1	2nd
17-3.51.9	1st	17-3.54.6	Original	17-3.57.2	1st
17-3.51.10	1st	17-3.54.7	Original	17-3.57.3	3rd
17-3.51.11	4th *	17-3.54.8	Original	17-3.57.4	2nd
17-3.51.12	2nd *	17-3.54.9	Original	17-3.57.5	1st
17-3.51.13	1st	17-3.54.10	Original	17-3.57.6	1st
17-3.51.14	Original	17-3.54.11	4th *	17-3.57.7	1st
17-3.52.1	Original	17-3.54.12	1st *	17-3.57.8	Original
17-3.52.2	Original	17-3.54.13	Original	17-3.57.9	2nd
17-3.52.3	Original	17-3.54.14	Original	17-3.57.10	1st
17-3.52.4	Original	17-3.55.1	Original	17-3.57.11	4th *
17-3.52.5	Original	17-3.55.2	2nd	17-3.57.12	2nd *
17-3.52.6	Original	17-3.55.3	2nd	17-3.57.13	1st
17-3.52.7	Original	17-3.55.4	Original	17-3.57.14	1st
17-3.52.8	Original	17-3.55.5	Original	17-3.57.15	1st
17-3.52.9	Original	17-3.55.6	1st	17-3.58.1	Original
17-3.52.10	Original	17-3.55.7	Original	17-3.58.2	Original
17-3.52.11	3rd *	17-3.55.8	Original	17-3.58.3	Original
17-3.52.12	1st *	17-3.55.9	2nd	17-3.58.4	Original
17-3.52.13	Original	17-3.55.10	Original	17-3.58.5	Original
17-3.52.14	Original	17-3.55.11	3rd *	17-3.58.6	Original
17-3.53.1	Original	17-3.55.12	1st *	17-3.58.7	Original
17-3.53.2	3rd	17-3.55.13	Original	17-3.58.8	Original
17-3.53.3	3rd	17-3.55.14	Original	17-3.58.9	Original
17-3.53.4	Original	17-3.56.1	2nd	17-3.58.10	Original
17-3.53.5	Original	17-3.56.2	2nd	17-3.58.11	1st *

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15.0.50.10	a di	150615	0	15.0 (1.0	0
17-3.58.12	1st *	17-3.61.7	Original	17-3.64.2	Original
17-3.58.13	Original	17-3.61.8	Original	17-3.64.3	Original
17-3.58.14	Original	17-3.61.9	Original	17-3.64.4	Original
17-3.59.1	Original	17-3.61.10	Original	17-3.64.5	Original
17-3.59.2	Original	17-3.61.11	1st	17-3.64.6	Original
17-3.59.3	Original	17-3.61.12	1st	17-3.64.7	Original
17-3.59.4	Original	17-3.61.13	Original	17-3.64.8	Original
17-3.59.5	Original	17-3.61.14	Original	17-3.64.9	Original
17-3.59.6	Original	17-3.61.15	Original	17-3.64.10	Original
17-3.59.7	Original	17-3.62.1	1st	17-3.64.11	1st *
17-3.59.8	Original	17-3.62.2	1st	17-3.64.12	1st *
17-3.59.9	Original	17-3.62.3	1st	17-3.64.13	Original
17-3.59.10	Original	17-3.62.4	1st	17-3.64.14	Original
17-3.59.11	Original	17-3.62.5	1st	17-3.65.1	Original
17-3.59.12	Original	17-3.62.6	1st	17-3.65.2	Original
17-3.59.13	Original	17-3.62.7	1st	17-3.65.3	1st
17-3.59.14	Original	17-3.62.8	1st	17-3.65.4	Original
17-3.59.15	Original	17-3.62.9	1st	17-3.65.5	Original
17-3.60.1	1st	17-3.62.10	1st	17-3.65.6	Original
17-3.60.2	1st	17-3.62.11	1st	17-3.65.7	Original
17-3.60.3	1st	17-3.62.12	1st	17-3.65.8	Original
17-3.60.4	1st	17-3.62.13	1st	17-3.65.9	1st
17-3.60.5	1st	17-3.62.14	1st	17-3.65.10	Original
17-3.60.6	1st	17-3.62.15	1st	17-3.65.11	1st
17-3.60.7	1st	17-3.63.1	Original	17-3.65.12	1st
17-3.60.8	1st	17-3.63.2	Original	17-3.65.13	Original
17-3.60.9	1st	17-3.63.3	Original	17-3.65.14	1st
17-3.60.10	1st	17-3.63.4	Original	17-3.65.15	Original
17-3.60.11	1st	17-3.63.5	Original	17-3.66.1	Original
17-3.60.12	1st	17-3.63.6	Original	17-3.66.2	Original
17-3.60.13	1st	17-3.63.7	Original	17-3.66.3	Original
17-3.60.14	1st	17-3.63.8	Original	17-3.66.4	Original
17-3.60.15	1st	17-3.63.9	Original	17-3.66.5	Original
17-3.61.1	Original	17-3.63.10	Original	17-3.66.6	Original
17-3.61.2	Original	17-3.63.11	1st *	17-3.66.7	Original
17-3.61.3	Original	17-3.63.12	1st *	17-3.66.8	Original
17-3.61.4	Original	17-3.63.13	Original	17-3.66.9	Original
17-3.61.5	Original	17-3.63.14	Original	17-3.66.10	Original
17-3.61.6	Original	17-3.64.1	Original	17-3.66.11	1st *
17-3.01.0	Original	11-3.07.1	Original	1/-3.00.11	131

^{*}New or revised page.

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17-3.66.12	1st *	17-3.69.9	1st	17-3.72.3	Original
17-3.66.13	Original	17-3.69.10	Original	17-3.72.4	Original
17-3.66.14	Original	17-3.69.11	1st	17-3.72.5	Original
17-3.67.1	Original	17-3.69.12	1st	17-3.73.1	Original
17-3.67.2	Original	17-3.69.13	Original	17-3.73.2	Original
17-3.67.3	Original	17-3.69.14	1st	17-3.73.3	Original
17-3.67.4	Original	17-3.69.15	Original	17-3.73.4	Original
17-3.67.5	Original	17-3.70.1	Original	17-3.73.5	Original
17-3.67.6	Original	17-3.70.2	Original	17-3.73.6	Original
17-3.67.7	Original	17-3.70.3	1st	17-3.73.7	Original
17-3.67.8	Original	17-3.70.4	Original	17-3.73.8	Original
17-3.67.9	Original	17-3.70.5	Original	17-3.73.9	Original
17-3.67.10	Original	17-3.70.6	Original	17-3.73.10	Original
17-3.67.11	1st *	17-3.70.7	Original	17-3.73.11	1st *
17-3.67.12	1st *	17-3.70.8	Original	17-3.73.12	1st *
17-3.67.13	Original	17-3.70.9	1st	17-3.73.13	Original
17-3.67.14	Original	17-3.70.10	Original	17-3.73.14	Original
17-3.68.1	1st	17-3.70.11	1st	17-3.74.1	Original
17-3.68.2	1st	17-3.70.12	1st	17-3.74.2	Original
17-3.68.3	1st	17-3.70.13	Original	17-3.74.3	Original
17-3.68.4	1st	17-3.70.14	Original	17-3.74.4	Original
17-3.68.5	1st	17-3.70.15	Original	17-3.74.5	Original
17-3.68.6	1st	17-3.71.1	Original	17-3.74.6	Original
17-3.68.7	1st	17-3.71.2	Original	17-3.74.7	Original
17-3.68.8	1st	17-3.71.3	1st	17-3.74.8	Original
17-3.68.9	1st	17-3.71.4	Original	17-3.74.9	Original
17-3.68.10	1st	17-3.71.5	Original	17-3.74.10	Original
17-3.68.11	2nd *	17-3.71.6	Original	17-3.74.11	Original
17-3.68.12	2nd *	17-3.71.7	Original	17-3.74.12	Original
17-3.68.13	1st	17-3.71.8	Original	17-3.74.13	Original
17-3.68.14	1st	17-3.71.9	1st	17-3.74.14	Original
17-3.69.1	Original	17-3.71.10	Original	17-3.74.15	Original
17-3.69.2	Original	17-3.71.11	1st	17-3.75.1	Original
17-3.69.3	1st	17-3.71.12	1st	17-3.75.2	Original
17-3.69.4	Original	17-3.71.13	Original	17-3.75.3	Original
17-3.69.5	Original	17-3.71.14	1st	17-3.75.4	Original
17-3.69.6	Original	17-3.71.15	Original	17-3.75.5	Original
17-3.69.7	Original	17-3.72.1	Original	17-3.75.6	Original
17-3.69.8	Original	17-3.72.2	Original	17-3.75.7	Original

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17-3.75.8	Original	17-4.2.6	Original	17-4.7.4	Original
17-3.75.9	Original	17-4.2.7	Original	17-4.7.5	Original
17-3.75.10	Original	17-4.2.8	Original	17-4.7.6	Original
17-3.75.11	1st *	17-4.2.9	Original	17-4.7.7	Original
17-3.75.12	1st *	17-4.2.10	Original	17-4.7.8	Original
17-3.75.13	Original	17-4.3.1	Original	17-4.7.9	Original
17-3.75.14	Original	17-4.3.2	Original	17-4.7.10	Original
17-3.76.1	Original	17-4.3.3	Original	17-4.8.1	Original
17-3.76.2	Original	17-4.3.4	Original	17-4.8.2	Original
17-3.76.3	Original	17-4.3.5	Original	17-4.8.3	Original
17-3.76.4	Original	17-4.3.6	Original	17-4.8.4	Original
17-3.76.5	Original	17-4.3.7	Original	17-4.8.5	Original
17-3.76.6	Original	17-4.3.8	Original	17-4.8.6	Original
17-3.76.7	Original	17-4.3.9	Original	17-4.8.7	Original
17-4.0.1	2nd	17-4.3.10	Original	17-4.8.8	Original
17-4.0.2	2nd	17-4.4.1	Original	17-4.8.9	Original
17-4.0.3	2nd	17-4.4.2	Original	17-4.8.10	Original
17-4.0.4	2nd	17-4.4.3	Original	17-4.9.1	Original
17-4.0.5	2nd	17-4.4.4	Original	17-4.9.2	Original
17-4.0.6	2nd	17-4.4.5	Original	17-4.9.3	Original
17-4.0.7	2nd	17-4.4.6	Original	17-4.9.4	Original
17-4.0.8	2nd	17-4.4.7	Original	17-4.9.5	Original
17-4.0.9	2nd	17-4.4.8	Original	17-4.9.6	Original
17-4.0.10	2nd	17-4.4.9	Original	17-4.9.7	Original
17-4.1.1	Original	17-4.4.10	Original	17-4.9.8	Original
17-4.1.2	Original	17-4.5.1	Original	17-4.9.9	Original
17-4.1.3	Original	17-4.5.2	Original	17-4.9.10	Original
17-4.1.4	Original	17-4.5.3	Original	17-4.10.1	Original
17-4.1.5	Original	17-4.5.4	Original	17-4.11.1	Original
17-4.1.6	Original	17-4.5.5	Original	17-4.12.1	Original
17-4.1.7	Original	17-4.5.6	Original	17-4.13.1	Original
17-4.1.8	Original	17-4.5.7	Original	17-4.14.1	Original
17-4.1.9	Original	17-4.5.8	Original	17-4.15.1	Original
17-4.1.10	Original	17-4.5.9	Original	17-4.16.1	Original
17-4.2.1	Original	17-4.5.10	Original	17-4.17.1	Original
17-4.2.2	Original	17-4.6.1	Original	17-4.17.2	Original
17-4.2.3	Original	17-4.7.1	Original	17-4.17.3	Original
17-4.2.4	Original	17-4.7.2	Original	17-4.17.4	Original
17-4.2.5	Original	17-4.7.3	Original	17-4.17.5	Original

^{*}New or revised page.

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17-4.17.6	Original	17-4.24.2	Original	17-4.28.1	Original
17-4.17.7	Original	17-4.24.3	Original	17-4.28.2	1st
17-4.17.8	Original	17-4.24.4	Original	17-4.28.3	1st
17-4.17.9	Original	17-4.24.5	Original	17-4.28.4	1st
17-4.17.10	Original	17-4.24.6	Original	17-4.28.5	Original
17-4.18.1	Original	17-4.24.7	Original	17-4.28.6	2nd *
17-4.19.1	Original	17-4.24.8	Original	17-4.28.7	Original
17-4.20.1	Original	17-4.24.9	Original	17-4.28.8	Original
17-4.21.1	Original	17-4.24.10	Original	17-4.28.9	Original
17-4.21.2	Original	17-4.25.1	Original	17-4.28.10	Original
17-4.21.3	Original	17-4.25.2	Original	17-4.29.1	1st
17-4.21.4	Original	17-4.25.3	Original	17-4.29.2	1st
17-4.21.5	Original	17-4.25.4	Original	17-4.29.3	1st
17-4.21.6	Original	17-4.25.5	Original	17-4.29.4	1st
17-4.21.7	Original	17-4.25.6	Original	17-4.29.5	Original
17-4.21.8	Original	17-4.25.7	Original	17-4.29.6	1st
17-4.21.9	Original	17-4.25.8	Original	17-4.29.7	Original
17-4.21.10	Original	17-4.25.9	Original	17-4.29.8	Original
17-4.22.1	Original	17-4.25.10	Original	17-4.29.9	Original
17-4.22.2	Original	17-4.26.1	Original	17-4.29.10	Original
17-4.22.3	Original	17-4.26.2	Original	17-4.30.1	1st
17-4.22.4	Original	17-4.26.3	Original	17-4.30.2	2nd
17-4.22.5	Original	17-4.26.4	Original	17-4.30.3	2nd
17-4.22.6	Original	17-4.26.5	Original	17-4.30.4	2nd
17-4.22.7	Original	17-4.26.6	Original	17-4.30.5	Original
17-4.22.8	Original	17-4.26.7	Original	17-4.30.6	2nd
17-4.22.9	Original	17-4.26.8	Original	17-4.30.7	Original
17-4.22.10	Original	17-4.26.9	Original	17-4.30.8	Original
17-4.23.1	Original	17-4.26.10	Original	17-4.30.9	Original
17-4.23.2	Original	17-4.27.1	Original	17-4.30.10	Original
17-4.23.3	Original	17-4.27.2	1st	17-4.31.1	2nd
17-4.23.4	Original	17-4.27.3	1st	17-4.31.2	2nd
17-4.23.5	Original	17-4.27.4	1st	17-4.31.3	2nd
17-4.23.6	Original	17-4.27.5	Original	17-4.31.4	2nd
17-4.23.7	Original	17-4.27.6	1st	17-4.31.5	Original
17-4.23.8	Original	17-4.27.7	Original	17-4.31.6	2nd
17-4.23.9	Original	17-4.27.8	Original	17-4.31.7	Original
17-4.23.10	Original	17-4.27.9	Original	17-4.31.8	Original
17-4.24.1	Original	17-4.27.10	Original	17-4.31.9	Original

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17-4.31.10	Original	17-4.35.9	Original	17-4.39.8	Original
17-4.32.1	2nd	17-4.35.10	Original	17-4.39.9	Original
17-4.32.2	2nd	17-4.36.1	2nd *	17-4.39.10	Original
17-4.32.3	1st	17-4.36.2	2nd *	17-4.40.1	Original
17-4.32.4	1st	17-4.36.3	2nd *	17-4.40.2	Original
17-4.32.5	Original	17-4.36.4	2nd *	17-4.40.3	Original
17-4.32.6	2nd	17-4.36.5	Original	17-4.40.4	Original
17-4.32.7	1st	17-4.36.6	2nd *	17-4.40.5	Original
17-4.32.8	Original	17-4.36.7	Original	17-4.40.6	Original
17-4.32.9	Original	17-4.36.8	Original	17-4.40.7	Original
17-4.32.10	Original	17-4.36.9	Original	17-4.40.8	Original
17-4.33.1	2nd	17-4.36.10	Original	17-4.40.9	Original
17-4.33.2	2nd	17-4.37.1	Original	17-4.40.10	Original
17-4.33.3	1st	17-4.37.2	Original	17-4.41.1	Original
17-4.33.4	1st	17-4.37.3	Original	17-4.41.2	Original
17-4.33.5	Original	17-4.37.4	Original	17-4.41.3	Original
17-4.33.6	2nd	17-4.37.5	Original	17-4.41.4	Original
17-4.33.7	1st	17-4.37.6	Original	17-4.41.5	Original
17-4.33.8	Original	17-4.37.7	Original	17-4.41.6	Original
17-4.33.9	Original	17-4.37.8	Original	17-4.41.7	Original
17-4.33.10	Original	17-4.37.9	Original	17-4.41.8	Original
17-4.34.1	1st	17-4.37.10	Original	17-4.41.9	Original
17-4.34.2	1st	17-4.38.1	Original	17-4.41.10	Original
17-4.34.3	1st	17-4.38.2	Original	17-4.42.1	Original
17-4.34.4	1st	17-4.38.3	Original	17-4.42.2	Original
17-4.34.5	Original	17-4.38.4	Original	17-4.42.3	Original
17-4.34.6	1st	17-4.38.5	Original	17-4.42.4	Original
17-4.34.7	Original	17-4.38.6	Original	17-4.42.5	Original
17-4.34.8	Original	17-4.38.7	Original	17-4.42.6	Original
17-4.34.9	Original	17-4.38.8	Original	17-4.42.7	Original
17-4.34.10	Original	17-4.38.9	Original	17-4.42.8	Original
17-4.35.1	Original	17-4.38.10	Original	17-4.42.9	Original
17-4.35.2	Original	17-4.39.1	Original	17-4.42.10	Original
17-4.35.3	Original	17-4.39.2	1st	17-4.43.1	Original
17-4.35.4	Original	17-4.39.3	1st	17-4.43.2	Original
17-4.35.5	Original	17-4.39.4	1st	17-4.43.3	Original
17-4.35.6	Original	17-4.39.5	Original	17-4.43.4	Original
17-4.35.7	Original	17-4.39.6	1st	17-4.43.5	Original
17-4.35.8	Original	17-4.39.7	Original	17-4.43.6	Original

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17-4.43.7	Original	17-4.47.6	Original	17-4.51.5	Original
17-4.43.8	Original	17-4.47.7	Original	17-4.51.6	1st *
17-4.43.9	Original	17-4.47.8	Original	17-4.51.7	Original
17-4.43.10	Original	17-4.47.9	Original	17-4.51.8	Original
17-4.44.1	1st *	17-4.47.10	Original	17-4.51.9	Original
17-4.44.2	1st *	17-4.48.1	Original	17-4.51.10	Original
17-4.44.3	1st *	17-4.48.2	Original	17-4.52.1	Original
17-4.44.4	1st *	17-4.48.3	Original	17-4.52.2	Original
17-4.44.5	Original	17-4.48.4	Original	17-4.52.3	Original
17-4.44.6	2nd *	17-4.48.5	Original	17-4.52.4	Original
17-4.44.7	Original	17-4.48.6	Original	17-4.52.5	Original
17-4.44.8	Original	17-4.48.7	Original	17-4.52.6	Original
17-4.44.9	Original	17-4.48.8	Original	17-4.52.7	Original
17-4.44.10	Original	17-4.48.9	Original	17-4.52.8	Original
17-4.45.1	Original	17-4.48.10	Original	17-4.52.9	Original
17-4.45.2	Original	17-4.49.1	Original	17-4.52.10	Original
17-4.45.3	Original	17-4.49.2	Original	17-4.53.1	Original
17-4.45.4	Original	17-4.49.3	Original	17-4.53.2	Original
17-4.45.5	Original	17-4.49.4	Original	17-4.53.3	Original
17-4.45.6	Original	17-4.49.5	Original	17-4.53.4	Original
17-4.45.7	Original	17-4.49.6	Original	17-4.53.5	Original
17-4.45.8	Original	17-4.49.7	Original	17-4.53.6	Original
17-4.45.9	Original	17-4.49.8	Original	17-4.53.7	Original
17-4.45.10	Original	17-4.49.9	Original	17-4.53.8	Original
17-4.46.1	Original	17-4.49.10	Original	17-4.53.9	Original
17-4.46.2	Original	17-4.50.1	Original	17-4.53.10	Original
17-4.46.3	Original	17-4.50.2	Original	17-4.54.1	Original
17-4.46.4	Original	17-4.50.3	Original	17-4.54.2	Original
17-4.46.5	Original	17-4.50.4	Original	17-4.54.3	Original
17-4.46.6	Original	17-4.50.5	Original	17-4.54.4	Original
17-4.46.7	Original	17-4.50.6	Original	17-4.54.5	Original
17-4.46.8	Original	17-4.50.7	Original	17-4.54.6	Original
17-4.46.9	Original	17-4.50.8	Original	17-4.54.7	Original
17-4.46.10	Original	17-4.50.9	Original	17-4.54.8	Original
17-4.47.1	Original	17-4.50.10	Original	17-4.54.9	Original
17-4.47.2	Original	17-4.51.1	Original	17-4.54.10	Original
17-4.47.3	Original	17-4.51.2	Original	17-4.55.1	Original
17-4.47.4	Original	17-4.51.2	Original	17-4.55.1	Original
17-4.47.5	Original	17-4.51.4	Original	17-4.55.2	Original
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^{*}New or revised page.

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	Revision		Revision		Revision
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17-4.55.4	Original	17-4.59.3	Original	17-4.63.2	Original
17-4.55.5	Original	17-4.59.4	Original	17-4.63.3	Original
17-4.55.6	Original	17-4.59.5	Original	17-4.63.4	Original
17-4.55.7	Original	17-4.59.6	Original	17-4.63.5	Original
17-4.55.8	Original	17-4.59.7	Original	17-4.63.6	Original
17-4.55.9	Original	17-4.59.8	Original	17-4.63.7	Original
17-4.55.10	Original	17-4.59.9	Original	17-4.63.8	Original
17-4.56.1	Original	17-4.59.10	Original	17-4.63.9	Original
17-4.56.2	Original	17-4.60.1	Original	17-4.63.10	Original
17-4.56.3	Original	17-4.60.2	Original	17-4.64.1	Original
17-4.56.4	Original	17-4.60.3	Original	17-4.64.2	Original
17-4.56.5	Original	17-4.60.4	Original	17-4.64.3	Original
17-4.56.6	Original	17-4.60.5	Original	17-4.64.4	Original
17-4.56.7	Original	17-4.60.6	Original	17-4.64.5	Original
17-4.56.8	Original	17-4.60.7	Original	17-4.64.6	Original
17-4.56.9	Original	17-4.60.8	Original	17-4.64.7	Original
17-4.56.10	Original	17-4.60.9	Original	17-4.64.8	Original
17-4.57.1	2nd *	17-4.60.10	Original	17-4.64.9	Original
17-4.57.2	1st *	17-4.61.1	Original	17-4.64.10	Original
17-4.57.3	1st *	17-4.61.2	Original	17-4.65.1	Original
17-4.57.4	1st *	17-4.61.3	Original	17-4.65.2	Original
17-4.57.5	Original	17-4.61.4	Original	17-4.65.3	Original
17-4.57.6	1st *	17-4.61.5	Original	17-4.65.4	Original
17-4.57.7	Original	17-4.61.6	Original	17-4.65.5	Original
17-4.57.8	Original	17-4.61.7	Original	17-4.65.6	Original
17-4.57.9	Original	17-4.61.8	Original	17-4.65.7	Original
17-4.57.10	Original	17-4.61.9	Original	17-4.65.8	Original
17-4.58.1	Original	17-4.61.10	Original	17-4.65.9	Original
17-4.58.2	Original	17-4.62.1	Original	17-4.65.10	Original
17-4.58.3	Original	17-4.62.2	Original	17-4.66.1	Original
17-4.58.4	Original	17-4.62.3	Original	17-4.66.2	Original
17-4.58.5	Original	17-4.62.4	Original	17-4.66.3	Original
17-4.58.6	Original	17-4.62.5	Original	17-4.66.4	Original
17-4.58.7	Original	17-4.62.6	Original	17-4.66.5	Original
17-4.58.8	Original	17-4.62.7	Original	17-4.66.6	Original
17-4.58.9	Original	17-4.62.8	Original	17-4.66.7	Original
17-4.58.10	Original	17-4.62.9	Original	17-4.66.8	Original
17-4.59.1	Original	17-4.62.10	Original	17-4.66.9	Original
17-4.59.2	Original	17-4.63.1	Original	17-4.66.10	Original
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^{*}New or revised page.

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17-4.67.1	Original	17-4.70.10	Original	17-4.74.10	Original *
17-4.67.2	Original	17-4.71.1	Original	17-4.75.1	Original *
17-4.67.3	Original	17-4.71.2	Original	17-4.75.2	Original *
17-4.67.4	Original	17-4.71.3	Original	17-4.75.3	Original *
17-4.67.5	Original	17-4.71.4	Original	17-4.75.4	Original *
17-4.67.6	Original	17-4.71.5	Original	17-4.75.5	Original *
17-4.67.7	Original	17-4.71.6	Original	17-4.75.6	Original *
17-4.67.8	Original	17-4.71.7	Original	17-4.75.7	Original *
17-4.67.9	Original	17-4.71.8	Original	17-4.75.8	Original *
17-4.67.10	Original	17-4.71.9	Original	17-4.75.9	Original *
17-4.68.1	Original	17-4.71.10	Original	17-4.75.10	Original *
17-4.68.2	Original	17-4.72.1	Original *	17-4.76.1	Original *
17-4.68.3	Original	17-4.72.2	Original *	17-4.76.2	Original *
17-4.68.4	Original	17-4.72.3	Original *	17-4.76.3	Original *
17-4.68.5	Original	17-4.72.4	Original *	17-4.76.4	Original *
17-4.68.6	Original	17-4.72.5	Original *	17-4.76.5	Original *
17-4.68.7	Original	17-4.72.6	Original *	17-4.76.6	Original *
17-4.68.8	Original	17-4.72.7	Original *	17-4.76.7	Original *
17-4.68.9	Original	17-4.72.8	Original *	17-4.76.8	Original *
17-4.68.10	Original	17-4.72.9	Original *	17-4.76.9	Original *
17-4.69.1	Original	17-4.73.1	Original *	17-4.76.10	Original *
17-4.69.2	Original	17-4.73.2	Original *	17-5.1.1	6th
17-4.69.3	Original	17-4.73.3	Original *	17-5.1.2	6th
17-4.69.4	Original	17-4.73.4	Original *	17-5.1.3	6th
17-4.69.5	Original	17-4.73.5	Original *	17-5.1.4	6th
17-4.69.6	Original	17-4.73.6	Original *	17-5.1.5	Original
17-4.69.7	Original	17-4.73.7	Original *	17-5.1.6	8th
17-4.69.8	Original	17-4.73.8	Original *	17-5.1.7	7th
17-4.69.9	Original	17-4.73.9	Original *	17-5.1.8	4th
17-4.69.10	Original	17-4.73.10	Original *	17-5.1.9	7th
17-4.70.1	Original	17-4.74.1	Original *	17-5.1.10	7th
17-4.70.2	Original	17-4.74.2	Original *	17-5.1.11	8th
17-4.70.3	Original	17-4.74.3	Original *	17-5.1.12	2nd
17-4.70.4	Original	17-4.74.4	Original *	17-5.1.13	7th
17-4.70.5	Original	17-4.74.5	Original *	17-5.1.14	7th
17-4.70.6	Original	17-4.74.6	Original *	17-5.1.15	7th
17-4.70.7	Original	17-4.74.7	Original *	17-5.1.15.1	4th
17-4.70.8	Original	17-4.74.8	Original *	17-5.1.15.2	4th
17-4.70.9	Original	17-4.74.9	Original *	17-5.1.16	1st

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17-5.1.17	6th	17-5.4.1	6th	17-5.6.2	3rd
17-5.2.1	6th	17-5.4.2	6th	17-5.6.3	3rd
17-5.2.2	6th	17-5.4.3	6th	17-5.6.4	3rd
17-5.2.3	6th	17-5.4.4	6th	17-5.6.5	1st
17-5.2.4	6th	17-5.4.5	Original	17-5.6.6	3rd
17-5.2.5	Original	17-5.4.6	8th	17-5.6.7	3rd
17-5.2.6	8th	17-5.4.7	7th	17-5.6.8	3rd
17-5.2.7	7th	17-5.4.8	5th	17-5.6.9	3rd
17-5.2.8	6th	17-5.4.9	7th	17-5.6.10	3rd
17-5.2.9	7th	17-5.4.10	7th	17-5.6.11	3rd
17-5.2.10	7th	17-5.4.11	8th	17-5.6.12	2nd
17-5.2.11	8th	17-5.4.12	2nd	17-5.6.13	3rd
17-5.2.12	2nd	17-5.4.13	7th	17-5.6.14	3rd
17-5.2.13	7th	17-5.4.14	7th	17-5.6.15	3rd
17-5.2.14	7th	17-5.4.15	7th	17-5.6.16	2nd
17-5.2.15	7th	17-5.4.15.1	4th	17-5.6.17	3rd
17-5.2.15.1	4th	17-5.4.15.2	4th	17-5.7.1	5th
17-5.2.15.2	4th	17-5.4.16	1st	17-5.7.2	5th
17-5.2.16	1st	17-5.4.17	6th	17-5.7.3	5th
17-5.2.17	6th	17-5.5.1	6th	17-5.7.4	5th
17-5.3.1	6th	17-5.5.2	6th	17-5.7.5	Original
17-5.3.2	6th	17-5.5.3	6th	17-5.7.6	7th
17-5.3.3	6th	17-5.5.4	6th	17-5.7.7	6th
17-5.3.4	6th	17-5.5.5	Original	17-5.7.8	5th
17-5.3.5	Original	17-5.5.6	8th	17-5.7.9	6th
17-5.3.6	8th	17-5.5.7	7th	17-5.7.10	6th
17-5.3.7	7th	17-5.5.8	6th	17-5.7.11	7th
17-5.3.8	5th	17-5.5.9	7th	17-5.7.12	2nd
17-5.3.9	7th	17-5.5.10	7th	17-5.7.13	6th
17-5.3.10	7th	17-5.5.11	8th	17-5.7.14	6th
17-5.3.11	8th	17-5.5.12	2nd	17-5.7.15	6th
17-5.3.12	2nd	17-5.5.13	7th	17-5.7.15.1	3rd
17-5.3.13	7th	17-5.5.14	7th	17-5.7.15.2	3rd
17-5.3.14	7th	17-5.5.15	7th	17-5.7.16	1st
17-5.3.15	7th	17-5.5.15.1	4th	17-5.7.17	5th
17-5.3.15.1	4th	17-5.5.15.2	4th	17-5.8.1	6th
17-5.3.15.2	4th	17-5.5.16	1st	17-5.8.2	6th
17-5.3.16	1st	17-5.5.17	6th	17-5.8.3	6th
17-5.3.17	6th	17-5.6.1	3rd	17-5.8.4	6th

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17-5.8.5	Original	17-5.15.1	Original	17-5.18.17	2nd
17-5.8.6	8th	17-5.16.1	Original	17-5.19.1	2nd
17-5.8.7	7th	17-5.17.1	1st	17-5.19.2	2nd
17-5.8.8	5th	17-5.17.2	1st	17-5.19.3	2nd
17-5.8.9	7th	17-5.17.3	1st	17-5.19.4	2nd
17-5.8.10	7th	17-5.17.4	1st	17-5.19.5	1st
17-5.8.11	8th	17-5.17.5	1st	17-5.19.6	4th
17-5.8.12	2nd	17-5.17.6	5th	17-5.19.7	3rd
17-5.8.13	7th	17-5.17.7	4th	17-5.19.8	3rd
17-5.8.14	7th	17-5.17.8	4th	17-5.19.9	3rd
17-5.8.15	7th	17-5.17.9	4th	17-5.19.10	3rd
17-5.8.15.1	4th	17-5.17.10	4th	17-5.19.11	4th
17-5.8.15.2	4th	17-5.17.11	5th	17-5.19.12	2nd
17-5.8.16	1st	17-5.17.12	2nd	17-5.19.13	3rd
17-5.8.17	6th	17-5.17.13	4th	17-5.19.14	2nd
17-5.9.1	6th	17-5.17.14	4th	17-5.19.15	2nd
17-5.9.2	6th	17-5.17.15	4th	17-5.19.15.1	1st
17-5.9.3	6th	17-5.17.15.1	2nd	17-5.19.15.2	1st
17-5.9.4	6th	17-5.17.15.2	2nd	17-5.19.16	2nd
17-5.9.5	Original	17-5.17.16	2nd	17-5.19.17	1st
17-5.9.6	8th	17-5.17.17	3rd	17-5.20.1	2nd
17-5.9.7	7th	17-5.18.1	2nd	17-5.20.2	2nd
17-5.9.8	7th	17-5.18.2	2nd	17-5.20.3	2nd
17-5.9.9	7th	17-5.18.3	2nd	17-5.20.4	2nd
17-5.9.10	7th	17-5.18.4	2nd	17-5.20.5	1st
17-5.9.11	8th	17-5.18.5	1st	17-5.20.6	4th
17-5.9.12	2nd	17-5.18.6	4th	17-5.20.7	3rd
17-5.9.13	7th	17-5.18.7	3rd	17-5.20.8	3rd
17-5.9.14	7th	17-5.18.8	2nd	17-5.20.9	3rd
17-5.9.15	7th	17-5.18.9	3rd	17-5.20.10	3rd
17-5.9.15.1	4th	17-5.18.10	3rd	17-5.20.11	4th
17-5.9.15.2	4th	17-5.18.11	4th	17-5.20.12	2nd
17-5.9.16	1st	17-5.18.12	2nd	17-5.20.13	3rd
17-5.9.17	6th	17-5.18.13	3rd	17-5.20.14	2nd
17-5.10.1	Original	17-5.18.14	3rd	17-5.20.15	2nd
17-5.11.1	Original	17-5.18.15	3rd	17-5.20.15.1	1st
17-5.12.1	Original	17-5.18.15.1	1st	17-5.20.15.2	1st
17-5.13.1	Original	17-5.18.15.2	1st	17-5.20.16	2nd
17-5.14.1	Original	17-5.18.16	2nd	17-5.20.17	1st

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17-5.21.1	3rd	17-5.23.2	3rd	17-5.25.3	3rd
17-5.21.2	3rd	17-5.23.3	3rd	17-5.25.4	3rd
17-5.21.3	3rd	17-5.23.4	3rd	17-5.25.5	1st
17-5.21.4	3rd	17-5.23.5	1st	17-5.25.6	5th
17-5.21.5	1st	17-5.23.6	5th	17-5.25.7	4th
17-5.21.6	5th	17-5.23.7	4th	17-5.25.8	3rd
17-5.21.7	4th	17-5.23.8	4th	17-5.25.9	4th
17-5.21.8	4th	17-5.23.9	4th	17-5.25.10	4th
17-5.21.9	4th	17-5.23.10	4th	17-5.25.11	5th
17-5.21.10	4th	17-5.23.11	5th	17-5.25.12	2nd
17-5.21.11	5th	17-5.23.12	2nd	17-5.25.13	4th
17-5.21.12	2nd	17-5.23.13	4th	17-5.25.14	4th
17-5.21.13	4th	17-5.23.14	4th	17-5.25.15	4th
17-5.21.14	4th	17-5.23.15	4th	17-5.25.15.1	2nd
17-5.21.15	4th	17-5.23.15.1	2nd	17-5.25.15.2	2nd
17-5.21.15.1	2nd	17-5.23.15.2	2nd	17-5.25.16	2nd
17-5.21.15.2	2nd	17-5.23.16	2nd	17-5.25.17	3rd
17-5.21.16	2nd	17-5.23.17	3rd	17-5.26.1	Original
17-5.21.17	3rd	17-5.24.1	6th *	17-5.26.2	Original
17-5.22.1	3rd	17-5.24.2	6th *	17-5.26.3	Original
17-5.22.2	3rd	17-5.24.3	6th *	17-5.26.4	Original
17-5.22.3	3rd	17-5.24.4	6th *	17-5.26.5	Original
17-5.22.4	3rd	17-5.24.5	1st	17-5.26.6	7th
17-5.22.5	1st	17-5.24.6	7th *	17-5.26.7	6th
17-5.22.6	5th	17-5.24.7	7th *	17-5.26.8	5th
17-5.22.7	4th	17-5.24.8	7th *	17-5.26.9	6th
17-5.22.8	4th	17-5.24.9	7th *	17-5.26.10	6th
17-5.22.9	4th	17-5.24.10	7th *	17-5.26.11	7th
17-5.22.10	4th	17-5.24.11	7th *	17-5.26.12	1st
17-5.22.11	5th	17-5.24.12	2nd	17-5.26.13	6th
17-5.22.12	2nd	17-5.24.13	7th *	17-5.26.14	6th
17-5.22.13	4th	17-5.24.14	7th *	17-5.26.15	6th
17-5.22.14	4th	17-5.24.15	7th *	17-5.26.15.1	4th
17-5.22.15	4th	17-5.24.15.1	5th *	17-5.26.15.2	4th
17-5.22.15.1	2nd	17-5.24.15.2	5th *	17-5.26.16	2nd
17-5.22.15.2	2nd	17-5.24.16	2nd	17-5.26.17	5th
17-5.22.16	2nd	17-5.24.17	6th *	17-5.27.1	3rd
17-5.22.17	3rd	17-5.25.1	3rd	17-5.27.2	3rd
17-5.23.1	3rd	17-5.25.2	3rd	17-5.27.3	3rd

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17-5.27.5	1st	17-5.29.6	4th	17-5.31.7	3rd
17-5.27.6	5th	17-5.29.7	3rd	17-5.31.8	3rd
17-5.27.7	4th	17-5.29.8	3rd	17-5.31.9	3rd
17-5.27.8	4th	17-5.29.9	3rd	17-5.31.10	3rd
17-5.27.9	4th	17-5.29.10	3rd	17-5.31.11	4th
17-5.27.10	4th	17-5.29.11	4th	17-5.31.12	3rd
17-5.27.11	5th	17-5.29.12	2nd	17-5.31.13	3rd
17-5.27.12	4th	17-5.29.13	3rd	17-5.31.14	2nd
17-5.27.13	4th	17-5.29.14	3rd	17-5.31.15	2nd
17-5.27.14	4th	17-5.29.15	3rd	17-5.31.15.1	1st
17-5.27.15	4th	17-5.29.15.1	2nd	17-5.31.15.2	1st
17-5.27.15.1	2nd	17-5.29.15.2	2nd	17-5.31.16	1st
17-5.27.15.2	2nd	17-5.29.16	1st	17-5.31.17	1st
17-5.27.16	2nd	17-5.29.17	2nd	17-5.32.1	1st *
17-5.27.17	3rd	17-5.30.1	1st	17-5.32.2	1st *
17-5.28.1	3rd	17-5.30.2	1st	17-5.32.3	1st *
17-5.28.2	3rd	17-5.30.3	1st	17-5.32.4	1st *
17-5.28.3	3rd	17-5.30.4	1st	17-5.32.5	1st *
17-5.28.4	3rd	17-5.30.5	1st	17-5.32.6	4th *
17-5.28.5	1st	17-5.30.6	3rd	17-5.32.7	3rd *
17-5.28.6	5th	17-5.30.7	2nd	17-5.32.8	2nd *
17-5.28.7	4th	17-5.30.8	2nd	17-5.32.9	3rd *
17-5.28.8	4th	17-5.30.9	2nd	17-5.32.10	2nd *
17-5.28.9	4th	17-5.30.10	2nd	17-5.32.11	3rd *
17-5.28.10	4th	17-5.30.11	3rd	17-5.32.12	2nd *
17-5.28.11	5th	17-5.30.12	2nd	17-5.32.13	4th *
17-5.28.12	4th	17-5.30.13	2nd	17-5.32.14	2nd *
17-5.28.13	4th	17-5.30.14	2nd	17-5.32.15	2nd *
17-5.28.14	4th	17-5.30.15	2nd	17-5.32.15.1	1st *
17-5.28.15	4th	17-5.30.15.1	1st	17-5.32.15.2	1st *
17-5.28.15.1	2nd	17-5.30.15.2	1st	17-5.32.16	1st *
17-5.28.15.2	2nd	17-5.30.16	1st	17-5.32.17	1st *
17-5.28.16	2nd	17-5.30.17	1st	17-5.33.1	1st *
17-5.28.17	3rd	17-5.31.1	1st	17-5.33.2	1st *
17-5.29.1	2nd	17-5.31.2	1st	17-5.33.3	1st *
17-5.29.2	2nd	17-5.31.3	1st	17-5.33.4	1st *
17-5.29.3	2nd	17-5.31.4	1st	17-5.33.5	1st *
17-5.29.4	2nd	17-5.31.5	1st	17-5.33.6	4th *

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17-5.33.7	3rd *	17-5.35.8	2nd *	17-5.40.6	4th *
17-5.33.8	2nd *	17-5.35.9	3rd *	17-5.40.7	4th *
17-5.33.9	3rd *	17-5.35.10	3rd *	17-5.40.8	Original
17-5.33.10	2nd *	17-5.35.11	3rd *	17-5.40.9	4th *
17-5.33.11	3rd *	17-5.35.12	Original	17-5.40.10	4th *
17-5.33.12	2nd *	17-5.35.13	3rd *	17-5.40.11	Original
17-5.33.13	4th *	17-5.35.14	3rd *	17-5.40.12	4th *
17-5.33.14	2nd *	17-5.35.15	3rd *	17-5.40.13	4th *
17-5.33.15	2nd *	17-5.35.16	3rd *	17-5.40.14	Original
17-5.33.15.1	1st *	17-5.35.17	3rd *	17-5.40.15	Original
17-5.33.15.2	1st *	17-5.35.18	1st	17-5.40.16	Original
17-5.33.16	1st *	17-5.35.19	3rd *	17-5.40.17	Original
17-5.33.17	1st *	17-5.36.1	Original	17-5.40.18	1st
17-5.34.1	1st	17-5.37.1	Original	17-5.40.19	Original
17-5.34.2	1st	17-5.38.1	Original	17-5.41.1	1st *
17-5.34.3	1st	17-5.39.1	1st	17-5.41.2	1st *
17-5.34.4	1st	17-5.39.2	1st	17-5.41.3	1st *
17-5.34.5	1st	17-5.39.3	1st	17-5.41.4	1st *
17-5.34.6	3rd	17-5.39.4	1st	17-5.41.5	1st *
17-5.34.7	2nd	17-5.39.5	1st	17-5.41.6	1st *
17-5.34.8	2nd	17-5.39.6	1st	17-5.41.7	1st *
17-5.34.9	2nd	17-5.39.7	1st	17-5.41.8	1st *
17-5.34.10	2nd	17-5.39.8	1st	17-5.41.9	1st *
17-5.34.11	3rd	17-5.39.9	1st	17-5.41.10	1st *
17-5.34.12	2nd	17-5.39.10	1st	17-5.41.11	1st *
17-5.34.13	2nd	17-5.39.11	1st	17-5.41.12	1st *
17-5.34.14	2nd	17-5.39.12	1st	17-5.41.13	1st *
17-5.34.15	2nd	17-5.39.13	1st	17-5.41.14	1st *
17-5.34.15.1	1st	17-5.39.14	1st	17-5.41.15	1st *
17-5.34.15.2	1st	17-5.39.15	1st	17-5.41.16	1st *
17-5.34.16	1st	17-5.39.16	1st	17-5.41.17	1st *
17-5.34.17	1st	17-5.39.17	1st	17-5.41.18	1st *
17-5.35.1	3rd *	17-5.39.18	2nd	17-5.41.19	1st *
17-5.35.2	3rd *	17-5.39.19	1st	17-5.42.1	1st *
17-5.35.3	3rd *	17-5.40.1	Original	17-5.42.2	1st *
17-5.35.4	3rd *	17-5.40.2	Original	17-5.42.3	1st *
17-5.35.5	Original	17-5.40.3	Original	17-5.42.4	1st *
17-5.35.6	3rd *	17-5.40.4	Original	17-5.42.5	1st *
17-5.35.7	3rd *	17-5.40.5	Original	17-5.42.6	1st *

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17-5.42.7	1st *	17-5.44.8	1st *	17-5.48.7	3rd *
17-5.42.8	1st *	17-5.44.9	1st *	17-5.48.8	1st *
17-5.42.9	1st *	17-5.44.10	1st *	17-5.48.9	3rd *
17-5.42.10	1st *	17-5.44.11	1st *	17-5.48.10	3rd *
17-5.42.11	1st *	17-5.44.12	1st *	17-5.48.11	3rd *
17-5.42.12	1st *	17-5.44.13	1st *	17-5.48.12	Original
17-5.42.13	1st *	17-5.44.14	1st *	17-5.48.13	3rd *
17-5.42.14	1st *	17-5.44.15	1st *	17-5.48.14	3rd *
17-5.42.15	1st *	17-5.44.16	1st *	17-5.48.15	3rd *
17-5.42.16	1st *	17-5.44.17	1st *	17-5.48.16	3rd *
17-5.42.17	1st *	17-5.44.18	1st *	17-5.48.17	3rd *
17-5.42.18	1st *	17-5.44.19	1st *	17-5.48.18	Original
17-5.42.19	1st *	17-5.45.1	Original	17-5.48.19	3rd *
17-5.43.1	1st	17-5.46.1	2nd *	17-5.49.1	Original
17-5.43.2	1st	17-5.46.2	2nd *	17-5.50.1	Original
17-5.43.3	1st	17-5.46.3	2nd *	17-5.51.1	Original
17-5.43.4	1st	17-5.46.4	2nd *	17-5.52.1	Original
17-5.43.5	1st	17-5.46.5	Original	17-5.53.1	Original
17-5.43.6	1st	17-5.46.6	2nd *	17-5.54.1	Original
17-5.43.7	1st	17-5.46.7	2nd *	17-5.55.1	Original
17-5.43.8	1st	17-5.46.8	2nd *	17-5.56.1	2nd *
17-5.43.9	1st	17-5.46.9	2nd *	17-5.56.2	2nd *
17-5.43.10	1st	17-5.46.10	2nd *	17-5.56.3	2nd *
17-5.43.11	1st	17-5.46.11	2nd *	17-5.56.4	2nd *
17-5.43.12	1st	17-5.46.12	Original	17-5.56.5	Original
17-5.43.13	1st	17-5.46.13	2nd *	17-5.56.6	2nd *
17-5.43.14	1st	17-5.46.14	2nd *	17-5.56.7	2nd *
17-5.43.15	1st	17-5.46.15	2nd *	17-5.56.8	2nd *
17-5.43.16	1st	17-5.46.16	2nd *	17-5.56.9	2nd *
17-5.43.17	1st	17-5.46.17	2nd *	17-5.56.10	2nd *
17-5.43.18	1st	17-5.46.18	Original	17-5.56.11	2nd *
17-5.43.19	1st	17-5.46.19	2nd *	17-5.56.12	Original
17-5.44.1	1st *	17-5.47.1	Original	17-5.56.13	2nd *
17-5.44.2	1st *	17-5.48.1	3rd *	17-5.56.14	2nd *
17-5.44.3	1st *	17-5.48.2	3rd *	17-5.56.15	2nd *
17-5.44.4	1st *	17-5.48.3	3rd *	17-5.56.16	2nd *
17-5.44.5	1st *	17-5.48.4	3rd *	17-5.56.17	2nd *
17-5.44.6	1st *	17-5.48.5	Original	17-5.56.18	Original
17-5.44.7	1st *	17-5.48.6	3rd *	17-5.56.19	2nd *

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17-5.57.1	1st *	17-5.60.1	1st *	17-5.62.2	1st *
17-5.57.2	1st *	17-5.60.2	1st *	17-5.62.3	1st *
17-5.57.3	1st *	17-5.60.3	1st *	17-5.62.4	1st *
17-5.57.4	1st *	17-5.60.4	1st *	17-5.62.5	Original
17-5.57.5	1st *	17-5.60.5	Original	17-5.62.6	1st *
17-5.57.6	1st *	17-5.60.6	1st *	17-5.62.7	1st *
17-5.57.7	1st *	17-5.60.7	1st *	17-5.62.8	1st *
17-5.57.8	1st *	17-5.60.8	1st *	17-5.62.9	1st *
17-5.57.9	1st *	17-5.60.9	1st *	17-5.62.10	1st *
17-5.57.10	1st *	17-5.60.10	1st *	17-5.62.11	1st *
17-5.57.11	1st *	17-5.60.11	1st *	17-5.62.12	Original
17-5.57.12	1st *	17-5.60.12	Original	17-5.62.13	1st *
17-5.57.13	1st *	17-5.60.13	1st *	17-5.62.14	1st *
17-5.57.14	1st *	17-5.60.14	1st *	17-5.62.15	1st *
17-5.57.15	1st *	17-5.60.15	1st *	17-5.62.16	1st *
17-5.57.16	1st *	17-5.60.16	1st *	17-5.62.17	1st *
17-5.57.17	1st *	17-5.60.17	1st *	17-5.62.18	Original
17-5.57.18	1st *	17-5.60.18	Original	17-5.62.19	1st *
17-5.57.19	1st *	17-5.60.19	1st *	17-5.63.1	Original
17-5.58.1	Original	17-5.61.1	Original	17-5.64.1	Original
17-5.59.1	Original	17-5.61.2	Original	17-5.65.1	Original
17-5.59.2	Original	17-5.61.3	Original	17-5.65.2	Original
17-5.59.3	Original	17-5.61.4	Original	17-5.65.3	Original
17-5.59.4	Original	17-5.61.5	Original	17-5.65.4	Original
17-5.59.5	Original	17-5.61.6	1st *	17-5.65.5	Original
17-5.59.6	Original	17-5.61.7	1st *	17-5.65.6	1st *
17-5.59.7	Original	17-5.61.8	Original	17-5.65.7	1st *
17-5.59.8	Original	17-5.61.9	1st *	17-5.65.8	1st *
17-5.59.9	Original	17-5.61.10	1st *	17-5.65.9	1st *
17-5.59.10	Original	17-5.61.11	1st *	17-5.65.10	1st *
17-5.59.11	Original	17-5.61.12	Original	17-5.65.11	1st *
17-5.59.12	Original	17-5.61.13	1st *	17-5.65.12	Original
17-5.59.13	Original	17-5.61.14	1st *	17-5.65.13	Original
17-5.59.14	Original	17-5.61.15	1st *	17-5.65.14	Original
17-5.59.15	Original	17-5.61.16	1st *	17-5.65.15	Original
17-5.59.16	Original	17-5.61.17	1st *	17-5.65.16	Original
17-5.59.17	Original	17-5.61.18	Original	17-5.65.17	Original
17-5.59.18	Original	17-5.61.19	Original	17-5.65.18	Original
17-5.59.19	Original	17-5.62.1	1st *	17-5.65.19	Original

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17-5.66.1	Original	17-5.70.18	1st *	17-5.74.6	Original *	
17-5.67.1	Original	17-5.70.19	1st *	17-5.74.7	Original *	
17-5.68.1	Original	17-5.70.20	Original	17-5.74.8	Original *	
17-5.69.1	Original	17-5.70.21	Original	17-5.74.9	Original *	
17-5.69.2	Original	17-5.70.22	Original	17-5.74.10	Original *	
17-5.69.3	Original	17-5.70.23	Original	17-5.74.11	Original *	
17-5.69.4	Original	17-5.70.24	Original	17-5.74.12	Original *	
17-5.69.5	Original	17-5.70.25	Original	17-5.74.13	Original *	
17-5.69.6	1st *	17-5.71.1	Original	17-5.74.14	Original *	
17-5.69.7	1st *	17-5.71.2	Original	17-5.74.15	Original *	
17-5.69.8	1st *	17-5.71.3	Original	17-5.74.16	Original *	
17-5.69.9	1st *	17-5.71.4	Original	17-5.74.17	Original *	
17-5.69.10	1st *	17-5.71.5	Original	17-5.74.18	Original *	
17-5.69.11	1st *	17-5.71.6	1st *	17-5.74.19	Original *	
17-5.69.12	1st *	17-5.71.7	1st *	17-5.75.1	Original *	
17-5.69.13	1st *	17-5.71.8	1st *	17-5.76.1	Original *	
17-5.69.14	Original	17-5.71.9	1st *	17-5.76.2	Original *	
17-5.69.15	Original	17-5.71.10	1st *	17-5.76.3	Original *	
17-5.69.16	Original	17-5.71.11	1st *	17-5.76.4	Original *	
17-5.69.17	Original	17-5.71.12	Original	17-5.76.5	Original *	
17-5.69.18	Original	17-5.71.13	1st *	17-6.1.1	5th	
17-5.69.19	Original	17-5.71.14	Original	17-6.2.1	5th	
17-5.70.1	Original	17-5.71.15	Original	17-6.3.1	5th	
17-5.70.2	Original	17-5.71.16	Original	17-6.4.1	5th	
17-5.70.3	Original	17-5.71.17	Original	17-6.5.1	2nd	
17-5.70.4	Original	17-5.71.18	Original	17-6.6.1	3rd	
17-5.70.5	Original	17-5.71.19	Original	17-6.7.1	5th	
17-5.70.6	1st *	17-5.72.1	Original *	17-6.8.1	5th	
17-5.70.7	1st *	17-5.72.2	Original *	17-6.9.1	5th	
17-5.70.8	1st *	17-5.72.3	Original *	17-6.10.1	Original	
17-5.70.9	1st *	17-5.72.4	Original *	17-6.11.1	Original	
17-5.70.10	1st *	17-5.72.5	Original *	17-6.12.1	Original	
17-5.70.11	1st *	17-5.72.6	Original *	17-6.13.1	Original	
17-5.70.12	1st *	17-5.73.1	Original *	17-6.14.1	Original	
17-5.70.13	1st *	17-5.74.1	Original *	17-6.15.1	Original	
17-5.70.14	1st *	17-5.74.2	Original *	17-6.16.1	Original	
17-5.70.15	1st *	17-5.74.3	Original *	17-6.17.1	5th *	
17-5.70.16	1st *	17-5.74.4	Original *	17-6.18.1	1st	
17-5.70.17	1st *	17-5.74.5	Original *	17-6.19.1	1st	

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17-6.20.1	1st	17-6.49.1	1st *	17-7.12.1	Original
17-6.21.1	Original	17-6.50.1	Original	17-7.13.1	Original
17-6.22.1	2nd	17-6.51.1	2nd *	17-7.14.1	Original
17-6.23.1	5th *	17-6.52.1	Original	17-7.15.1	Original
17-6.24.1	1st	17-6.53.1	3rd *	17-7.16.1	Original
17-6.24.2	1st	17-6.54.1	1st	17-7.17.1	Original
17-6.24.3	1st	17-6.55.1	1st *	17-7.18.1	1st
17-6.25.1	1st *	17-6.56.1	Original	17-7.19.1	1st
17-6.26.1	4th *	17-6.57.1	Original	17-7.20.1	1st
17-6.27.1	1st	17-6.58.1	Original	17-7.21.1	Original
17-6.28.1	Original	17-6.59.1	Original	17-7.22.1	Original
17-6.28.2	Original	17-6.60.1	Original	17-7.23.1	Original
17-6.29.1	Original	17-6.61.1	Original	17-7.24.1	1st
17-6.30.1	1st	17-6.62.1	Original	17-7.25.1	Original
17-6.30.2	Original	17-6.63.1	Original	17-7.26.1	Original
17-6.31.1	3rd *	17-6.64.1	Original	17-7.27.1	2nd
17-6.31.2	3rd *	17-6.65.1	Original	17-7.28.1	2nd
17-6.32.1	Original	17-6.66.1	Original	17-7.29.1	Original
17-6.32.2	Original	17-6.67.1	Original	17-7.30.1	Original
17-6.33.1	1st	17-6.68.1	Original	17-7.31.1	Original
17-6.34.1	Original	17-6.69.1	1st *	17-7.32.1	1st
17-6.35.1	1st	17-6.70.1	Original	17-7.33.1	1st
17-6.36.1	Original	17-6.71.1	Original	17-7.34.1	Original
17-6.37.1	Original	17-6.72.1	Original *	17-7.35.1	Original
17-6.38.1	4th *	17-6.73.1	Original *	17-7.36.1	Original
17-6.38.2	4th *	17-6.74.1	Original *	17-7.37.1	Original
17-6.38.3	4th *	17-6.75.1	Original *	17-7.38.1	Original
17-6.39.1	Original	17-6.76.1	Original *	17-7.39.1	2nd
17-6.40.1	Original	17-7.1.1	Original	17-7.40.1	Original
17-6.40.2	Original	17-7.2.1	Original	17-7.41.1	Original
17-6.40.3	Original	17-7.3.1	Original	17-7.42.1	Original
17-6.41.1	Original	17-7.4.1	Original	17-7.43.1	Original
17-6.42.1	Original	17-7.5.1	Original	17-7.44.1	Original
17-6.43.1	Original	17-7.6.1	1st	17-7.45.1	Original
17-6.44.1	1st	17-7.7.1	Original	17-7.46.1	Original
17-6.45.1	Original	17-7.8.1	Original	17-7.47.1	Original
17-6.46.1	1st *	17-7.9.1	Original	17-7.48.1	Original
17-6.47.1	Original	17-7.10.1	Original	17-7.49.1	Original
17-6.48.1	Original	17-7.11.1	Original	17-7.50.1	Original

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17-7.51.1	Original	17-8.14.1	Original	17-8.42.1	Original	
17-7.52.1	Original	17-8.15.1	Original	17-8.43.1	Original	
17-7.53.1	Original	17-8.16.1	Original	17-8.44.1	Original	
17-7.54.1	Original	17-8.17.1	Original	17-8.45.1	Original	
17-7.55.1	Original	17-8.18.1	1st	17-8.46.1	Original	
17-7.56.1	Original	17-8.19.1	1st	17-8.47.1	Original	
17-7.57.1	Original	17-8.20.1	1st	17-8.48.1	Original	
17-7.58.1	Original	17-8.21.1	Original	17-8.49.1	Original	
17-7.59.1	Original	17-8.22.1	Original	17-8.50.1	Original	
17-7.60.1	Original	17-8.23.1	Original	17-8.51.1	Original	
17-7.61.1	Original	17-8.24.1	1st	17-8.52.1	Original	
17-7.62.1	Original	17-8.25.1	Original	17-8.53.1	Original	
17-7.63.1	1st *	17-8.26.1	Original	17-8.54.1	Original	
17-7.64.1	1st *	17-8.27.1	3rd	17-8.55.1	Original	
17-7.65.1	Original	17-8.27.2	3rd	17-8.56.1	Original	
17-7.66.1	1st *	17-8.27.3	1st	17-8.57.1	Original Original	
17-7.67.1	1st *	17-8.28.1	3rd	17-8.58.1		
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	17.1.2 End User Access Service	{1}	
	17.1.3 Federal Universal Service Charge (FUSC)	{1}	
	17.1.4 ISDN Line Ports	{1}	
	17.1.5 DS1 Line Port	{1}	
{1}	Refer to Issuing Carrier Rate Sheets listed below:		
	Arrowhead Communications Corporation	17-1.1.1	
	Eagle Valley Telephone Company	17-1.2.1	
	East Otter Tail Telephone Company	17-1.3.1	
	Felton Telephone Company, Inc.	17-1.4.1	
	Guadalupe Valley Telephone Co-op, Inc.	17-1.5.1	
	Reserved for Future Use	17-1.6.1	(T)
	Osakis Telephone Company	17-1.7.1	
	Peoples Telephone Company	17-1.8.1	
	Twin Valley-Ulen Telephone Company, Inc.	17-1.9.1	
	Callaway Telephone Company	17-1.10.1	
	Clements Telephone Company The Hama Telephone Company	17-1.11.1	
	The Home Telephone Company	17-1.12.1	
	Loretel Systems, Inc.	17-1.13.1 17-1.14.1	
	Melrose Telephone Company Midwest Telephone Company	17-1.14.1 17-1.15.1	
	Redwood County Telephone Company	17-1.13.1 17-1.16.1	
	Redwood County Telephone Company	1/-1.10.1	

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	ISDN Line Ports, and DS1 Port (Cont'd)		
{1}	Refer to Issuing Carrier Rate Sheets listed below (Cont'd):		
	La Harpe Telephone Company, Inc.	17-1.17.1	
	Reserved for Future Use	17-1.18.1	(T)
	Reserved for Future Use	17-1.19.1	(T)
	Reserved for Future Use	17-1.20.1	(T)
	Dobson Telephone Company	17-1.21.1	
	McLoud Telephone Company	17-1.22.1	
	UBTA-UBET Communications	17-1.23.1	
	Great Plains Communications LLC	17-1.24.1	
	Brazos Telephone Cooperative, Inc.	17-1.25.1	
	Panhandle Telephone Cooperative, Inc.	17-1.26.1	
	Nemont Telephone Cooperative ND/Missouri Valley Communications	17-1.27.1	
	Nemont Telephone Cooperative MT	17-1.28.1	
	Cambridge Telephone Company, Inc. – ID	17-1.29.1	
	Mid-Rivers Telephone Cooperative, Inc.	17-1.30.1	
	Rural Telephone Service Co., Inc. dba Nex-Tech	17-1.31.1	
	United Utilities, Inc.	17-1.32.1	
	United-KUC, Inc.	17-1.33.1	
	Accipiter Communications, Inc. D/B/A Zona Communications	17-1.34.1	
	Canby Telephone Association	17-1.35.1	
	Millry Telephone Company, Inc.	17-1.36.1	
	Moapa Valley Telephone Company	17-1.37.1	
	Pioneer Telephone Cooperative	17-1.38.1	
	Project Telephone Company	17-1.39.1	
	South Central Rural Telephone Cooperative	17-1.40.1	
	All West Communications, Inc. – UT	17-1.41.1	(N)
	All West Communications, Inc. – WY	17-1.42.1	
	Chugwater Telephone Company	17-1.43.1	
	Citizens Telephone Company of Higginsville, Missouri	17-1.44.1	
	Delhi Telephone Company	17-1.45.1	
	Five Area Telephone Cooperative, Inc.	17-1.46.1	
	Hot Springs Telephone Company	17-1.47.1	
	Interbel Telephone Cooperative, Inc.	17-1.48.1	
	North Texas Telephone Company	17-1.49.1	
	Oklatel Communications, LLC	17-1.50.1	
	Phillips County Telephone Company d/b/a PC Telcom	17-1.51.1	
	Saddleback Communications Company	17-1.52.1	
	Santa Rosa Telephone Cooperative Inc. – OK	17-1-53 1	

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	17.1	Common Line Access Service, Federal Universal Service Charge ISDN Line Ports, and DS1 Port (Cont'd)	
	{1}	Refer to Issuing Carrier Rate Sheets listed below (Cont'd):	
		Totelcom Communications, LLC	17-1.55.1
		West Plains Telecommunications, Inc.	17-1.56.1
		Yukon Telephone Company	17-1.57.1
		Southwest Oklahoma Telephone Company	17-1.58.1
		3 Rivers Telephone Cooperative, Inc.	17-1.59.1
		Granite State Telephone Company	17-1.60.1
		Scio Mutual Telephone Company	17-1.61.1
		South Central Utah Telephone Association, Inc.	17-1.62.1
		Blue Earth Valley Telephone Company	17-1.63.1
		Cannon Valley Telecom, Inc.	17-1.64.1
		Cordova Telephone Cooperative	17-1.65.1
		Easton Telephone Company	17-1.66.1
		Eckles Telephone Company	17-1.67.1
		Hager Telecom Incorporated	17-1.68.1
		Ketchikan Public Utilities d/b/a KPU Telecommunications	17-1.69.1
		Laurel Highland Telephone Company	17-1.70.1
		Wamego Telephone Company, Inc.	17-1.71.1
		Emery Telephone	17-1.72.1 (N)
		Moundridge Telephone Company, Inc.	17-1.73.1
		Ringgold Telephone Company	17-1.74.1
		Steelville Telephone Exchange, Inc.	17-1.75.1

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{2}	Refer to Issuing Carrier Rate Sheets listed below:		
	Arrowhead Communications Corporation Eagle Valley Telephone Company East Otter Tail Telephone Company Felton Telephone Company, Inc. Guadalupe Valley Telephone Co-op, Inc. Reserved for Future Use Osakis Telephone Company Peoples Telephone Company Twin Valley-Ulen Telephone Company, Inc. Callaway Telephone Company Clements Telephone Company The Home Telephone Company Loretel Systems, Inc. Melrose Telephone Company Midwest Telephone Company Redwood County Telephone Company Reserved for Future Use Company McLoud Telephone Company McLoud Telephone Company UBTA-UBET Communications Great Plains Communications LLC Brazos Telephone Cooperative, Inc. Panhandle Telephone Cooperative, Inc. Nemont Telephone Cooperative MT Cambridge Telephone Cooperative, Inc. Rural Telephone Service Co., Inc. dba Nex-Tech United Utilities, Inc. United-KUC, Inc. Accipiter Communications, Inc. D/B/A Zona Communications Transmittal No. 27	17-2.1.1 17-2.2.1 17-2.3.1 17-2.4.1 17-2.5.1 17-2.6.1 17-2.7.1 17-2.8.1 17-2.9.1 17-2.10.1 17-2.11.1 17-2.12.1 17-2.13.1 17-2.14.1 17-2.15.1 17-2.16.1 17-2.17.1 17-2.18.1 17-2.19.1 17-2.20.1 17-2.21.1 17-2.23.1 17-2.24.1 17-2.25.1 17-2.24.1 17-2.25.1 17-2.26.1 17-2.27.1 17-2.28.1 17-2.29.1 17-2.30.1 17-2.31.1 17-2.31.1 17-2.33.1 17-2.33.1	(T) (T) (T)

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{2}	Refer to Issuing Carrier Rate Sheets listed below (Cont'd):		
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	Millry Telephone Company, Inc.	17-2.36.1	
	Moapa Valley Telephone Company	17-2.37.1	
	Pioneer Telephone Cooperative	17-2.38.1	
	Project Telephone Company	17-2.39.1	
	South Central Rural Telephone Cooperative	17-2.40.1	
	All West Communications, Inc. – UT	17-2.41.1	
	All West Communications, Inc. – WY	17-2.42.1	
	Chugwater Telephone Company	17-2.43.1	
	Citizens Telephone Company of Higginsville, Missouri	17-2.44.1	
	Delhi Telephone Company	17-2.45.1	
	Five Area Telephone Cooperative, Inc.	17-2.46.1	
	Hot Springs Telephone Company	17-2.47.1	
	Interbel Telephone Cooperative, Inc.	17-2.48.1	
	North Texas Telephone Company	17-2.49.1	
	Oklatel Communications, LLC	17-2.50.1	
	Phillips County Telephone Company d/b/a PC Telcom	17-2.51.1	
	Saddleback Communications Company	17-2.52.1	
	Santa Rosa Telephone Cooperative, Inc. – OK	17-2-53.1	
	Santa Rosa Telephone Cooperative, Inc. – TX	17-2.54.1	
	Totelcom Communications, LLC	17-2.55.1	
	West Plains Telecommunications, Inc.	17-2.56.1	
	Yukon Telephone Company	17-2.57.1	
	Southwest Oklahoma Telephone Company	17-2.58.1	
	3 Rivers Telephone Cooperative, Inc.	17-2.59.1	
	Granite State Telephone Company	17-2.60.1	
	Scio Mutual Telephone Company	17-2.61.1	
	South Central Utah Telephone Association, Inc.	17-2.62.1	
	Blue Earth Valley Telephone Company	17-2.63.1	(N)
	Cannon Valley Telecom, Inc.	17-2.64.1	
	Cordova Telephone Cooperative	17-2.65.1	
	Easton Telephone Company	17-2.66.1	
	Eckles Telephone Company	17-2.67.1	
	Hager Telecom Incorporated	17-2.68.1	
	Ketchikan Public Utilities d/b/a KPU Telecommunications	17-2.69.1	
	Laurel Highland Telephone Company	17-2.70.1	
	Wamego Telephone Company, Inc.	17-2.71.1	(N)
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	17.2	Switched Access Service (Cont'd)		
	{2}	Refer to Issuing Carrier Rate Sheets listed below (Cont'd):		
		Emery Telephone	17-2.72.1	
		Moundridge Telephone Company, Inc.	17-2.73.1	
		Ringgold Telephone Company	17-2.74.1	
		Steelville Telephone Exchange, Inc.	17-2.75.1	
		Yadkin Valley Telephone Membership Corporation	17-2.76.1	(N)

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	{3}	Refer to Issuing Carrier Rate Sheets listed below:	
		Arrowhead Communications Corporation Eagle Valley Telephone Company East Otter Tail Telephone Company Felton Telephone Company, Inc. Guadalupe Valley Telephone Co-op, Inc. Reserved for Future Use Osakis Telephone Company Peoples Telephone Company Twin Valley-Ulen Telephone Company, Inc. Callaway Telephone Company Clements Telephone Company The Home Telephone Company Loretel Systems, Inc. Melrose Telephone Company Midwest Telephone Company Redwood County Telephone Company	17-3.1.1 17-3.2.1 17-3.3.1 17-3.4.1 17-3.5.1 17-3.6.1 (T) 17-3.7.1 17-3.8.1 17-3.9.1 17-3.10.1 17-3.11.1 17-3.12.1 17-3.13.1 17-3.14.1 17-3.15.1 17-3.16.1
		La Harpe Telephone Company, Inc. Reserved for Future Use Reserved for Future Use Reserved for Future Use Dobson Telephone Company McLoud Telephone Company UBTA-UBET Communications Great Plains Communications LLC Brazos Telephone Cooperative, Inc. Panhandle Telephone Cooperative, Inc.	17-3.17.1 17-3.18.1 (T) 17-3.19.1 (T) 17-3.20.1 (T) 17-3.21.1 17-3.22.1 17-3.23.1 17-3.24.1 17-3.25.1 17-3.26.1

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17. <u>Rates and Charges</u> (Cont'd)

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{3} Refer to Issuing Carrier Rate Sheets listed below (Cont'd):

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Nemont Telephone Cooperative MT	17-3.28.1
Cambridge Telephone Company, Inc. – ID	17-3.29.1
Mid-Rivers Telephone Cooperative, Inc.	17-3.30.1
Rural Telephone Service Co., Inc. dba Nex-Tech	17-3.31.1
United Utilities, Inc.	17-3.32.1
United-KUC, Inc.	17-3.33.1
Accipiter Communications, Inc. D/B/A Zona Communications	17-3.34.1
Canby Telephone Association	17-3.35.1
Millry Telephone Company, Inc.	17-3.36.1
Moapa Valley Telephone Company	17-3.37.1
Pioneer Telephone Cooperative	17-3.38.1
Project Telephone Company	17-3.39.1
South Central Rural Telephone Cooperative	17-3.40.1
All West Communications, Inc. – UT	17-3.41.1
All West Communications, Inc. – WY	17-3.42.1
Chugwater Telephone Company	17-3.43.1
Citizens Telephone Company of Higginsville, Missouri	17-3.44.1
Delhi Telephone Company	17-3.45.1
Five Area Telephone Cooperative, Inc.	17-3.46.1
Hot Springs Telephone Company	17-3.47.1
Interbel Telephone Cooperative, Inc.	17-3.48.1
North Texas Telephone Company	17-3.49.1
Oklatel Communications, LLC	17-3.50.1
Phillips County Telephone Company d/b/a PC Telcom	17-3.51.1
Saddleback Communications Company	17-3.52.1
Santa Rosa Telephone Cooperative, Inc. – OK	17-3-53.1
Santa Rosa Telephone Cooperative, Inc. – TX	17-3.54.1
Totelcom Communications, LLC	17-3.55.1
West Plains Telecommunications, Inc.	17-3.56.1
Yukon Telephone Company	17-3.57.1
Southwest Oklahoma Telephone Company	17-3.58.1
3 Rivers Telephone Cooperative, Inc.	17-3.59.1
Granite State Telephone Company	17-3.60.1
Scio Mutual Telephone Company	17-3.61.1
South Central Utah Telephone Association, Inc.	17-3.62.1
Blue Earth Valley Telephone Company	17-3.63.1
Cannon Valley Telecom, Inc.	17-3.64.1

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Steelville Telephone Exchange, Inc.

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		17.4.3 Additional Labor	{4}	
		17.4.4 Miscellaneous Services	{4}	
		17.4.5 Special Federal Government Access Services	{4}	
		17.4.6 Special Facilities Routing of Access Services	{4}	
		17.4.7 Specialized Service or Arrangements	{4}	
	{4}	Refer to Issuing Carrier Rate Sheets listed below:		
		Arrowhead Communications Corporation	17-4.1.1	
		Eagle Valley Telephone Company	17-4.2.1	
		East Otter Tail Telephone Company	17-4.3.1	
		Felton Telephone Company, Inc.	17-4.4.1	
		Guadalupe Valley Telephone Co-op, Inc.	17-4.5.1	
		Reserved for Future Use	17-4.6.1	(N)
		Osakis Telephone Company	17-4.7.1	
		Peoples Telephone Company	17-4.8.1	
		Twin Valley-Ulen Telephone Company, Inc.	17-4.9.1	
		Callaway Telephone Company	17-4.10.1	
		Clements Telephone Company	17-4.11.1	
		The Home Telephone Company	17-4.12.1	
		Loretel Systems, Inc.	17-4.13.1	
		Melrose Telephone Company	17-4.14.1	
		Midwest Telephone Company	17-4.15.1	
		Redwood County Telephone Company	17-4.16.1	
		La Harpe Telephone Company, Inc.	17-4.17.1	(NT)
		Reserved for Future Use Reserved for Future Use	17-4.18.1	(N)
		Reserved for Future Use	17-4.19.1	(NI)
			17-4.20.1 17-4.21.1	(N)
		Dobson Telephone Company Mel and Telephone Company	17-4.21.1	
		McLoud Telephone Company UBTA-UBET Communications	17-4.22.1	
		Great Plains Communications LLC	17-4.23.1	
		Brazos Telephone Cooperative, Inc.	17-4.24.1	
		Panhandle Telephone Cooperative, Inc.	17-4.25.1	
		Nemont Telephone Cooperative, Inc. Nemont Telephone Cooperative ND/Missouri Valley Communications	17-4.20.1	
		Nemont Telephone Cooperative MT	17-4.27.1	
		Cambridge Telephone Company, Inc. – ID	17-4.29.1	
		Mid-Rivers Telephone Cooperative, Inc.	17-4.30.1	
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	17.4	Other Services (Cont'd)		
	{4 }	Refer to Issuing Carrier Rate Sheets listed below (Cont'd):		
		Rural Telephone Service Co., Inc. dba Nex-Tech	17-4.31.1	
		United Utilities, Inc.	17-4.32.1	
		United-KUC, Inc.	17-4.33.1	
		Accipiter Communications, Inc. D/B/A Zona Communications	17-4.34.1	
		Canby Telephone Association	17-4.35.1	
		Millry Telephone Company, Inc.	17-4.36.1	
		Moapa Valley Telephone Company	17-4.37.1	
		Pioneer Telephone Cooperative	17-4.38.1	
		Project Telephone Company	17-4.39.1	
		South Central Rural Telephone Cooperative	17-4.40.1	
		All West Communications, Inc. – UT	17-4.41.1	
		All West Communications, Inc. – WY	17-4.42.1	
		Chugwater Telephone Company	17-4.43.1	
		Citizens Telephone Company of Higginsville, Missouri	17-4.44.1	
		Delhi Telephone Company	17-4.45.1	
		Five Area Telephone Cooperative, Inc.	17-4.46.1	
		Hot Springs Telephone Company	17-4.47.1	
		Interbel Telephone Cooperative, Inc.	17-4.48.1	
		North Texas Telephone Company	17-4.49.1	
		Oklatel Communications, LLC	17-4.50.1	
		Phillips County Telephone Company d/b/a PC Telcom	17-4.51.1	
		Saddleback Communications Company	17-4.52.1	
		Santa Rosa Telephone Cooperative, Inc. – OK	17-4-53.1	
		Santa Rosa Telephone Cooperative, Inc. – TX	17-4.54.1	
		Totelcom Communications, LLC	17-4.55.1	
		West Plains Telecommunications, Inc.	17-4.56.1	
		Yukon Telephone Company	17-4.57.1	
		Southwest Oklahoma Telephone Company	17-4.58.1	
		3 Rivers Telephone Cooperative, Inc.	17-4.59.1	
		Granite State Telephone Company	17-4.60.1	
		Scio Mutual Telephone Company	17-4.61.1	
		South Central Utah Telephone Association, Inc.	17-4.62.1	
		Blue Earth Valley Telephone Company	17-4.63.1 (N	1)
		Cannon Valley Telecom, Inc.	17-4.64.1	,
		Cordova Telephone Cooperative	17-4.65.1	
		Easton Telephone Company	17-4.66.1	
		Eckles Telephone Company	17-4.67.1	
		Hager Telecom Incorporated	17-4.68.1	

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17. <u>Rates and Charges</u> (Cont'd)

17.4 Other Services (Cont'd)

{4} Refer to Issuing Carrier Rate Sheets listed below (Cont'd):

Laurel Highland Telephone Company 1	7-4.70.1
Wamego Telephone Company, Inc.	7-4.71.1
Emery Telephone 1	7-4.72.1 (N)
Moundridge Telephone Company, Inc. 1	7-4.73.1
Ringgold Telephone Company 1	7-4.74.1
Steelville Telephone Exchange, Inc. 1	7-4.75.1
Yadkin Valley Telephone Membership Corporation 1	7-4.76.1 (N)

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	{5}	Refer to Issuing Carrier Rate Sheets listed below:		
		Arrowhead Communications Corporation Eagle Valley Telephone Company East Otter Tail Telephone Company Felton Telephone Company, Inc. Guadalupe Valley Telephone Co-op, Inc. Reserved for Future Use Osakis Telephone Company Peoples Telephone Company Twin Valley-Ulen Telephone Company, Inc. Callaway Telephone Company Clements Telephone Company The Home Telephone Company Loretel Systems, Inc. Melrose Telephone Company Midwest Telephone Company Redwood County Telephone Company La Harpe Telephone Company, Inc.	17-5.1.1 17-5.2.1 17-5.3.1 17-5.4.1 17-5.5.1 17-5.6.1 17-5.7.1 17-5.8.1 17-5.9.1 17-5.10.1 17-5.11.1 17-5.12.1 17-5.13.1 17-5.14.1 17-5.15.1 17-5.15.1	(T)
		Reserved for Future Use Reserved for Future Use Dobson Telephone Company McLoud Telephone Company UBTA-UBET Communications Great Plains Communications LLC Brazos Telephone Cooperative, Inc. Panhandle Telephone Cooperative, Inc. Nemont Telephone Cooperative ND/Missouri Valley Communications Nemont Telephone Cooperative MT Cambridge Telephone Company, Inc. – ID Mid-Rivers Telephone Cooperative, Inc. Rural Telephone Service Co., Inc. dba Nex-Tech United Utilities, Inc. United-KUC, Inc. Accipiter Communications, Inc. D/B/A Zona Communications	17-5.18.1 17-5.19.1 17-5.20.1 17-5.21.1 17-5.22.1 17-5.23.1 17-5.24.1 17-5.25.1 17-5.26.1 17-5.27.1 17-5.28.1 17-5.29.1 17-5.30.1 17-5.31.1 17-5.32.1 17-5.33.1 17-5.34.1	(T) (T)

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		Felton Telephone Company, Inc.	17-6.4.1	
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		Osakis Telephone Company	17-6.7.1	
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		Twin Valley-Ulen Telephone Company, Inc.	17-6.9.1	
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		Redwood County Telephone Company	17-6.16.1	
		La Harpe Telephone Company, Inc.	17-6.17.1	
		Reserved for Future Use	17-6.18.1	
		Reserved for Future Use	17-6.19.1	
		Reserved for Future Use	17-6.20.1	(T)
		Dobson Telephone Company	17-6.21.1	
		McLoud Telephone Company	17-6.22.1	
		UBTA-UBET Communications	17-6.23.1	
		Great Plains Communications LLC	17-6.24.1	
		Brazos Telephone Cooperative, Inc.	17-6.25.1	
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		Nemont Telephone Cooperative MT	17-6.28.1	
		Cambridge Telephone Company, Inc. – ID	17-6.29.1	
		Mid-Rivers Telephone Cooperative, Inc.	17-6.30.1	
		Rural Telephone Service Co., Inc. dba Nex-Tech	17-6.31.1	
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	Chugwater Telephone Company	17-6.43.1	
	Citizens Telephone Company of Higginsville, Missouri	17-6.44.1	
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	Five Area Telephone Cooperative, Inc.	17-6.46.1	
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	Phillips County Telephone Company d/b/a PC Telcom	17-6.51.1	
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	Scio Mutual Telephone Company	17-6.61.1	
	South Central Utah Telephone Association, Inc.	17-6.62.1	
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	Easton Telephone Company	17-6.66.1	
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		Felton Telephone Company, Inc.	17-7.4.1	
		Guadalupe Valley Telephone Co-op, Inc.	17-7.5.1	
		Reserved for Future Use	17-7.6.1	(T)
		Osakis Telephone Company	17-7.7.1	
		Peoples Telephone Company	17-7.8.1	
		Twin Valley-Ulen Telephone Company, Inc.	17-7.9.1	
		Callaway Telephone Company	17-7.10.1	
		Clements Telephone Company	17-7.11.1	
		The Home Telephone Company	17-7.12.1	
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		Melrose Telephone Company	17-7.14.1	
		Midwest Telephone Company	17-7.15.1	
		Redwood County Telephone Company	17-7.16.1	
		La Harpe Telephone Company, Inc.	17-7.17.1	
		Reserved for Future Use	17-7.18.1	(T)
		Reserved for Future Use	17-7.19.1	
		Reserved for Future Use	17-7.20.1	(T)
		Dobson Telephone Company	17-7.21.1	
		McLoud Telephone Company	17-7.22.1	
		UBTA-UBET Communications	17-7.23.1	
		Great Plains Communications LLC	17-7.24.1	
		Brazos Telephone Cooperative, Inc.	17-7.25.1	
		Panhandle Telephone Cooperative, Inc.	17-7.26.1	
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		Cambridge Telephone Company, Inc. – ID	17-7.29.1	
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	All West Communications, Inc. – UT	17-7.41.1	
	All West Communications, Inc. – WY	17-7.42.1	
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	Citizens Telephone Company of Higginsville, Missouri	17-7.44.1	
	Delhi Telephone Company	17-7.45.1	
	Five Area Telephone Cooperative, Inc.	17-7.46.1	
	Hot Springs Telephone Company	17-7.47.1	
	Interbel Telephone Cooperative, Inc.	17-7.48.1	
	North Texas Telephone Company	17-7.49.1	
	Oklatel Communications, LLC	17-7.50.1	
	Phillips County Telephone Company d/b/a PC Telcom	17-7.51.1	
	Saddleback Communications Company	17-7.52.1	
	Santa Rosa Telephone Cooperative, Inc. – OK	17-7-53.1	
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	Totelcom Communications, LLC	17-7.55.1	
	West Plains Telecommunications, Inc.	17-7.56.1	
	Yukon Telephone Company	17-7.57.1	
	Southwest Oklahoma Telephone Company	17-7.58.1	
	3 Rivers Telephone Cooperative, Inc.	17-7.59.1	
	Granite State Telephone Company	17-7.60.1	
	Scio Mutual Telephone Company	17-7.61.1	
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	Blue Earth Valley Telephone Company	17-7.63.1	(N)
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	Cordova Telephone Cooperative	17-7.65.1	
	Easton Telephone Company	17-7.66.1	
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	{8}	Refer to Issuing Carrier Rate Sheets listed below:		
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		Eagle Valley Telephone Company	17-8.2.1	
		East Otter Tail Telephone Company	17-8.3.1	
		Felton Telephone Company, Inc.	17-8.4.1	
		Guadalupe Valley Telephone Co-op, Inc.	17-8.5.1	
		Reserved for Future Use	17-8.6.1	(T)
		Osakis Telephone Company	17-8.7.1	
		Peoples Telephone Company	17-8.8.1	
		Twin Valley-Ulen Telephone Company, Inc.	17-7.9.1	
		Callaway Telephone Company	17-8.10.1	
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		Loretel Systems, Inc.	17-8.13.1	
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		Midwest Telephone Company	17-8.15.1	
		Redwood County Telephone Company	17-8.16.1	
		La Harpe Telephone Company, Inc.	17-8.17.1	
		Reserved for Future Use	17-8.18.1	(T)
		Reserved for Future Use	17-8.19.1	
		Reserved for Future Use	17-8.20.1	(T)
		Dobson Telephone Company	17-8.21.1	
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		UBTA-UBET Communications	17-8.23.1	
		Great Plains Communications LLC	17-8.24.1	
		Brazos Telephone Cooperative, Inc.	17-8.25.1	
		Panhandle Telephone Cooperative, Inc.	17-8.26.1	
		Nemont Telephone Cooperative ND/Missouri Valley Communications	17-8.27.1	
		Nemont Telephone Cooperative MT	17-8.28.1	
		Cambridge Telephone Company, Inc. – ID	17-8.29.1	
		Mid-Rivers Telephone Cooperative, Inc.	17-8.30.1	
		Rural Telephone Service Co., Inc. dba Nex-Tech	17-8.31.1	
		United Utilities, Inc.	17-8.32.1	
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		Millry Telephone Company, Inc.	17-8.36.1
		Moapa Valley Telephone Company	17-8.37.1
		Pioneer Telephone Cooperative	17-8.38.1
		Project Telephone Company	17-8.39.1
		South Central Rural Telephone Cooperative	17-8.40.1
		All West Communications, Inc. – UT	17-8.41.1
		All West Communications, Inc. – WY	17-8.42.1
		Chugwater Telephone Company	17-8.43.1
		Citizens Telephone Company of Higginsville, Missouri	17-8.44.1
		Delhi Telephone Company	17-8.45.1
		Five Area Telephone Cooperative, Inc.	17-8.46.1
		Hot Springs Telephone Company	17-8.47.1
		Interbel Telephone Cooperative, Inc.	17-8.48.1
		North Texas Telephone Company	17-8.49.1
		Oklatel Communications, LLC	17-8.50.1
		Phillips County Telephone Company d/b/a PC Telcom	17-8.51.1
		Saddleback Communications Company	17-8.52.1
		Santa Rosa Telephone Cooperative, Inc. – OK	17-8-53.1
		Santa Rosa Telephone Cooperative, Inc. – TX	17-8.54.1
		Totelcom Communications, LLC	17-8.55.1
		West Plains Telecommunications, Inc.	17-8.56.1
		Yukon Telephone Company	17-8.57.1
		Southwest Oklahoma Telephone Company	17-8.58.1
		3 Rivers Telephone Cooperative, Inc.	17-8.59.1
		Granite State Telephone Company	17-8.60.1
		Scio Mutual Telephone Company	17-8.61.1
		South Central Utah Telephone Association, Inc.	17-8.62.1
		Blue Earth Valley Telephone Company	17-8.63.1 (N
		Cannon Valley Telecom, Inc.	17-8.64.1
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CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

NO OTHER PARTICIPATING CARRIERS

<u>REGISTERED SERVICE MARKS</u>
<u>REGISTERED TRADEMARKS</u>

NONE

EXPLANATION OF SYMBOLS

C - to signify changed regulation.

D - to signify discontinued rate or regulation.
 I - to signify increase to a rate or charge.

 $\,M\,\,$ - $\,\,$ to signify matter relocated without change.

N - to signify new rate or regulation.R - to signify reduction to a rate or charge.

S - to signify reduction to a rate of charge.

T - to signify a change in text but no change in rate or regulation.

Z - to signify a correction.

EXPLANATION OF ABBREVIATIONS

ACR - Alternate Carrier Routing ADM - Add/Drop Multiplexing

ADSL - Asymmetric Digital Subscriber Line
- Advanced Intelligent Network

AML - Actual Measured Loss

ANI - Automatic Number Identification

AP - Program Audio

ARC - Access Recovery Charge ATM - Asynchronous Transfer Mode

ATM-CRS - Asynchronous Transfer Mode Cell Relay Access Service

BBZS - Bipolar with Eight Zero Substitution
BHMC - Busy Hour Minutes of Capacity

CBR - Constant Bit Rate

CCC - Clear Channel Capability
 CCS - Common Channel Signaling
 CDP - Customer Designated Premises

CI - Channel Interface

CIR - Committed Information Rate

CN - Charge Number

CNP - Charge Number Parameter

CO - Central Office Cont'd - Continued CoS - Class of Service

CPE - Customer Provided Equipment

CPN - Calling Party Number
CSP - Carrier Selection Parameter

DA - Directory Assistance

dB - decibel

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

dc - direct current

EXPLANATION OF ABBREVIATIONS (Cont'd)

DDD - Direct Distance Dialing
DSL - Digital Subscriber Line
EAS - Extended Area Service
EDD - Envelope Delay Distortion
EML - Expected Measured Loss

EPL - Echo Path Loss ERL - Echo Return Loss

ESALT - Ethernet Switched Access Local Transport

ESS - Electronic Switching System

ESSX - Electronic Switching System Exchange

ETS - Ethernet Transport Service EVC - Ethernet Virtual Connection

E-EVC - Extended Ethernet Virtual Connection

f - frequency

F.C.C. - Federal Communications Commission

FRAS - Frame Relay Access Service

GETS - Government Emergency Telecommunications Service

HC - High Capacity

HPC - High Probability of Completion

Hz - Hertz

IC - Interexchange Carrier
 ICB - Individual Case Basis
 ICL - Inserted Connection Loss

I-EVC - Interconnected Ethernet Virtual Connection

IP - Internet Protocol

IPG - Internet Protocol Gateway Access Service

ISDN BRI - Integrated Services Digital Network – Basic Rate Interface
 ISDN PRI - Integrated Services Digital Network – Primary Rate Interface

kbps - kilobits per second

kHz - kilohertz

LAN - Local Area Network

LATA - Local Access and Transport Area LBR-VCC - Low Bit Rate-Virtual Circuit Channel

LNP - Local Number Portability
LRN - Location Routing Number

ma - milliamperes

Mbps - Megabits per second

mcs - Microsecond MHz - Megahertz

MRC - Monthly Recurring Charge

MT - Metallic

MTS - Message Telecommunications Service(s)

EXPLANATION OF ABBREVIATIONS (Cont'd)

NC - Network Channel

NCI - Network Channel Interface NNI - Network to Network Interface

NPA - Numbering Plan Area NRC - Nonrecurring Charge

NXX - Three-Digit Central Office Prefix

OC - Optical Carrier

OLT - Optical Line Termination PBX - Private Branch Exchange

PIC - InterLATA Presubscribed Interexchange Carrier

POT - Point of Termination

PSTN - Public Switched Telephone Network

PVC - Permanent Virtual Connection

SAC - Service Access Code

SDSL - Symmetric Digital Subscriber Line
 SNAL - Signaling Network Access Link
 SONET - Synchronous Optical Network

SP - Signaling Point

SPOI - Signaling Point of Interface
 SRL - Signaling Return Loss
 SSP - Service Switching Point
 SS7 - Signaling System 7
 STP - Signal Transfer Point

STS - Synchronous Transport Signal

SWC - Serving Wire Center

TDM - Time Division Multiplexing

TG - Telegraph Grade

TLP - Transmission Level Point

TV - Television

UBR - Unspecified Bit Rate
UNI - User Network Interface
V & H - Vertical & Horizontal

VBR-nrt - Variable Bit Rate – non-real time
VBR-rt - Variable Bit Rate – real time
VCC - Virtual Circuit Channel

VG - Voice Grade VP - Virtual Path

WATS - Wide Area Telecommunications Service(s)

WSC - Wireless Switching Center WSO - WATS Serving Office

REFERENCE TO OTHER TARIFFS

(x)

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 tariffs are referenced in this tariff and may be obtained from the Federal Communications Commission's commercial contractor:

National Exchange Carrier
Association, Inc. (NECA)
Tariff F.C.C. No. 3
Access Service

National Exchange Carrier
Association, Inc. (NECA)
Tariff F.C.C. No. 5
Access Service

REFERENCE TO TECHNICAL PUBLICATIONS

(x)

The following technical publications are referenced in this tariff and may be obtained from Telecordia Technologies Inc. dba iconnectiv (formerly Bell Communications Research, Inc. – Bellcore), One Telecordia Drive, Piscataway, NJ 08854-4151 (www.telcordia.com).

Technical Reference:

GR-253-CORE Issue 5 Synchronous Optical Network (SONET) Transport Systems:

Common Generic Criteria

Issued: October, 2009

GR-1374-CORE Issue 1 SONET Inter-Carrier Interface Physical Layer Generic

Criteria for Carriers

Issued: December 1994

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

Issued: September 1983

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

Service

Issued: October 1985

GR-334-CORE Issue 1 Switched Access Service:

Transmission Parameter Limits and Interface Combinations

Issued: June 1994

TR-NWT-000335, Issue 3 Voice Grade Special Access Service - Transmission

Parameter Limits and Interface Combinations

Issued: May 1993

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TR-NPL-000336 Metallic and Telegraph Grade Special Access Service-Transmission Parameter Limits and Interface Combinations

Issued: October 1987

GR-337-CORE, Issue 1 Program Audio Special Access Service and Local Channel Services

Issued: December 1995

GR-338-CORE, Issue 1 Television Special Access and Local Channel Services - Transmission Parameter Limits and Interface Combinations

Issued: December 1995

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

Issued: Issue 2, February 1993

GR-342-CORE, Issue 1 High Capacity Digital Special Access Service - Transmission Parameters Limits and Interface Combinations

Issued: December 1995

SR-307 Common Language NC/NCI Dictionary

Issued: Issue 7, September 2008

GR-506-CORE, Issue 3 Signaling for Analog Interfaces (LSSGR)

Issued: December 2011

GR-54-CORE, Issue 1 DSI High Capacity Digital Service End User Metallic Interface Specifications

Issued: December 1995

GR-905-CORE, Issue 18 Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User

Part (ISDNUP)

Available: December 2015

TR-TSV-001370 Generic Requirements for Exchange Access Frame Relay PVC Service

Issued: Issue 1, May 1993

GR-394-CORE Issue 8 Switching System Generic Requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP)

Issued: December 2007

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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REFERENCE TO TECHNICAL PUBLICATIONS (Cont'd)

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GR-2936-CORE Issue 3 Local Number Portability (LNP) Capability Specification Service Provider Portability

Issued: November 1997

ST-TEC-000053 Telecommunications Transmission Engineering Volume 3 - Networks and Services (Chapters 6 and 7)

Third Edition

Issued: August 1989

The following technical publication is referenced in this tariff and may be obtained from the National Exchange Carrier Association, Inc., Director - Access Tariffs, 80 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 U.S. Government Printing Office, Superintendent of Documents, Document Control Branch, 732 North Capitol Street, NW, Washington, DC 20401-0001, or from the Telecommunications Service Priority (TSP)Program Office (sende-mail request to tsp@hq.dhs.gov).

Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Service Vendor Handbook, National Communications System (NCSH3-1-2).

Issued: July 1990

Revised: December 10, 2000

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

Issued: July 1990 Revised: May 5, 2000

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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The following technical publications are referenced in this tariff and may be obtained from the Alliance for Telecommunications Industry Solutions (ATIS), 1200 G Street N.W., Suite 500, Washington, DC 20005 (www.atis.org)

ATIS-0600410.2001 (R2011), Network to Customer Installation Interfaces - Digital Data at 64 Kbit/s and Subrates

ATIS-0900102.1993 (R2010), Digital Hierarchy - Electrical Interfaces.

ATIS-0900105.2008, Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats.

ATIS-1000602.1996 (R2009), Integrated Services Digital Network (ISDN) - Data-Link Layer Signaling Specification for Application at the User-Network Interface.

ATIS-1000618.1991 (R2008), Integrated Services Digital Network (ISDN) - Core Aspects of Frame Protocol for Use with Frame Relay Bearer Service.

ATIS-0600413.2009, Network To Customer Installation Interfaces - Asymmetric Digital Subscriber Line (ADSL)Metallic Interface.

Multiple Exchange Carrier Access Billing (MECAB)Guidelines

Issued: September 2010

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Issued: March 2014

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The following technical publication is referenced in this tariff and may be obtained from the Institute of Electrical and Electronics Engineers, Inc. (IEEE), 445 Hoes Lane, Piscataway, NJ 08854-4141 (www.ieee.org).

IEEE Std. 802.lD - 2004, Local and Metropolitan Area Networks Media Access Control (MAC)Bridges, Sections 7, 9, 17 and Annex G.

IEEE Std. 802.IQ - 2005, Local and Metropolitan Area Networks Virtual Bridged Local Area Networks, Sections 5 through 12 and Annexes E and G.

IEEE Std. 802.3 - 2008, Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements, Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD)Access Method and Physical Layer Specifications, Sections 1 through 5.

The following IP/MPLS technical publications are referenced in this tariff and may be obtained from the Broadband Forum, 48377 Fremont Blvd. Suite 117, Fremont, CA 94538 (www.broadband-forum.org).

The ATM Forum Technical Committee, ATM User-Network Interface (UNI) Signalling Specification, Version 4.1, af-sig-0061.002, April, 2002.

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

The ATM Forum Technical Committee, Private Network - Network Interface Specification, Version 1.1 (PNNI1.1) af-pnni-0055.002, April, 2002.

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The following technical publications are referenced in this tariff and may be viewed online without charge on the Internet Engineering Task Force web site (www.ietf.org) using the "RFC Pages" link.

Request For Comments (RFC) 791, Internet Protocol, DARPA Internet Program Protocol Specification, September 1981.

Request For Comments (RFC) 1483, Multiprotocol Encapsulation over ATM Adaptation Layer 5, July 1993.

Request for Comments (RFC)3261, SIP: Session Initiation Protocol, June 2002.

Request for Comments (RFC) 3262, Reliability of Provisional Responses in the Session Initiation Protocol (SIP), June 2002.

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Request for Comments (RFC) 3264, An Offer/Answer Model with the Session Description Protocol (SOP), June 2002.

Request for Comments (RFC) 3265, Session Initiation Protocol (SIP)- Specific Event Notification, June 2002.

Request for Comments (RFC)3550, RTP:A Transport Protocol for Real-Time Applications, July 2003.

The following technical publications are referenced in this tariff and may be obtained from the International Telecommunication Union Telecommunication Standardization Sector (ITU-T) Place des Nations, 1211 Geneva 20, Switzerland (www.itu.int/rec/T-REC-G/e).

ITU-T G.711 - November 1988, Pulse Code Modulation (PCM) of Voice Frequencies.

ITU-T G.723.1 - May 2006, Dual Rate Speech Coder for Multimedia Communications Transmitting at 5.3 and 6.3 kbit/s.

ITU-T G.729 - January 2007, Coding of Speech at 8 kbit/s Using Conjugate-Structure Algebraic-Code-Excited Linear Prediction (CS-ACELP).

ITU-T G.7041/Y.1303 - August 2005, Generic Framing Procedure (GFP).

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ITU-T G.983.1-January 2005, Broadband Optical Access Systems Based on Passive Optical Networks (PON).

ITU-T G.983.2-July 2005, ONT Management and Control Interface Specification for B-PON.

ITU-T G.983.3-March 2001, A Broadband Optical Access System with Increased Service Capability by Wavelength Allocation.

ITU-T G.983.4-November 2001, A Broadband Optical Access System with Increased Service Capability Using Dynamic Bandwidth Assignment.

ITU-T G.984.1-March 2008, Gigabit-Capable Passive Optical Networks (GPON): General Characteristics.

ITU-T G.984.2-March 2003, Gigabit-Capable Passive Optical Networks (GPON): Physical Media Dependent (PMD)Layer Specification.

ITU-T G.984.3-March 2008, Gigabit-Capable Passive Optical Networks (GPON): Transmission Convergence Layer Specification.

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ITU-T G.992.1-June 1999, Asymmetric Digital Subscriber Line (ADSL) Transceivers.

ITU-T G.992.3-January 2005, Asymmetric Digital Subscriber Line Trnsceivers 2 (ADSL2).

ITU-T G.992.4-July 2002, Splitterless Asymmetric Digital Subscriber Line Transceivers 2 (Splitterless ADSL2).

ITU-T G.992.5-January 2005, Asymmetric Digital Subscriber Line (ADSL) Transceivers-Extended Bandwidth ADSL2 (ADSL2+).

ITU-T G.993.2-February 2006, Very High Speed Digital Subscriber Line Transceivers 2 (VDSL2).

ITU-T G.8040/Y.1340 - September 2005, GFP Frame Mapping into Plesiochronous Digital Hierarchy (PDH).

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ITU-T H.225.0 - May 2006, Call Signalling Protocols and Media Stream Packetization for Packet-Based Multimedia Communication Systems.

ITU-T H.245 - June 2008, Control Protocol for Multimedia Communication.

ITU-T H.323 - June 2006, Packet-Based Multimedia Communications Systems.

The following technical publications are referenced in this tariff and may be obtained from the International Telecommunication Union Telecommunication Standardization Sector (ITU-T) Place des Nations, 1211 Geneva 20, Switzerland (www.itu.int/rec/T-REC-I/e).

ITU-CCITT I.233.1-1992, Integrated Services Digital Network (ISDN) General Structure and Service Capabilities, Frame Mode Bearer Services.

ITU-CCITT I.233.2-1992, Integrated Services Digital Network (ISDN) General Structure and Service Capabilities, ISDN Frame Switching Bearer Service.

ITU-CCITT I.370-1991, Integrated Services Digital Network (ISDN) Overall Network Aspects and Functions, ISDN User-Network Interfaces, Congestion Management for the ISDN Frame Relaying Bearer Service.

The following technical publications are referenced in this tariff and may be obtained from the International Telecommunication Union Telecommunication Standardization Sector (ITU-T) Place des Nations, 1211 Geneva 20, Switzerland (www.itu.int/rec/T-REC-Q/e).

ITU-T Q.933-February 2003, Series Q: Switching and Signalling Digital Subscriber Signalling System No.1 - Network Layer, ISDN Digital Subscriber Signalling System No.1 (DSSI) - Signalling Specifications from Frame Mode Switched and Permanent Virtual Connection Control and Status Monitoring.

The following technical publication is referenced in this tariff and may be obtained from the Metro Ethernet Forum (MEF) 6033 W. Century Boulevard, Suite 1107, Los Angeles, CA 90045 (www.metroethernetforum.org).

Implementation Agreement MEF 23.1, Carrier Ethernet Class of Service - Phase 2, January 2012.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

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1. Application of Tariff

- 1.1 This tariff contains regulations, rates and charges applicable to the provision of End User Access, Switched Access, Special Access, Digital Subscriber Line Access Service, 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 referred to as 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. General Regulations

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 service it provides.
- (C) The Telephone Company will, for maintenance purposes, test its service only to the extent necessary to detect and/or clear troubles.
- (D) Services are provided 24 hours daily, seven days per week, except as set forth in other applicable sections of this 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 <u>Limitations</u>

(A) Assignment or Transfer of Services

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 service, if any.

In all cases of assignment or transfer, the written acknowledgment of the Telephone Company is required prior to such assignment or transfer. This acknowledgment 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.

2. General Regulations (Cont'd)

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

2.1.2 Limitations (Cont'd)

(A) Assignment or Transfer of Services (Cont'd)

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) Use and Restoration of Services

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

(C) <u>Sequence of Provisioning</u>

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

The first-come, first-served sequence shall be based upon the received time and date recorded, by stamp or other notation, by the 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.

2.1.3 <u>Liability</u>

(A) Limits of Liability

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

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2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.3 Liability (Cont'd)

(A) Limits of Liability (Cont'd)

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) <u>Damages to Customer Premises</u>

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) By the End User

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;
- (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. General Regulations (Cont'd)

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

2.1.3 Liability (Cont'd)

(D) Indemnification of Telephone Company (Cont'd)

(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) <u>Explosive Atmospheres</u>

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

(F) No License 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.

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2. General Regulations (Cont'd)

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

2.1.3 Liability (Cont'd)

(G) Circumstances Beyond the Telephone Company's Control

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 Service Interruptions as set forth in Section 2.4.4, following.

2.1.4 <u>Provision of Services</u>

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 intra-building 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 Sections 6.4.4 and 7.2.3, following.

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.

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2. General Regulations (Cont'd)

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

2.1.7 Changes and Substitutions (Cont'd)

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 customer to determine reasonable notification procedures.

2.1.8 Refusal and Discontinuance of Service

- (A) If a customer fails to comply with Section 2.1.6, preceding (Service Maintenance) or Sections 2.3.1, 2.3.4, 2.3.6, 2.3.11, 2.4.1 or 2.5, following (respectively, Damages; Availability for Testing; Balance; Jurisdictional Report and Certification Requirements; Payment of Rates, Charges and Deposits; or Connections), including any customer's failure to make payments on the date and times therein specified, the Telephone Company may, on thirty (30) calendar days written notice by Certified U.S. Mail or overnight delivery to the person designated by that customer to receive such notices of noncompliance, 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.

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2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.8 Refusal and Discontinuance of Service (Cont'd)

- (B) In addition to and not in limitation of the provisions in (A), above, if a customer fails to comply with Section 2.4.1, following (Payment of Rates, Charges and Deposits), including any payments to be made by it on the dates and times therein specified, the Telephone Company may take the actions specified in (A), above, with regard to services provided hereunder to that customer on fifteen (15) calendar days written notice to the person designated by that customer to receive such notices of noncompliance, such notice period to start the day after the notice is sent by overnight delivery, if the customer has not complied with respect to amounts due in a subject bill or subject deposit request and either:
 - (1) the Telephone Company has sent the subject bill to the customer within seven (7) business days of the bill date; or
 - (2) the Telephone Company has sent the subject bill to the customer more than thirty (30) calendar days before notice under this section is given; or
 - (3) the Telephone Company has sent the subject deposit request to the customer more than fifteen (15) business days before notice under this section is given.

In all other cases, the Telephone Company will give thirty (30) calendar days written notice pursuant to (A), above. The Telephone Company will maintain records sufficient to validate the date upon which a bill or deposit request was sent to the customer. Action specified in (A), above, will not be taken with regard to the subject bill or subject deposit request if the customer cures the noncompliance prior to the expiration of the fifteen (15) or thirty (30) days notice period, as applicable.

- (C) If notice is given by overnight delivery under (A) or (B), above, it shall be performed by a reputable overnight delivery service such as, or comparable to, the U.S. Postal Service Express Mail, United Parcel Service, or Federal Express.
- (D) The provisions in (A) and (B), above, shall not apply to charges that a customer does not pay based on the submission of a good faith dispute pursuant to Section 2.4.1(D), following (Billing Disputes).

(x) (x)

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- 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)
 - (E) If a customer fails to comply with Section 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.

- (F) 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 Section 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 Section 2.4.4, following, is not applicable.
- (G) 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.
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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)

(G) (Cont'd)

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.

(H) 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 Notification of Service-Affecting Activities

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

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

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

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 man-made disasters which affect telecommunications services.

2. General Regulations (Cont'd)

2.1 Undertaking of the Telephone Company (Cont'd)

2.1.11 Provisions and Ownership of Telephone Numbers

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

2.2 Use

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 Damages

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

2.3.2 Ownership of Facilities and Theft

Facilities utilized by the Telephone Company to provide service under the provisions of this tariff shall remain the property of the Telephone Company. Such facilities shall be returned to the Telephone Company by the customer, whenever requested, within a reasonable period. 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 Section 2.4.4(C)(4), following, no credit will be allowed for any interruptions involved during such tests and adjustments.

(x)

ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 <u>Obligations of the Customer</u> (Cont'd)

2.3.5 Limitations 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 <u>Design of Customer Services</u>

Subject to the provision of Section 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.

2.3.9 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.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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Issued: June 16, 2016 Effective: July 1, 2016

2. General Regulations (Cont'd)

2.3 <u>Obligations of the Customer</u> (Cont'd)

2.3.9 Claims and Demands for Damages (Cont'd)

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

2.3.11 <u>Jurisdictional Report and Certification Requirements</u>

(A) <u>Certification Requirements - Special Access and Public Packet Data</u> Network Services

When the customer orders Special Access Service or Public Packet Data Network Service 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 and is provided under this Tariff.

Following initial certification, should the jurisdictional nature of the customer's Special Access or Public Packet Data Network Services 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</u> - <u>Special Access and</u> Public Packet Data Network Services

If a dispute arises concerning the certification of projected interstate traffic as described in (A) 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 or Public Pack Data Network Service, 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 Service.

(C) <u>Jurisdictional Reports - Switched Access</u>

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. For purposes of determining the jurisdiction of Switched Access Services, the regulations set forth in (1) through (4), below, apply.

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)
 - (C) Jurisdictional Reports Switched Access (Cont'd)
 - (1) Percentage of Interstate Use (PIU)
 - (a) For purposes of developing the projected interstate percentage for Feature Group C or D, the customer shall consider every call that originates from a calling party in one state and terminates to a called party in a different state to be interstate communications. The customer shall consider every call that terminates to a called party within the same state as the state where the calling party is located to be intrastate communications. The manner in which a call is routed through the telecommunications network does not affect the jurisdiction of a call, i.e., a call between two points within the same state is an intrastate call even if it is routed through another state.

For purposes of developing the projected interstate percentage for Feature Group A or B, 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 telephone number) is situated is an intrastate communication and every call for which the point of entry is a state other than that where the called station (as designated by the called station telephone number) is situated, is an interstate communication.

- 2. General Regulations (Cont'd)
 - 2.3 Obligations of the Customer (Cont'd)
 - 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)
 - (C) Jurisdictional Reports - Switched Access (Cont'd)
 - (1) Percentage of Interstate Use (PIU) (Cont'd)
 - (b) When the Telephone Company receives sufficient call detail to permit it to determine the jurisdiction of some or all originating and terminating access minutes of use, the Telephone Company will use that call detail to render bills for those minutes of use and will not use PIU factor(s) described in (2), below, to determine the jurisdiction of those minutes of use.

When the Telephone Company receives insufficient call detail to determine the jurisdiction of some or all originating and terminating access minutes of use, the Telephone Company will apply the PIU factor(s) provided by the customer or developed by the Telephone Company as set forth in (2), below, only to those minutes of use for which the Telephone Company does not have sufficient call detail. Such PIU factor(s) will be used until the customer provides an update to its PIU factor(s) as set forth in (2)(g) or (h), below.

For all flat rated Switched Access Services, the Telephone Company will apply the PIU factor(s) as provided by the customer or developed by the Telephone Company as set forth in (2), below, each month until the customer provides an update to its PIU factor(s) as described in (2)(g) or (h), below.

- 2. General Regulations (Cont'd)
 - 2.3 Obligations of the Customer (Cont'd)
 - 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)
 - (C) Jurisdictional Reports - Switched Access (Cont'd)
 - (2) Use of PIU Factors
 - As specified in Section 5.2.1, following, the customer (a) will provide a projected PIU for each Switched Access Service for end office when placing its order. Such PIU factors are applied to all usage rated elements (including but not limited to Information Surcharge, Local Switching and Tandem Switched Transport), where the Telephone Company does not receive sufficient call detail to determine the jurisdiction of the usage.

If the customer fails to provide a PIU factor on its order for service, the following provisions apply:

- For originating access minutes, when the call (i) detail is adequate to determine the appropriate jurisdiction and when the Feature Group C or D access minutes of use are measured, the Telephone Company will develop PIU factor(s) on a monthly basis by end office by dividing the customer's measured interstate originating access minutes (the access minutes where the calling party is in one state and the called party is in another state) by the customer's total originating access minutes.
- (ii) For terminating access minutes, other than as specified in (iii), below, the same data used by the Telephone Company to develop the PIU factor for originating access minutes will be used to develop the PIU factor for such terminating minutes.

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 <u>Jurisdictional Report and Certification Requirements</u> (Cont'd)
 - (C) <u>Jurisdictional Reports Switched Access</u> (Cont'd)
 - (2) Use of PIU Factors (Cont'd)
 - (a) (Cont'd)
 - (iii) For terminating Feature Group D access minutes used in conjunction with Ethernet Switched Access Local Transport, as described in Section 6.1.1(A), following, or Internet Protocol Gateway Access Service (IPG), as described in Section 16.4, following, the Telephone Company will apply a default PIU of 50% to the customer's terminating access minutes.

The Telephone Company developed PIU factor(s) described in this section will only be used for minutes of use for which the Telephone Company does not have sufficient call detail to determine the jurisdiction until such time as the customer provides updated PIU factor(s) for these services.

(b) Separate PIUs are required for flat rated Entrance Facilities, Direct Trunked Transport Facilities, and Switched Access Services Optional Features and Functions. The PIU factor(s) for use with such flat rated elements will reflect the combination of originating and terminating traffic of all services using such facilities.

If the customer fails to provide a PIU factor on its order for service, the Telephone Company will apply the PIU factor it developed pursuant to (2)(a), above, against the customer's flat rated Switched Access Services to apportion those charges between the jurisdictions.

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 <u>Jurisdictional Report and Certification Requirements</u> (Cont'd)
 - (C) <u>Jurisdictional Reports Switched Access</u> (Cont'd)
 - (2) <u>Use of PIU Factors</u> (Cont'd)
 - (c) When a customer orders Feature Group A or B Switched Access Service, the customer shall, in its order, state the projected percentage for interstate usage for each Feature Group A or B Switched Access Service group ordered. The term group shall be construed to mean single lines or trunks as well. For all groups the number of access minutes (either measured or assumed) for a group will be multiplied by the projected interstate percentage to develop the interstate access minutes. The number of access minutes for the group minus the developed interstate access minutes for the group will be the developed intrastate access minutes.
 - (d) Reserved for Future Use.
 - (e) When the customer has both interstate and intrastate Operator Services traffic, the percentage interstate usage determined for the customer's FGC or FGD service will be applied to the customer's Operator Services charges.
 - (f) For each service, the customer may only provide a PIU factor that is in a whole number format, i.e., a number from 0 to 100. When the customer provides the PIU factor, the Telephone Company will subtract the provided PIU from 100 and the difference is the percent intrastate usage. The sum of the interstate and intrastate percentages will equal 100 percent. The customer provided factors will be used by the Telephone Company as described in (1)(b), above, until the customer provides updated PIU factors as required in (2)(g) or (h), below.

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 <u>Jurisdictional Report and Certification Requirements</u> (Cont'd)
 - (C) <u>Jurisdictional Reports Switched Access</u> (Cont'd)
 - (2) <u>Use of PIU Factors</u> (Cont'd)
 - (g) When the customer adds or discontinues Busy Hour Minutes of Capacity (BHMC), lines or trunks to an existing Switched Access Service group, the customer shall furnish a revised projected interstate percentage for the remaining BHMC, lines or trunks in the end office group. The revised report will serve as the basis for future billing, where applicable, and will be effective on the next bill date. No prorating or back billing will be done based on such revised report.
 - (h) Effective on the first of January, April, July and October of each year, the customer shall update its interstate and intrastate jurisdictional report. The customer shall forward to the Telephone Company, to be received no later than fifteen (15) days after the first of each such month, a revised report showing the interstate and intrastate percentage of use for the past three months ending the last day of December, March, June and September, respectively, for each service arranged for joint interstate and intrastate use. Such revised report will serve as the basis for the next three month's billing for determining the jurisdiction for Switched Access Services in cases where the Telephone Company does not have sufficient call detail to do so and will be effective on the bill date for that service. No prorating or back billing will be done based on the revised report.

If the customer does not supply the revised reports, the Telephone Company will assume the percentages to be the same as those provided in the last quarterly report. For those cases in which a quarterly report has never been received from the customer, the Telephone Company will assume the percentages to be the same as those provided in the customer's order for service or as developed by the Telephone Company as specified in (2)(a), above.

- 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)
 - (3) Maintenance of Customer Records
 - The customer shall retain for a minimum of six (6) (a) months call detail records that substantiate the interstate percent provided to the Telephone Company as set forth in (2), above, for Switched Access Services. records shall consist of (i) and (ii), below, if applicable.
 - All call detail records such as work papers (i) and/or backup documentation including paper, magnetic tapes or any other form of records for billed customer traffic, call information including call terminating address (i.e., called number), the call duration, all originating and terminating trunk groups or access lines over which the call is routed, and the point at which the call enters the customer's network, and;
 - (ii) If the customer has a mechanized system in place that calculated the PIU, then a description of that system and the methodology used to calculate the PIU must be furnished and any other pertinent information (such as but not limited to flowcharts, source code, etc.) relating to such system must also be made available.

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- 2. <u>General Regulations</u> (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)
 - (C) <u>Jurisdictional Reports Switched Access</u> (Cont'd)
 - (4) Disputes Involving Jurisdictional Reports Switched Access
 - (a) If a billing dispute arises or if a regulatory commission questions the projected PIU factor(s) provided by the customer, the Telephone Company may, by written request, require the customer to provide the data the customer used to determine the projected PIU factor(s). This written request will be considered the initiation of the audit. The customer shall supply the data to an independent auditor or the Telephone Company within thirty (30) days of the Telephone Company request.

The customer shall keep records of call detail from which the percentage of interstate and intrastate use can be ascertained as set forth in (3), above, and upon request of the Telephone Company make the records available for inspection at an agreed upon location during normal business hours as reasonably necessary for purposes of verification of the percentages. The Telephone Company will audit data from one quarter unless a longer period is requested by the customer and agreed to by the Telephone Company.

(b) If the customer does not provide the requested data to the Telephone Company or independent auditor within thirty (30) days of the notice of audit, the customer will be in violation of the tariff and subject to the provisions specified in Section 2.1.8(A), preceding

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 Jurisdictional Report and Certification Requirements (Cont'd)
 - (C) Jurisdictional Reports Switched Access (Cont'd)
 - (4) <u>Disputes Involving Jurisdictional Reports Switched Access</u> (Cont'd)
 - (c) Audits may be conducted by: (1) the Telephone Company when the customer agrees; (2) an independent auditor under contract to the Telephone Company; (3) a mutually agreed upon independent auditor paid for equally by the customer and the Telephone Company; or (4) an independent auditor selected and paid for by the customer. If the customer selects option (4), where it pays for its own independent audit, the selected auditor must certify that the audit was performed following Commission procedures for measuring interstate traffic as established by Commission Order, and provide the Telephone Company a report with supporting documentation to verify such procedures.
 - (d) Verification audits may be conducted no more frequently than once per year except in extreme circumstances. The Telephone Company and customer will attempt to limit the audit to a reasonable time to effectively complete the audit. The Telephone Company and customer shall respond promptly to requests generated during the audit to ensure timely completion of the audit.
 - (e) When a PIU audit is conducted by the Telephone Company or an independent auditor under contract to the Telephone Company, the audit results will be furnished to the customer by Certified U.S. Mail. When a PIU audit is conducted by an independent auditor selected by the customer, the audit results will be furnished to the Telephone Company by Certified U.S. Mail. The Telephone Company will adjust the customer's PIU based upon the audit results.

- 2. General Regulations (Cont'd)
 - 2.3 <u>Obligations of the Customer</u> (Cont'd)
 - 2.3.11 <u>Jurisdictional Report and Certification Requirements</u> (Cont'd)
 - (C) Jurisdictional Reports Switched Access (Cont'd)
 - (4) <u>Disputes Involving Jurisdictional Reports Switched Access</u> (Cont'd)
 - (e) (Cont'd)

The PIU resulting from the audit shall be applied to the customer's usage for the quarter the audit is completed, the usage for the quarter prior to the completion of the audit, and the usage for the two (2) quarters following the completion of the audit. After that time, the customer may report revised PIU pursuant to (2)(g) or (h), above. If the revised PIU submitted by the customer represents a deviation of five (5) percentage points or more from the audited PIU, and that deviation is not due to identifiable reasons, the provisions in (4) (a), above, may be applied.

- (f) Both credit and debit adjustments will be made to the customer's interstate and intrastate access charges based on the audit results for the specified periods to accurately reflect the interstate and intrastate usage for the customer's account consistent with Section 2.4.1, following.
- (g) If, as a result of an audit conducted by an independent auditor, a customer is found to have over-stated its PIU(s) by twenty (20) percentage points or more, the Telephone Company shall require reimbursement from the customer for the cost of the audit. Such bill(s) shall be due and paid in immediately available funds within 30 days from receipt and shall carry a late payment penalty as set forth in Section 2.4.1, following, if not paid within the 30 days.

2. General Regulations (Cont'd)

2.3 <u>Obligations of the Customer</u> (Cont'd)

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

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 PIU factor(s) provided by the customer or developed by the Telephone Company as set forth in Section 2.3.11(C)(2), preceding, will serve as the basis for prorating the charges unless the Telephone Company is billing according to sufficient call details as set forth in Section 2.3.11(C)(1)(b), preceding. The percentage of a Switched Access Service to be charged as interstate is applied in the following manner:

(A) Monthly and Nonrecurring Charges

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

(B) <u>Usage Sensitive Charges</u>

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

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 that has a proven history of late payments to the Telephone Company or that does not have established credit to make a deposit as a guarantee of the payment of rates and charges. Such deposit may be required prior to establishing a service or at any time after the provision of a service to the customer. For purposes of this section, a proven history of late payments is defined as two (2) or more occasions within the preceding twelve (12) months in which payment for undisputed charges was not received within three (3) business days following the payment due date, provided the outstanding undisputed amount of each such individual unpaid bill represented at least ten (10) percent of the total charges on that individual bill. The Telephone Company will provide notice via overnight delivery to the person designated by the customer to receive such notice of the requirement to pay a deposit. The customer will be required to make payment of such deposit prior to the provision of service in those cases where the customer has not established credit with the Telephone Company, or otherwise within fifteen (15) business days of such notice. Such notice period will start the day after the notice is sent by overnight delivery.

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. For new service(s) being established, such deposit will not exceed the estimated rates and charges for a two-month period. For existing service(s), such deposit will not exceed the actual rates and charges for a two-month period associated with each individual bill that met the criteria for late payments above. 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.

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

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

(A) <u>Deposits</u> (Cont'd)

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) <u>Bill Dates</u>

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 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) Bill Dates (Cont'd)
 - (1) End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription, and Access Recovery Charge

For End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription Service, and Access Recovery Charge, 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, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, and Access Recovery Charge charges for the ensuing billing period, except for End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, and Access Recovery Charge for the Federal Government which will be billed in arrears. Any applicable PIC Change Charges, any known unbilled charges for prior periods and any known unbilled adjustments for prior periods for End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription Service, and Access Recovery Charge will be applied to this bill. Such bills are due when rendered.

- 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) Bill Dates (Cont'd)
 - (2) <u>Services Other Than End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription, and Access Recovery Charge</u>

For Services other than End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription Service, and Access Recovery Charge, the Telephone Company will establish a bill day each month for each customer account or advise the customer in writing of an alternate billing schedule. Alternate billing schedules shall not be established on less than 60 days' notice or initiated by the Telephone Company more than twice in any consecutive 12 month period.

The bill will cover non-usage sensitive service charges for the ensuing billing period for which the bill is rendered, any known unbilled non-usage sensitive charges for prior periods and unbilled usage charges for the period after the last bill day 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.

- (C) Payment Dates and Late Payment Penalties
 - (1) All bills dated as set forth in (B)(2), preceding, for service other than End User Access Service, Federal Universal Service Charge, ISDN Line Ports, DS1 Line Port, Presubscription Service, and Access Recovery Charge 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

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)

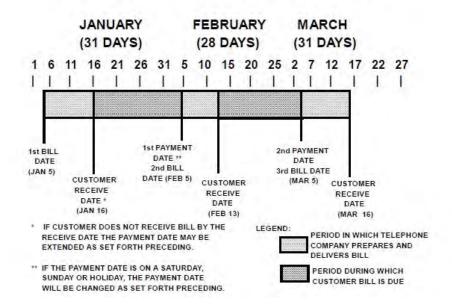
(1) (Cont'd)

When the bill has been delayed, upon request of the customer the due date will be extended by the number of days the bill was delayed. Such request of the customer must be accompanied with proof of late bill receipt.

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

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

EXAMPLE: CALCULATION OF PAYMENT DATES



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Issued: June 16, 2016 Effective: July 1, 2016

- 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 lessor 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) 0.000292 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>Billing Disputes</u>

- (1) A good faith dispute requires the customer to provide a written claim to the Telephone Company. Instructions for submitting a dispute can be obtained by calling the billing inquiry number shown on the customer's bill, or, when available, by accessing the information on the Telephone Company's website, also shown on the customer's bill. Such a claim must identify, in detail, the basis for the dispute, and if the customer withholds the disputed amounts, it must identify the account number under which the bill is rendered, the date of the bill, and the specific items on the bill being disputed to permit the Telephone Company to investigate the merits of the dispute.
- (2) The date of the dispute shall be the date on which the customer furnishes the Telephone Company the account information required in (D)(1), above.

- 2. General Regulations (Cont'd)
 - 2.4 Payment Arrangements and Credit Allowances (Cont'd)
 - 2.4.1 Payment of Rates, Charges and Deposits (Cont'd)
 - (D) Billing Disputes (Cont'd)
 - (3) The date of resolution is the date the Telephone Company completes its investigation, provides written notice to the customer regarding the disposition of the claim, (i.e., resolved in favor of the customer or resolved in favor of the Telephone Company), and credits the customer's account, if applicable.
 - (4) In the event that a billing dispute, concerning any charges billed to the customer by the Telephone Company, is resolved in favor of the Telephone Company, any payments withheld, pending settlement of the dispute, shall be subject to the late payment penalty set forth in (C)(2), above.
 - (5) If the customer pays the bill in full by the payment due date, and later initiates a billing dispute within ninety (90) days of the payment due date, penalty interest may be applicable.
 - (a) If the billing dispute is resolved in favor of the customer, the customer shall receive a credit from the Telephone Company. This credit will be an amount equal to the disputed amount resolved in the customer's favor times a penalty factor. This amount will apply from the date of the customer's payment through the date on which the customer receives the disputed amount credit from the Telephone Company. The penalty factor shall be the lessor of:
 - (i) 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
 - (ii) 0.000292 per day, compounded daily for the number of days from the first date to and including the last date of the period involved.
 - (b) If the dispute is resolved in favor of the Telephone Company, neither a late payment charge nor a penalty interest charge is applicable.

- 2. <u>General Regulations</u> (Cont'd)
 - 2.4 Payment Arrangements and Credit Allowances (Cont'd)
 - 2.4.1 Payment of Rates, Charges and Deposits (Cont'd)
 - (D) Billing Disputes (Cont'd)
 - (6) If the customer pays the bill in full by the payment due date, and later initiates a billing dispute <u>after</u> ninety (90) days of the payment due date, penalty interest may be applicable.
 - (a) If the billing dispute is resolved in favor of the customer, the customer shall receive a credit from the Telephone Company. This credit will be an amount equal to the disputed amount resolved in the customer's favor times a penalty factor. This amount will apply from the date of dispute through the date on which the customer receives the disputed amount credit from the Telephone Company. The penalty factor shall be the lessor of:
 - (i) 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
 - (ii) 0.000292 per day, compounded daily for the number of days from the first date to and including the last date of the period involved.
 - (b) If the dispute is resolved in favor of the Telephone Company, neither a late payment charge nor a penalty interest charge is applicable.

(E) <u>Proration of Charges</u>

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

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)

(F) Rounding of Charges

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

2.4.2 Minimum Periods

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

- Switched Access usage rated services
- Switched Access High Capacity DS3 Entrance Facility and Direct Trunked Transport
- Switched Access Synchronous Optical Channel OC3 and OC12 Entrance Facility and Direct Trunked Transport
- Ethernet Switched Access Local Transport Entrance Facility and Direct Trunked Transport
- Special Access Part-time Video
- Special Access Program Audio
- Special Access Synchronous Optical Channel Service
- Frame Relay Access Service
- Asynchronous Transfer Mode Cell Relay Access Service Ports
- Ethernet Transport Service
- Internet Protocol Gateway Access Service

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 (ICB) as set forth in Section 12, following, is one month unless a different minimum period is established with the individual case filing.

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

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.2 Minimum Periods (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 Special Access High Capacity Service, Special Access Synchronous Optical Channel Service, and Frame Relay Access Service Optional Rate Plans, as set forth in Sections 7.2.8 and 16.1.3, following, the applicable charge will be the lesser of (1) the Telephone Company's total non-recoverable costs less the net salvage value for the discontinued service or (2) the total monthly charges, at the rate level in effect at the time service is discontinued, for the remainder of the minimum period.

2.4.3 Cancellation of an Order for Service

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

2.4.4 <u>Credit Allowance for Service Interruptions</u>

(A) General

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this tariff or in the event that the protective controls applied by the Telephone Company result in the complete loss of service by the customer as set forth in Section 6.2.1, following. An interruption period starts when an inoperative service is reported to the Telephone Company, and ends when the service is operative.

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

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

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

- Digital Data (DA1 through DA6)
- High Capacity (DS1)
- Synchronous Optical Channel Service (OB, OD)

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, 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</u> flat rated Switched Access Service rate elements

Except as provided for in Section 6.10.3(E), following, for Ethernet Switched Access Local Transport Real Time Class of Service/Quality of Service and Section 16.3.4(A)(3), following, for Ethernet Transport Service Real Time Class of Service/Quality of Service, for Special Access Services other than Program Audio and Video Services, for flat rated Switched Access Service rate elements (i.e., Entrance Facility, Direct Trunked Transport, Multiplexing, Add/Drop Multiplexing, Customer Node, and Customer Premises Port), 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.

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)

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

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 designated premises, channel mileage and optional features and functions).

(c) Multiplexed Services

For multiplexed services, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service that is inoperative. When the facility which is multiplexed or the multiplexer itself is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with the service to the hub and any individual services from the hub. For Special Access, those charges include Channel Termination, Channel Mileage, and optional features and functions. For Switched Access, those charges include Entrance Facility, Direct Trunked Transport, Multiplexing and optional features and functions such as Add/Drop Multiplexing, Customer Node and Customer Premises Port.

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

When the service which rides a channel of the multiplexed facility is inoperative, the monthly charge shall be the total of all the monthly rate element charges associated with that portion of the service from the hub, or wire center equipped for Add/Drop Multiplexing, to a customer premises, Telephone Company central office, WATS office, or Public Packet Data Network Service.

(d) Flat rated Switched Access rate elements

Except as provided for in Section 6.10.3(E), following, for Ethernet Switched Access Local Transport Real Time Class of Service/Quality of Service, 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) Public Packet Data Network Services

Except as provided for in Section 16.3.4(A)(3), following, for Ethernet Transport Service Real Time Class of Service/Quality of Service, for Public Packet Data Network Services rate elements, the monthly charge shall be the total of all the monthly rate element charges associated with the services.

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

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 Usage Rated Elements

For Switched Access 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) Credit Allowances Cannot Exceed Monthly Rate

The credit allowance(s) for an interruption or for a series of interruptions shall not exceed any monthly rate 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.

(x)

(x)

ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit <u>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, Inc. 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 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) <u>Temporary Surrender of a Service</u>

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.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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Issued: June 16, 2016 Effective: July 1, 2016

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

Nonrecurring 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) <u>Nonrecurring Charges Apply</u>

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 companies will notify the customer in writing of the billing method being used. The customer will place the order for the service as set forth in Section 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 Section 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.

(B) <u>Meet Point Billing</u>

Meet Point Billing is required when an access service is provided by multiple telephone companies for Feature Groups B, C, and D Switched Access Services 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 a copy of the order from the customer as specified in Section 5.3.2, following, and arrange to provide the service.

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 (Cont'd)

For usage rated access services, the access minutes of use will be determined by each company. A company without recording capability may obtain detailed access usage records from the recording company to develop its 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, and for WATS usage the Bill Rendering Company is normally the WATS Serving Office. 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 the Single Bll option cannot 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:

- 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.

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 (Cont'd)

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 identify the other telephone company(s) providing service (when applicable) and include cross reference(s) to 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 two billing alternatives:

- Single Bill/Multiple Tariff, and
- Single Bill/Single Tariff

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

(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;

- 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) <u>Meet Point Billing</u> (Cont'd)
 - (1) <u>Single Bill Option</u> (Cont'd)
 - (a) <u>Single Bill/Multiple Tariff</u> (Cont'd)
 - 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.
 - (b) <u>Single Bill/Single Tariff</u>

The Single Bill/Single Tariff bill provides a meet point bill that is billed completely at the Bill 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. 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)
 - (2) <u>Multiple Bill Option</u>

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.

Each company will:

- prepare its own bill;
- determine its charge(s) for Local 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; and
- forward its bill to the customer.

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

(3) <u>Determination of Meet Point Billed Local Transport and Channel</u> Mileage Charges

Except as specified in (k), below, for Ethernet Switched Access Local Transport, each telephone company's portion of the Local 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 Sections 6.4.6 and 7.2.5, following.

(x)

(x)

(C)

ACCESS SERVICE

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 and Channel</u> Mileage Charges (Cont'd)
 - (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*: (C)
 - 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 rate;* and
 - multiply the Tandem Switched Termination rate* (C) times the number of originating and terminating access minutes routed over the facility.
 - When a tandem office is located within the operating territory of the 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 Section 6.1.3(A), following. The Switched Access Nonrecurring Charges are applied as set forth in Section 6.4.1(B), following. (Note: The BP is not applied to the Switched Access Tandem Switched Termination rate or any Nonrecurring Charge.)

- * As of July 1, 2021, the Joint Tandem Switched Transport rate element is applied per tandem to originating toll free minutes only, as set forth in Section 6.1.3(A)(3), following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 31

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- 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 and Channel</u> Mileage Charges (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 as set forth in Section 6.1.3(A), following. The Switched Access Nonrecurring Charges are applied as set forth in Section 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 Entrance Facility and/or Multiplexing equipment is located within the operating territory of the Telephone Company, the Entrance Facility and/or Multiplexing charge will apply.
 - The Billing Percentage (BP) is not applicable to the Entrance Facility and Multiplexer charges.

- 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 and Channel</u> Mileage Charges (Cont'd)
 - (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 and add the Channel Mileage Termination rate.

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

- (g) Reserved for Future Use.
- (h) When three or more telephone companies are involved in providing an Access Service, the intermediate telephone company(s) will determine the 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).

* As of July 1, 2021, the Joint Tandem Switched Transport rate element is applied per tandem to originating toll free minutes only, as set forth in Section 6.1.3(A)(3), following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements.

(N)

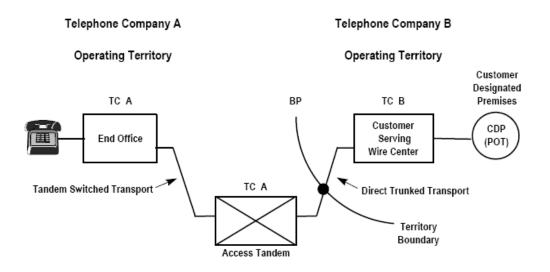
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(C)

- 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 and Channel</u> Mileage Charges (Cont'd)
 - (i) Example 1 Switched Access

Layout

- Feature Group D Switched Access is ordered to End Office.
- End Office and Access Tandem are in the operating territory of Telephone Company A (TC-A)
- Customer Designated Premises is in the operating territory of Telephone Company B (TC-B)



BP = Billing Percentage

- 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) <u>Meet Point Billing</u> (Cont'd)
 - (3) <u>Determination of Meet Point Billed Local Transport and Channel</u> Mileage Charges (Cont'd)
 - (i) Example 1 Switched Access (Cont'd)

The following example reflects the rate calculations for Telephone Company A. Rates for Telephone Company B would appear in that company's access tariff.

- Assume:

End Office to Access Tandem:

Airline miles from TC-A End Office to TC-A Access Tandem = 22.1,

Rounded = 23

Access Tandem to Serving Wire Center:

Airline miles from TC-A Access Tandem to TC-

B Serving Wire Center = 25.6,

Rounded = 26

Billing Percentage (BP):

TC-A = 40%

TC-B = 60%

Access Minutes = 9.000

End Office Charges = EO

Tandem Switched Facility Rate = TSF

Tandem Switched Termination Rate = TST

Tandem Switching Rate = TS

Joint Tandem Switched Transport Rate = JTST (N)

Direct Trunked Facility Rate = DTF

Direct Trunked Termination Rate = DTT

- 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) <u>Meet Point Billing</u> (Cont'd)
 - (3) <u>Determination of Meet Point Billed Local Transport and Channel</u> Mileage Charges (Cont'd)
 - (i) Example 1 Switched Access (Cont'd)
 - Telephone Company A charges are:

End Office charges*
= 9,000 MOU x EO rates

Tandem Switched Facility charge*
= 9.000 MOU x 23 miles x TSF rate

Tandem Switched Termination charge* (C) = 2 terminations x 9.000 MOU x TST rate

Tandem Switching charge* (C) = 9,000 MOU x TS rate

Direct Trunked Facility charge = 26 miles x DTF rate x 40%

Direct Trunked Termination charge = 1 termination x DTT rate

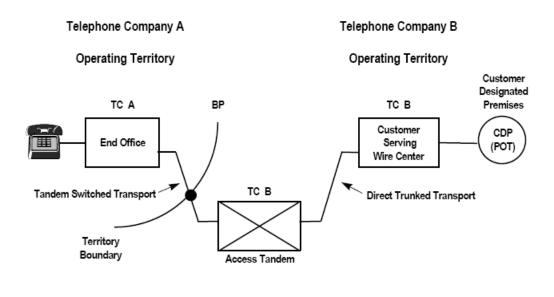
(N) | | | | |

^{*} As of July 1, 2021, for originating toll free minutes only, and office rate elements (i.e., Local Switching and information Surcharge) are listed in Section 17.2.3(A) and (B), following, and the Joint Tandem Switched Transport rate element in Section 17.2.2, following, is applied per tandem as set forth in Section 6.1.3(A), following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements.

- 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 and Channel</u> Mileage Charges (Cont'd)
 - (j) Example 2 Switched Access

Layout

- Feature Group D Switched Access is ordered to End Office.
- End Office is in the operating territory of Telephone Company A (TC-A)
- Access Tandem and Customer Designated Premises are in the operating territory of Telephone Company B (TC-B)



BP = Billing Percentage

- 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) <u>Meet Point Billing</u> (Cont'd)
 - (3) <u>Determination of Meet Point Billed Local Transport and Channel</u> Mileage Charges (Cont'd)
 - (j) <u>Example 2 Switched Access</u> (Cont'd)

The following example reflects the rate calculations for Telephone Company A. Rates for Telephone Company B would appear in that company's access tariff.

- Assume:

End Office to Access Tandem:

Airline miles from TC-A End Office to TC-B Access Tandem = 22.1,

Rounded = 23

Billing Percentage (BP):

TC-A = 80%

TC-B = 20%

Access Tandem to Serving Wire Center:

Airline miles from TC-B Access Tandem to TC-B Serving Wire Center = 25.6,

Rounded = 26

Access Minutes = 9.000

End Office Charges* = EO (C)

Tandem Switched Facility Rate* = TSF (C)

Tandem Switched Termination Rate* = TST (C)

Tandem Switching Rate* = TS (C)

Direct Trunked Facility Rate = DTF

Direct Trunked Termination Rate = DTT

* For TC B company originating toll free minutes only, separate end office rates would apply and a different rate element would apply per tandem in lieu of Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate element as of July 1, 2021.

(N) (N)

Effective: July 1, 2021

Transmittal No. 31

Issued: June 16, 2021

- 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)
 - Meet Point Billing (Cont'd) (B)
 - (3) <u>Determination of Meet Point Billed Local Transport and Channel</u> Mileage Charges (Cont'd)
 - (j) Example 2 – Switched Access (Cont'd)
 - Telephone Company A charges are:

End Office charges* (C) = 9,000 MOU x EO rates

Tandem Switched Facility charge* (C) = 9.000 MOU x 23 miles x TSF rate x 80%

Tandem Switched Termination charge* (C) = 1 termination x 9.000 MOU x TST rate

- (k) For Ethernet Switched Access Local Transport (ESALT):
 - When ESALT is jointly provided with a telephone company in an adjacent operating territory, each of the two telephone companies involved (i.e., the company with the ESALT SWC and the company with the SWC serving the customer designated premises) will bill one ESALT Direct Trunked Termination (ESALT DTT) monthly rate element, one ESALT Direct Trunked Facility-E2 (ESALT DTF-E2) monthly rate element, one ESALT DTT nonrecurring charge and one Access Order Charge. The company with the SWC serving the customer designated premises will also bill the customer the applicable monthly and nonrecurring charges for the ESALT Entrance Facility (ESALT EF) rate element.

Transmittal No. 31

Issued: June 16, 2021

(N) (N)

^{*} As of July 1, 2021, for originating toll free minutes only, and office rate elements (i.e., Local Switching and information Surcharge) are listed in Section 17.2.3(A) and (B), following, and the Joint Tandem Switched Transport rate element in Section 17.2.2, following, is applied per tandem as set forth in Section 6.1.3(A), following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements.

- 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 and Channel Mileage Charges</u> (Cont'd)
 - (k) For Ethernet Switched Access Local Transport (ESALT): (Cont'd)
 - When ESALT is jointly provided with a telephone company in a non-adjacent operating territory and the airline distance between the ESALT SWC and the SWC serving the customer designated premises is 50 airlines miles or less as measured using the V&H coordinates method, each of the two telephone companies involved (i.e., the company with the ESALT SWC and the company with the SWC serving the customer designated premises) will bill one ESALT DTT monthly rate element, one ESALT DTF-E3 monthly rate element, one ESALT DTT nonrecurring charge and one Access Order Charge. The company with the SWC serving the customer designated premises will also bill the customer the applicable monthly and nonrecurring charges for the ESALT EF rate element.
 - When ESALT is jointly provided with a telephone company in a non-adjacent operating territory and the airline distance between the ESALT SWC and the SWC serving the customer designated premises is between 51 and 75 airlines miles as measured using the V&H coordinates method, each of the two telephone companies involved (i.e., the company with the ESALT SWC and the company with the SWC serving the customer designated premises) will bill one ESALT DTT monthly rate element, one ESALT DTF-E4 monthly rate element, one ESALT DTT nonrecurring charge and one Access Order Charge. The company with the SWC serving the customer designated premises will also bill the customer the applicable monthly and nonrecurring charges for the ESALT EF rate element.

Transmittal No. 1

Issued: June 16, 2016 Effective: July 1, 2016

- 2. General Regulations (Cont'd)
 - 2.4 <u>Payment Arrangements and Credit Allowances</u> (Cont'd)
 - 2.4.7 Access Services Provided By More Than One Telephone Company (Cont'd)
 - (B) <u>Meet Point Billing</u> (Cont'd)
 - (3) <u>Determination of Meet Point Billed Local Transport and Channel Mileage Charges</u> (Cont'd)
 - (k) For Ethernet Switched Access Local Transport (ESALT): (Cont'd)

The applicable monthly and nonrecurring charges will be based on the ESALT bandwidth capacity ordered by the customer.

When required, charges for Tandem Switched Transport mileage between the ESALT SWC and end office(s) will be determined based on the provisions in (a) through (c) above.

2.5 Connections

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 Services furnished by the Telephone Company where such connection is made in accordance with the provisions specified in Technical Reference Publication AS No.1 and in Section 2.1, preceding.

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(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

2. General Regulations (Cont'd)

2.6 Definitions

Certain terms used herein are defined as follows:



800 Series

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

Access Code

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

Access Minutes

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

Access Tandem

The term "Access Tandem" denotes a telephone company switching system that provides a concentration and distribution function for originating or terminating traffic between end offices and a customer designated premises.

Certain material formerly found on this page now appears on 1st Revised Page 2-82.

2. <u>General Regulations</u> (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.).

Advanced Intelligent Network (AIN)

The term "Advanced Intelligent Network (AIN)" denotes a telecommunications network architecture that uses databases to facilitate call processing, call routing, and network management, allowing carriers to change the routing of both inbound and outbound calls from moment to moment.

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 intrastate 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.

Asymmetric Digital Subscriber Line (ADSL)

The term "Asymmetric Digital Subscriber Line (ADSL)" denotes an access technology that allows voice and high speed data to be sent simultaneously over local exchange service facilities. ADSL supports transmission of data signals at a different speed when receiving data (downstream rate) than when send data (upstream rate).

Asynchronous Transfer Mode (ATM)

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Attenuation Distortion

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

Automatic Number Identification (ANI)

The term "Automatic Number Identification (ANI)" denotes the Multi-Frequency (MF) signaling parameter that identifies the billing number of the calling party.

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.

Bearer Channel

The term "Bearer Channel" denotes a basic communications channel with no enhanced or value-added service included other than the bandwidth transmission capability provided with the channel.

<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 the Title pages preceding.

2. <u>General Regulations</u> (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 access minutes the customer expects to be handled in an end office switch during any hour in an 8:00 a.m. to 11:00 p.m. period for the Feature Group ordered. This customer specified BHMC quantity is the input data the Telephone Company uses to determine the number of transmission paths for the Feature Group ordered.

Call

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

Calling Party Number (CPN)

The term "Calling Party Number (CPN)" denotes the SS7 signaling parameter that identifies the subscriber line number of directory number of the calling party.

Carrier Identification Code (CIC)

The term "Carrier Identification Code (CIC)" denotes a numeric code assigned by the North American Numbering Plan (NANP) Administrator for the provisioning of Feature Group B or D Switched Access Services. The numeric code is unique to each carrier and is used by the telephone company to route switched access traffic to the Customer Designated Premises.

Carrier or Common Carrier

See Interexchange Carrier.

CCS

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

Cell

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

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

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.

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 band-width or lower speed channels.

Charge Number (CN)

The term "Charge Number (CN)" denotes the SS7 signaling parameter that identifies the billing telephone number of the calling party.

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.

2. General Regulations (Cont'd)

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

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 (CCS)

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.

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 tariff 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 tariff. 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.

2. General Regulations (Cont'd)

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

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 End Users, Interexchange Carriers (ICs), and other telecommunications carriers or providers originating or terminating Toll VoIP-PSTN Traffic.

Customer Node

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

Customer Designated Premises

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

Data Transmission (107 Type) Test Line

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

Decibel

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

Decibel Reference Noise C-Message Weighting

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

Decibel Reference Noise C-Message Referenced to 0

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

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

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

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 Subscriber Line (DSL)

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

Digital Switched 56 Service

The term "Digital Switched 56 Service" denotes a switched access optional feature, available with Feature Group C and D Access, which provides for data transmission at up to 56 Kilobits per second.

Direct Trunked Transport

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

Dual Tone 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.

2. General Regulations (Cont'd)

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

Echo Return Loss

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

Effective 2-Wire

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

Effective 4-Wire

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

End Office

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 telecommunications service that is not a carrier, except that a carrier other than the 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.

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(x)

ACCESS SERVICE

2. General Regulations (Cont'd)

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

Enhanced Service

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

Entrance Facility

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

Entry Switch

See First Point of Switching.

Envelope Delay Distortion

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

Equal Level Echo Path Loss (ELEPL)

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

Ethernet

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

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

Issued: June 16, 2016 Effective: July 1, 2016

2. General Regulations (Cont'd)

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

Exchange

The term "Exchange" denotes a unit generally smaller than a local access and transport area, established by the telephone company for the administration of communications service in a specified area which usually embraces a city, town or village and its environs. It consists of one or more central offices together with the associated facilities used in furnishing communications service within 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 a telephone company's tandem switch to mark the Carrier Connect Time when a 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 specified 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 Telephone Company's frame relay network with a port on another interconnected Telephone Company's frame relay network.

First Point of Switching

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

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

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

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 Connection

The term "Frame Relay Access Connection" denotes the physical facility, including the associated port, between the end user's data terminal equipment and the Telephone Company's frame relay switch.

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 customer premises equipment for the purpose of connecting to an interstate frame relay 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 specifies how a frame relay switch sends and receives data from a frame relay end user customer's LAN or other compatible CPE devices.

Frame Relay Inter-network Connection

The term "Frame Relay Inter-network Connection" denotes the physical facility, including the associated port, between the access customer's frame relay network and the Telephone Company's frame relay switch.

Frame Relay Inter-network Customer Port

The term "Frame Relay Inter-network Customer Port" denotes the physical location in the Telephone Company switching office 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.

2. General Regulations (Cont'd)

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

Frequency Shift

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

Grandfathered

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

(x) (x)

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.

Hub

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

Immediately Available Funds

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

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.

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2. General Regulations (Cont'd)

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

Impulse Noise

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

Individual Case Basis (ICB)

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

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.

Installations 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 designated premises.

Interexchange Carrier (IC) or Interexchange Common Carrier

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

2. General Regulations (Cont'd)

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

Intermediate Hub

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

Intermodulation Distortion

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

Internet Protocol (IP) Signaling

The term "Internet Protocol (IP) Signaling" denotes a packet data-oriented protocol used for communicating call signaling information.

Interstate Communications

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

Intrastate Communications

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

Joint Tandem Switched Transport

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

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

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

<u>Legal Holiday</u> (M)

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.

Certain material currently on this page previously appeared on Original Page 2-73.

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

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

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 Number Portability (LNP)

The term "Local Number Portability (LNP)" denotes the ability of an end user of local exchange telecommunications service to retain an existing telephone number without impairment of quality, reliability, or convenience when switching from one local exchange telecommunications carrier to another.

Location Routing Number (LRN)

The term "Location Routing Number (LRN)" denotes a unique NPA-NXX-XXXX that serves as a routing number associated with a central office switch that has subscribers that have transferred their telephone numbers from one local exchange telecommunications carrier to another.

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.

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.

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

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

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.

MultiFrequency (MF) Signaling

The term "MultiFrequency (MF) Signaling" denotes an in-band signaling method in which call signaling information is transmitted between network switches using the same voice-band channel used for voice.

N-1 Carrier

The term "N-1 Carrier" denotes the telecommunications carrier, prior to the terminating carrier, responsible for querying an LNP database to determine the routing of a call for a number portable NXX code.

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.

2. General Regulations (Cont'd)

2.6 Definitions (Cont'd)

Off-hook

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

On-hook

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

Open Circuit Test Line

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

Optical Carrier Channel

The term "Optical Carrier Channel" denotes the high speed optical 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 (OC-N)" 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 Carrier Rate Concatenated

The term "Optical Carrier Rate Concatenated" denotes the transmission of a combined signal formed by linking together multiple individual signals.

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 a Customer's Premises.

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

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

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.

Permanent Virtual Connection (PVC)

The term "Permanent Virtual Connection (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.

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ACCESS SERVICE

2. General Regulations (Cont'd)

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

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.

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 (CPE) which complies with and has been approved within the Registration Provisions of Part 68 of the F.C.C.'s Rules and Regulations.

Service Access Code

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

Service Switching Point (SSP)

The term "Service Switching Point (SSP)" 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.

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2. General Regulations (Cont'd)

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

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.

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.

Signaling Point (SP)

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

2. General Regulations (Cont'd)

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

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 voice-band (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.

Special Order

The term "Special Order" denotes an order for a Billing and Collection Service.

Standard PVC

The term "Standard PVC" denotes the connection of ports within the same Telephone Company frame relay nework.

Study Area

The term "Study Area" denotes a geographic area within a state in which a Telephone Company operates. This geographic area normally does not cross state lines.

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. General Regulations (Cont'd)

2.6 <u>Definitions</u> (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.

Symmetric Digital Subscriber Line (SDSL)

The term "Symmetric Digital Subscriber Line (SDSL)" denotes an access technology that allows high speed data to be sent over local exchange service facilities. SDSL supports the transmission of data signals at the same speed when receiving data (downstream rate) and transmitting data (upstream rate).

Synchronous Optical Network (SONET)

The term "Synchronous Optical Network (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 (STS)" 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.)

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ACCESS SERVICE

2. General Regulations (Cont'd)

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

Tandem Switched Transport

The term "Tandem Switched Transport" denotes transport 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 a Customer's Premises to an End User Premises.

Terminus Hub

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

Throughput

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

Toll Free Database Access Service

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

Toll VoIP-PSTN Traffic

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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.

Certain material currently on this page previously appeared on Original Page 2-59. Certain material formerly found on this page now appears on Original 2-82.1

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

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

Transmission Measuring (105 Type) Test Line/Responder

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

Transmission Path

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

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Certain material currently on this page previously appeared on Original Page 2-82.

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

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

Trunk

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

Trunk Group

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

Trunk Side Connection

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

Two-Wire to Four-Wire Conversion

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

V and H Coordinates Method

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

WATS Serving Office

The term "WATS Serving Office" denotes a 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 (WSC)

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 telephone 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. Federal Universal Service Charge, ISDN Line Ports, DS1 Line Ports, and Consumer Broadband-Only Loop Charge
 - 3.1 Reserved for Future Use
 - 3.2 Reserved for Future Use
 - 3.3 Reserved for Future Use
 - 3.4 Reserved for Future Use
 - 3.5 Reserved for Future Use
 - 3.6 Reserved for Future Use
 - 3.7 <u>Reserved for Future Use</u>
 - 3.8 Reserved for Future Use
 - 3.9 <u>Federal Universal Service Charge</u>

The Federal Universal Service Charge (FUSC) recovers the Telephone Company's contribution to various federal universal service funds. FUSC will be billed by only those Telephone Companies contributing to the universal service funds. The Telephone Company will apply a surcharge factor, each month, to the billed charges, for interstate access services, provided to end users from this Tariff.

FUSC will not apply to any billed charges, for an end user, when the interstate access service, provided to the end user, qualifies under the federal universal service guidelines for Lifeline Assistance. FUSC will not apply to interstate access services purchased by customers that resell these services to end users, as part of an interstate telecommunications service, and are required to contribute to the various federal universal service funds. In case of a dispute regarding whether the customer is reselling services and contributing to the various federal universal service funds, the Telephone Company may request a signed certification to that effect from the customer. FUSC will not apply to billed charges for ADSL Access Service Lines, SDSL Access Service Lines, Consumer Broadband-Only Loops, ATM-CRS DSL Virtual Circuit Channels, ATM-CRS Multimedia Virtual Circuit Channels, ETS MultiMedia Virtual Circuit Channels and ETS Low Bit Rate Virtual Circuit Channels used as inputs to a wireline Broadband Internet Access Service pursuant to the Federal Communications Commission's Order in WC Docket No. 17-206, adopted June 7, 2018 and released June 8, 2018 (FCC 18-75).

Certain material formerly found on this page now appears on Original Page 3-1.1

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ACCESS SERVICE

3. <u>Federal Universal Service Charge, ISDN Line Ports, DS1 Line Ports, and Consumer Broadband-Only Loop Charge</u> (Cont'd)

3.9 Federal Universal Service Charge

3.9.1 Rate Regulations

The Telephone Company will bill FUSC each month as described below. The FUSC Surcharge Factor and the Multiline Business End User Common Line (MLB EUCL) FUSC Surcharge Factor are set forth in Sections 17.1.3(A) and 17.1.3(B), following.

(A) FUSC Surcharge Factor

The Telephone Companies will multiply the FUSC Surcharge Factor, set forth in Section 17.1.3(A), following, against the end user's billed interstate access services charges.

(B) Reserved for Future Use

Certain material presently found on this page formerly appeared on appears on 1st Revised Page 3-1.

3. Federal Universal Service Charge, ISDN Line Ports, DS1 Line Ports, and Consumer Broadband-Only Loop Charge (Cont'd)

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3.10 **ISDN Line Ports**

When an end user is provided Integrated Services Digital Network (ISDN) Basic Rate Interface (BRI), and/or ISDN Primary Rate Interface (PRI), local exchange service by the Telephone Company, under the general or local exchange tariff, ISDN Line Port rates apply. ISDN Line Port rates recover the costs of ISDN line ports to the extent these costs exceed the cost of a line port used for basic, analog service.

When an end user temporarily suspends its local exchange service that is associated with ISDN BRI, and/or ISDN PRI, one-half of the ISDN Line Port rate, per month, will be temporarily suspended for the time period the local exchange service is suspended.

3.10.1 Rate Application

Rates for ISDN Line Ports are set forth in Section 17.1.4, following.

The monthly rate applies to each ISDN service arrangement ordered from the Telephone Company's general or local exchange tariff, as described below.

- The ISDN BRI Line Port rate applies to each ISDN BRI arrangement.
- The ISDN PRI Line Port rate applies to each ISDN PRI arrangement.

3.11 **DS1** Line Port

When an end user is provided a DS1 (1.544 Mbps) local exchange service by the Telephone Company, under the general and/or local exchange tariff(s), and where the end user provides the terminating channelization equipment, a DS1 Line Port rate will apply. The DS1 Line Port rate recovers the line port costs of the DS1 channel service to the extent these costs exceed the cost of a line port used for basic, analog service.

When an end user temporarily suspends its local exchange service that is associated with DS1 channel service, one-half of the DS1 Line Port rate, per month, will be temporarily suspended for the time period the local exchange service is suspended.

3.11.1 Rate Application

The DS1 Line Port rate is set forth in Section 17.1.5, following.

This monthly rate applies to each DS1 (1.544 Mbps) channel service ordered from the Telephone Company's general and/or local exchange tariff, where the end user provides the terminating channelization equipment.

3. Federal Universal Service Charge, ISDN Line Ports, DS1 Line Ports, and Consumer Broadband-Only Loop Charge (Cont'd)

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3.12 <u>Consumer Broadband-Only Loop Charge</u>

The Consumer Broadband-Only Loop (CBOL) Charge recovers the Telephone Company's loop-related costs when a Consumer Broadband-Only Loop Service is provided by the Telephone Company without voice telephone service.

The Telephone Companies listed in Section 17.7, following, will bill a CBOL Charge when the customer purchases a Consumer Broadband-Only Loop Service.

3.12.1 Rate Application

The monthly CBOL Charge rate applies to each data-only broadband access transmission service line ordered by the customer.

Rates for CBOL charges are set forth in Section 17.7 following.

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4. End User Access Service

The Telephone Company will provide End User Access Service (End User Access) to end users who obtain local exchange service from the Telephone Company under its general and/or local exchange tariffs.

4.1 General Description

End User Access provides for the use of an End User Common Line (EUCL).

4.2 <u>Limitations</u>

(A) Exclusions

Telephone number detail billing, directory listings and intercept arrangements are not included with End User Access.

(B) Lifeline Service

The Federal Lifeline Service program is designed to provide a credit to monthly end user access charges for qualifying low income residential subscribers. When a carrier is designated as an eligible telecommunications carrier for Lifeline Service and when an eligible residential end user qualifies for Lifeline Service in association with local residential exchange service of that carrier, the EUCL Residence rate, as set forth in Section 17.1.2(A), following, is waived.

4.3 Undertaking of the Telephone Company

The Telephone Company will provide End User Access at rates and charges, as set forth in Section 17.1.2, following, as follows:

- Use of an EUCL for interstate Access Services provided under this tariff. Such use will be provided when the end user obtains local exchange service.
- The Telephone Company will be responsible for contacts and arrangements with customers for the billing of End User Access charges.

4.4 Obligations of Radio Common Carriers

When the end user is a Radio Common Carrier (RCC), or provider of paging service, such end users shall designate whether the local exchange service, they are provided by the Telephone Company, is used as an access line for RCC or paging services, or used as an administrative line.

4. End User Access Service (Cont'd)

4.5 Payment Arrangements and Credit Allowances

4.5.1 Minimum Period

The minimum period for which EUCL End User Access is provided to an end user, and for which charges are applicable, is the same as that in the general and/or local exchange tariffs for the associated local exchange service.

4.5.2 <u>Cancellation of Orders</u>

End User Access is cancelled when the order for the associated local telephone exchange service is cancelled. No cancellation charges apply.

4.5.3 Changes to Orders

When changes are made to orders for the local exchange service associated with End User Access, any necessary changes will be made for End User Access. No charges will apply.

4.5.4 Allowance for Interruptions

When there is an interruption to an EUCL, requested End User Access credit allowances for interruptions will be provided, as set forth in credit allowance for interruptions in Section 2.4.4, preceding.

4.5.5 Temporary Suspension of Service

When an end user temporarily suspends its local exchange service that is associated with an EUCL, one-half of the monthly EUCL charge will be temporarily suspended for the time period the associated local exchange service is suspended.

4.6 <u>Rate Regulations</u>

4.6.1 Who is Billed

EUCL per month charges will be billed to the end user of the associated Local Exchange Service.

4.6.2 Multiparty Service

The EUCL charge for each multiparty subscriber shall be assessed as if the subscriber had subscribed to single-party service.

4. End User Access Service (Cont'd)

4.6 <u>Rate Regulations</u> (Cont'd)

4.6.3 Pay Telephone Service

The EUCL-Multiline Business rate will be assessed when a Payphone Service Provider obtains an exchange service line for the purposes of offering pay telephone service.

4.6.4 <u>Business Services</u>

(A) Single Line Service

When an end user is provided a single local business exchange service in a state, multiparty and centrex services included, and when the local business exchange service is provided under the general and/or local exchange or centrex service tariffs, the EUCL Single Line Business - Individual line or trunk rate, as set forth in Section 17.1.2(B), following, applies to each such business individual line or trunk. In the case of multiparty service, each party is deemed to be a user of an EUCL.

(B) Multiline Service

When an end user is provided more than one local business exchange service in a state, by the same Telephone Company, pay telephone, multiparty and centrex services included, and when the local exchange service is provided under the general and/or local exchange or centrex service tariffs, the EUCL-Multiline Business - Individual line or trunk rate, as set forth in Section 17.1.2(C), following, applies to each such Multiline Business individual line or trunk. In the case of multiparty service, each party is deemed to be a user of an EUCL.

(C) Centrex CO and Centrex CO-like Services

Business or residence single line or multiline usage for Centrex CO and Centrex CO-like services is determined, as set forth in Sections 4.6.4 (A) and (B), preceding.

Centrex CO or CO-like service provided to a college, university or school may serve both the college, university or school offices and the student or faculty dormitory (residential) quarters. When provided to residential quarters, the residential portion of the service is commonly known as dormitory service. Residential charges will apply to lines to the student or faculty dormitory (residential) quarters, as set forth in Section 17.1.2(A), following. Business charges for lines to the university, college or school offices will apply as set forth in Section 17.1.2(C), following. Charges shall be based on the number of residence and business lines reported to the Telephone Company by the end user.

4. End User Access Service (Cont'd)

4.6 <u>Rate Regulations</u> (Cont'd)

4.6.5 Radio Common Carriers

For each local exchange service used only as a path for the transmission of Radio Common Carrier (RCC) traffic between the Telephone Company serving wire center and the RCC's radio equipment, End User Access Charges do not apply.

End User Access Charges will apply to the Radio Common Carrier's local exchange service used for administrative purposes. This shall also include those Radio Common Carriers providing maritime service under Part 80 of the FCC Rules and Regulations.

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A Radio Common Carrier is described as a common carrier engaged in the provision of Public Mobile Service, as defined in Part 22 of the FCC Rules and Regulations, which is not also in the business of providing landline local exchange telephone service.

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4.6.6 Remote Call Forwarding

For each local exchange service provided as Remote Call Forwarding (RCF) residential or business service, under the general and/or local exchange service tariffs, End User Access Charges do not apply.

4.6.7 Residence Services

When an end user is provided local residence exchange service(s) in a state, multiparty and centrex services included, and when the local residence exchange or centrex service is provided under the general and/or local exchange or centrex service tariffs, the EUCL Residence -Individual line or trunk rate, as set forth in Section 17.1.2(A), following, applies to each such local residence exchange trunk. In the case of multiparty service, each party is deemed to be a user of an EUCL.

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4. End User Access Service (Cont'd)

4.6 Rate Regulations (Cont'd)

4.6.8 Integrated Services Digital Network (ISDN) Services

(A) ISDN Basic Rate Interface (BRI)

When an end user is provided residence or business local exchange service under any general and/or local exchange service tariff(s) using an Integrated Services Digital Network (ISDN) Basic Rate Interface (BRI) arrangement, one (1) EUCL Residence - Individual line or trunk charge, as set forth in Section 17.1.2(A), following, or, one (1) EUCL Single Line Business - Individual line or trunk charge, as set forth in Section 17.1.2(B), following, applies to each ISDN BRI arrangement.

ISDN Primary Rate Interface (PRI) (B)

When an end user is provided residence or business local exchange service under any general and/or local exchange service tariff(s) using an Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI) arrangement, five (5) EUCL - Multiline Business Individual line or trunk charges, as set forth in Section 17.1.2(C), following, apply to each ISDN PRI arrangement.

4.6.9 **DS1** Channel Service

When an end user is provided local exchange service under any general and/or local exchange tariff(s) using a DS1 (1.544 Mbps) channel service where the customer provides the terminating channelization equipment, five(5) EUCL -Multiline Business Individual line or trunk charges, as set forth in Section 17.1.2 (C), following, apply to each DS1 channel service.

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ACCESS SERVICE

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 or Special Access Service or to provide changes to existing services.

The regulations, rates and charges for special construction are set forth in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 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 Section 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 Services. The schedule shall specify the applicable service interval for services and the quantities of services that can be provided by a requested service date. Any associated material will be provided upon request and within a reasonable period of time.

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

Access Services will be installed during Telephone Company business days. If a customer requests that installation be done outside of scheduled work hours, and the Telephone Company agrees to this request, the customer will be subject to applicable Additional Labor Charges as set forth in Section 17.4.3(A), following.

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Access Ordering (Cont'd) 5.

5.1 General (Cont'd)

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 Section 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 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 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 Section 17.4.3(A), 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 National Exchange Carrier Association, Inc. Tariff F.C.C. No. 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 on National Exchange Carrier Association, Inc. Tariff F.C.C. No. 3.

When the request for expediting occurs subsequent to the issuance of the Access Order, a Service Date Change Charge as set forth in Section 17.4.1(B),

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5.1.3 Selection of Facilities for Access Orders

following, also applies.

The option to request a specific transmission path or channel is only provided for High Capacity Special Access facilities, 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.

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ACCESS SERVICE

5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u>

5.2.1 Switched Access Service

Except as provided for in Sections 5.2.1(F) and 5.2.1(G), following, when ordering Switched Access service, the customer must specify the directionality of the service and whether the service is to be provided as (1) Direct Trunked Transport from the serving wire center to the end office, or (2) Direct Trunked Transport from the serving wire center to a tandem which connects with Tandem Switched Transport from the tandem 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, or Synchronous Optical Channel OC3 or OC12) and the hubs or ADM equipped wire centers involved.

Except as provided for in Sections 5.2.1(F), 5.2.1(G), and 6.1.3(A)(1), following, the customer must also specify the type of Entrance Facility to be used for Switched Access (e.g., Voice Grade, High Capacity, or Synchronous Optical Channel). For High Capacity or Synchronous Optical Channel Entrance Facilities, the customer must specify the facility assignment and the channel assignment for each trunk.

With the exception of Ethernet Switched Access Local Transport (ESALT) Direct Trunked Transport, 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. ESALT Direct Trunked Transport is only available at those suitably equipped tandems and end offices identified by the Telephone Company in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. 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 800 series service access codes (other than the 800 service access code). These end offices are identified in the 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.

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5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.1 Switched Access Service (Cont'd)

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 Section 6.4.6(D), following.

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.

(A) Feature Group A

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

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

- The number of lines and the first point of switching (i.e., Dial Tone Office);
- Optional Features;
- Whether the Off-hook Supervisory Signaling is provided by the customer's equipment before the called party answers, or is forwarded by the customer's equipment when the called party answers;
- Lines to be provided as single lines;
- Lines to be arranged in multiline hunt group arrangements;
- Directionality (1-way, 2-way, etc.);
- A projected Percentage of Interstate Use (PIU) as set forth in Section 2.3.11, preceding; and,
- 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 state.

5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.1 Switched Access Service (Cont'd)

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

Orders for Feature Group B (FGB) Switched Access Service shall be in trunks.

When placing an order for FGB Switched Access Service, the customer shall provide the following information in addition to that set forth in Section 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 Interstate Use (PIU) as set forth in Section 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 exchange;
- The access code dialing arrangement (i.e., a uniform access code of 950-XXXX); and,
- For FGB 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 <u>Ordering Requirements</u> (Cont'd)

5.2.1 Switched Access Service (Cont'd)

(C) <u>Feature Group C (FGC), Feature Group D (FGD), Interim NXX</u> Translation, Operator Transfer Service, and SS7 Signaling

The ordering requirements for FGD Switched Access Service used in conjunction with Internet Protocol Gateway Access Service are specified in Section 5.2.1(F), following. The ordering requirements for FGD Switched Access Service used in conjunction with ESALT are specified in Section 5.2.1(G), following.

When placing an order for FGC and FGD Switched Access Service, the customer shall provide:

- The number of BHMC from the customer designated premises to the end office or Operator Transfer Service location by Feature Group and by type of BHMC; or
- The number of trunks desired between the customer designated premises and an entry switch or Operator Transfer Service location;
- The number of BHMC or trunks required for or to be converted to an SS7 Signaling capability;
- Optional Features;
- Interim NXX Translation options;
- Operator Transfer Service option;
- A projected Percentage of Interstate Use (PIU) as set forth in Section 2.3.11, preceding; and,
- For FGD 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 Section 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 am hour). The customer shall, for the same hour period (i.e., busy hour) for each of twenty consecutive business days, pick the twenty consecutive business days in a calendar year which add up to the largest number of minutes of use. Both originating and terminating minutes shall be included.

- 5. <u>Access Ordering</u> (Cont'd)
 - 5.2 <u>Ordering Requirements</u> (Cont'd)
 - 5.2.1 Switched Access Service (Cont'd)
 - (C) <u>Feature Group C (FGC), Feature Group D (FGD), Interim NXX</u> Translation, Operator Transfer Service, and SS7 Signaling (Cont'd)

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.

Customers may, at their option, order FGD by specifying the number of trunks desired between the 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 FGC or FGD 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 FGC or FGD 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 Section 17.2.1(B), following.

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- 5. Access Ordering (Cont'd)
 - 5.2 Ordering Requirements (Cont'd)

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- 5.2.1 Switched Access Service (Cont'd)
 - (C) Feature Group C (FGC), Feature Group D (FGD), Interim NXX Translation, Operator Transfer Service, and SS7 Signaling (Cont'd)

For the Operator Transfer Service Option ordered in conjunction with FGC or FGD Switched Access Service as set forth in Sections 6.7.1 and 6.8.1, following, the customer must specify the number of trunks or BHMCs desired between its premises and the Telephone Company operator services location.

Operator Transfer Service is provided at operator services locations as set forth in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Reserved for Future Use

SS7 Optional Feature (E)

> When FGC or FGD is ordered with the SS7 optional feature, in addition to information listed in Section 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 Toll Free Database Access Service, as described in Sections 6.1.3(A) and (C), following, the customer must order FGC or FGD to those access tandems or end offices designated as Service Switching Points (SSP) for Toll Free Database service or to those non-SSP equipped end offices that can accommodate direct trunking of originating 800 calls. SSP equipped end offices and access tandems and non-SSP equipped end offices that can accommodate direct trunking of originating 800 calls are designated in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

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

(E) <u>SS7 Optional Feature</u> (Cont'd)

Certain SSP equipped end offices that cannot accommodate direct trunking of originating 800 series (other than the 800 Service Access Code) calls are designated in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. 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 800 series (other than the 800 Service Access Code) calls, require routing via an access tandem where SSP functionally is available.

(F) <u>Internet Protocol Gateway Access Service</u>

When placing an order for FGD Switched Access Service for use in conjunction with Internet Protocol Gateway Access Service (IPG), as described in Section 16.4, following, the customer shall provide:

- The number of BHMC between the IPG gateway SWC and each end office to which the IPG customer wants to terminate interexchange voice traffic originated on its IP based network and/or receive interexchange voice traffic originated on the Telephone Company network; and,
- A projected Percentage of Interstate Use (PIU) as set forth in Section 2.3.11, preceding.

BHMC information is used to determine the number of transmission paths as set forth in Section 6.2.5, following.

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5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.1 Switched Access Service (Cont'd)

(G) Ethernet Switched Access Local Transport

When placing an order for Ethernet Switched Access Local Transport (ESALT) and required FGD Switched Access Service, as described in Section 6.1, following, the customer must specify:

- The customer designated premises;
- The number and bandwidth capacity for each ESALT Entrance Facility and, where required, the number, type and bandwidth capacity for each ESALT Direct Trunked Facility, ESALT Direct Trunked Termination, and ESALT Class of Service/Quality of Service;
- The type of signaling interface and bearer channel format requested that are compatible with the Technical Reference transmission standards listed in Section 6.1.1(A), following;
- The number of BHMC between the ESALT SWC and each end office to which the customer wants to terminate interexchange voice traffic originated on its IP based network and/or receive interexchange voice traffic originated on the Telephone Company's network; and,
- A projected Percentage of Interstate Use (PIU) as set forth in Section 2.3.11, preceding.

BHMC information is used to determine the number of transmission paths as set forth in Section 6.2.5, following.

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5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (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; and,
- That the traffic consists of more than ten percent interstate traffic.

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

Where the Special Access Service is exempt from the Special Access Surcharge, as set forth in Section 7.3, following, the customer shall furnish written certification to that effect as set forth in Section 7.3.3, 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 and multiplexing functions (e.g., Digital Data, High Capacity Multiplexing, Add/Drop Multiplexing) as well as hub levels (i.e., Hub, Terminus Hub, Intermediate Hub, and Super-Intermediate Hub). Additionally, the Subtending section of Tariff F.C.C. No.4 identifies wire centers and the Intermediate and/or Super-Intermediate Hubs with which they interconnect.

There are two Special Access Optional Rate Plans that offer term discounts: a High Capacity Optional Rate Plan and a Synchronous Optical Channel Service (SOCS) Optional Rate Plan, as described in Sections 7.2.8(A) and (B), following.

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5. Access Ordering (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.2 Special Access Service (Cont'd)

When ordering the High Capacity Term Discount Optional Rate Plan, an upgrade to the plan, or a High Capacity Service Optional Rate Plan Replacement, discontinuance charges, as specified in Section 7.2.8(A), following, will not apply if the conditions set forth in Section 7.2.8(A), 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.

<u>Term Discounts - Optional Rate Plan Replacements</u>

Discontinuance charges, as specified in Section 7.2.8(A)(4), following, will not apply when an existing High Capacity Optional Rate Plan customer:

- Orders the disconnect of its existing committed High Capacity channel(s) and installation of one or more newly committed SOCS channel(s), ATM-CRS Port(s), or ETS Port(s), as described in Section 7.2.8(A)(3), following, and complies with the following requirements:
 - The customer's orders for the disconnection of its existing committed High Capacity channel(s) and installation of its replacement newly committed SOCS channel(s), ATM-CRS Port(s), or ETS Port(s) are submitted to the Telephone Company at the same time.
 - All orders specifically reference the replacement of the existing committed High Capacity channel(s) with one or more newly committed SOCS channel(s), ATM-CRS Port(s) or ETS Port(s) in the customer's new SOCS Optional Rate Plan, in the customer's new or existing ATM-CRS Term Discount Plan, or in the customer's new or existing ETS Term Discount Plan.

5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.2 Special Access Service (Cont'd)

The Synchronous Optical Channel Service Optional Rate Plan is a Term Discount plan. When ordering a Synchronous Optical Channel Service Term Discount Optional Rate Plan, upgrade to the plan, or a SOCS Optional Rate Plan Replacement, discontinuance charges, as specified in Section 7.2.8(B), following, will not apply if the conditions set forth in Section 7.2.8(B), following, are met and the customer provides the following ordering information:

Term Discounts - Upgrades in Capacity (OC3/OC3c to OC12)

- The customer's order for the disconnect of the existing OC3/OC3c Service and the installation of the new OC12 Service are received at the same time and specifically reference the application of upgrade in capacity.
- The customer's disconnect order for the existing OC3/OC3c Service must reference the OC12 Service installation order.

Customer orders to install and disconnect OC3/OC3c or OC12 services provided under a Term Discount plan where the number of OC3s, OC3cs, or OC12s remains constant and the customer wishes to maintain the existing Term Discount period and minimum service period must:

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

Term Discounts - Optional Rate Plan Replacements

Discontinuance charges, as specified in Section 7.2.8(B)(4), following, will not apply when an existing SOCS Optional Rate Plan customer:

- Orders the disconnect of its existing committed SOCS channel(s) and installation of one or more newly committed ATM-CRS Port(s) or ETS Port(s), as described in Section 7.2.8(B)(3), following, and complies with the following requirements:
 - The customer's orders for the disconnection of its existing committed SOCS channel(s) and installation of its replacement newly committed ATM-CRS Port(s) or ETS Port(s) are submitted to the Telephone Company at the same time.
 - All orders specifically reference the replacement of the existing committed SOCS channel(s) with one or more newly committed ATM-CRS Port(s) or ETS Port(s) in the customer's new or existing ATM-CRS Term Discount Plan or in the customer's new or existing ETS Term Discount Plan.

5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.3 WATS or WATS-type Services

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

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

When the optional screening, switching and/or recording functions are not provided at the customer serving wire center, Channel Mileage, as set forth in Section 7.2.1(B), 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 or Synchronous Optical Channel facilities. Mixed use facilities to a hub or ADM equipped wire center will be ordered and provided as Special Access Service. Where mixed use is employed, individual services utilizing these facilities must be ordered either as Switched Access Service or Special Access Service as further elaborated and set forth in Sections 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.

Mixed use is also the provision of both Ethernet Switched Access Local Transport (ESALT) and Ethernet Transport Service (ETS) over the same Ethernet Transport Service facilities. Mixed use facilities to an ETS SWC will be ordered and provided as Ethernet Transport Service. Where mixed use is employed, individual services utilizing these facilities must be ordered either as ESALT or ETS, as set forth in Sections 6.4.7 and 16.3.4(D), following.

5. Access Ordering (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.5 Miscellaneous Services

Testing Service, Additional Labor, Telecommunications Service Priority, and Special Facilities Routing shall be ordered with an Access Order or may subsequently be added to a pending order at any time up to and including the service date for the access service. When miscellaneous services are added to a pending order a service date change may be required. When a service date change is required, the Service Date Change Charge, as set forth in Section 17.4.1(B), following, will apply. When miscellaneous services are added to a pending order, charges for a Design Change, as set forth in Section 17.4.1(C), following, will apply when an engineering review is required. If both a service date change and an engineering review are required, both the Service Date Change Charge and the Design Change Charge will apply, as set forth in Section 5.4.3(B), following.

The rates and charges for these services, as set forth in Section 17.4.1(B) and (C), following, will apply in addition to the ordering charges set forth in Section 17.4.1(A), following, and the rates and charges for the Access Service with which they are associated.

Additional Engineering is not an ordering option, but will be applied to an Access Order when the Telephone Company determines that Additional Engineering is necessary to accommodate a customer request. Additional Engineering will only be required as set forth in Section 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. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.6 Frame Relay Access Service

When ordering Frame Relay Access Service, a minimum of two port connections are required for data to be transported between customer designated premises.

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

- The customer designated premises;
- The type of channel;
- The channel interface(s);
- The technical specification package and options desired;
- Whether a Frame Relay Access Connection (i.e., user-to-network interface) or a Frame Relay Inter-network Connection (i.e., network-to-network interface) is required;
- The port speed;
- The number of Permanent Virtual Connections (PVCs) required;
- The location of the ports for each PVC or for connection to DSL Access Services, the location of the port and the DSL Access Service Connection Point;
- The Committed Information Rates (CIRs) that will be associated with each PVC; and,
- That the traffic consists of more than ten percent interstate traffic.

The port connecting the Special Access facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the Special Access facility.

When connecting to the port of another customer, the ordering customer must obtain authorization from the other customer.

When an extended PVC is ordered, the customer is responsible for placing the order with all telephone companies involved.

5. Access Ordering (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.6 Frame Relay Access Service (Cont'd)

When ordering a Frame Relay Access Service Term Discount Optional Rate Plan or an upgrade to the plan, discontinuance charges, as specified in Section 16.1.5, following, will not apply if the conditions set forth in Section 16.1.5 are met and the customer provides the following ordering information:

Term Discounts-Upgrades in Capacity

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

Customer orders to install and disconnect Frame Relay Access Service connections provided under a Term Discount plan where the facility capacity remains constant and the customer wishes to maintain the existing Term Discount period and minimum service period must:

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

5. <u>Access Ordering</u> (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

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

When placing an order for ATM-CRS, the customer must specify:

- The customer designated premises;
- The type(s) of ATM-CRS Port interface(s);
- The speed for each ATM-CRS Port;
- The number, bandwidth capacity and traffic routing prioritization parameter for each ATM-CRS Virtual Path associated with an ATM-CRS Port;
- The ATM-CRS Ports and Virtual Paths associated with ATM-CRS Virtual Circuit Channels being established by the Telephone Company, if applicable;
- Options desired, if applicable; and,
- That the traffic consists of more than 10 percent interstate traffic.

When connecting to the ATM-CRS Port of another customer, the ordering customer must obtain authorization from the other customer.

Discontinuance charges, as specified in Section 16.2.5(D), following, will not apply when an existing ATM-CRS Term Discount Plan customer (1) orders the disconnect of an existing committed ATM-CRS Port and its replacement by one or more newly installed committed ATM-CRS Port(s), as described in Section 16.2.5(B)(1), following, and (2) complies with the following requirements:

- The customer's orders for the disconnection of the existing committed ATM-CRS Port and the installation of the replacement committed ATM-CRS Port(s) are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of the existing committed ATM-CRS Port with the newly installed committed ATM-CRS Port in the customer's existing ATM-CRS Term Discount Plan.

Discontinuance charges, as specified in Section 16.2.5(D), following, will not apply when an existing ATM-CRS Term Discount Plan customer (1) orders the disconnect of an existing committed ATM-CRS Port and its replacement by one or more newly installed committed ETS Port(s), as described in Section 16.2.5(B)(4), following, and (2) complies with the following requirements:

- The customer's orders for the disconnection of the existing committed ATM-CRS Port and the installation of the replacement committed ETS Port(s) are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of the existing committed ATM-CRS Port with the newly installed committed ETS Port in the customer's existing ETS Term Discount Plan.

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ACCESS SERVICE

5. Access Ordering (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.8 Ethernet Transport Service (ETS)

- (A) When placing an order for ETS, the customer must specify:
- The customer designated premises;
- The type(s) of ETS Port interface(s);
- The speed for each ETS Port;
- The bandwidth capacity for each ETS Channel Termination (ETS CT), and the number and bandwidth capacity for each ETS Ethernet Virtual Connection (ETS EVC), ETS Extended Ethernet Virtual Connection (ETS E-EVC) and ETS Interconnected Ethernet Virtual Connections (ETS I-EVCs) associated with an ETS Port;
- Options desired, if applicable; and,
- That the traffic consists of more than 10 percent interstate traffic.

When connecting to the ETS Port of another customer, the ordering customer must obtain authorization from the other customer.

- (B) Discontinuance charges, as specified in Section 16.3.5(D), following, will not apply when an existing ETS Term Discount Plan (ETS TDP) customer (1) orders the disconnect of an existing committed ETS TDP Port and its replacement by one or more newly installed committed ETS TDP Port(s), as described in Section 16.3.5(B)(1), following, and (2) complies with the following requirements:
- The customer's orders for the disconnection of the existing committed ETS TDP Port and the installation of the replacement committed ETS TDP Port(s) are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of the existing committed ETS TDP Port with the newly installed committed ETS TDP Port in the customer's existing ETS Term Discount Plan. (T)

5. Access Ordering (Cont'd)

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5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.8 Ethernet Transport Service (ETS) (Cont'd)

- (C) Discontinuance charges as specified in Section 16.3.5(D), following, will not apply when an existing ETS Term Discount Plan customer: 1) orders the disconnect of an existing committed ETS TDP Port and its replacement by one or more newly installed committed ETS Port Term Discount Plan (ETS PTDP) Port(s) under individual ETS Port Term Discount Plans as specified in Section 16.3.5(B)(2), following, and 2) complies with the following requirements:
- The customer's orders for the disconnection of the existing committed ETS TDP Port and the installation of the newly committed replacement ETS PTDP Port(s) are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of the existing committed ETS TDP Port with the newly installed committed ETS PTDP Port under an individual ETS PTDP.
- (D) Discontinuance charges as specified in Section 16.3.5(D), following, will not apply when an existing ETS Term Discount Plan customer: 1) discontinues its existing ETS TDP in its entirety and replaces it with one or more individual ETS PTDPs as specified in Section 16.3.5(C)(2) and 2) complies with the following requirements:
- The customer's orders for the discontinuance of the ETS TDP and the installation of one or more replacement ETS PTDPs are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of an existing ETS TDP with one or more ETS PTDPs.
- (E) Discontinuance charges as specified in Section 16.3.6(C), following, will not apply when an ETS Port Term Discount Plan customer: 1) disconnects a committed ETS PTDP Port at any time during the term commitment period and replaces it with a newly installed committed ETS PTDP Port as described in Section 16.3.6(A), following and 2) complies with the following requirements:
- The customer's orders for the disconnection of the existing committed ETS PTDP Port and the installation of the newly committed replacement ETS PTDP Port are submitted to the Telephone Company at the same time.
- Both orders specifically reference the replacement of an existing committed ETS PTDP Port with a newly installed committed ETS PTDP Port.

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5. Access Ordering (Cont'd)

5.2 <u>Ordering Requirements</u> (Cont'd)

5.2.9 <u>Internet Protocol Gateway Access</u> Service (IPG)

When placing an order for IPG, the customer must specify:

- The customer designated premises;
- The number of IPG Port interface(s);
- The speed for each IPG Port;
- The number and bandwidth capacity for each IPG Transport Termination (IPG TT) and, where required, the number and bandwidth capacity for each IPG Transport Mileage Facility (IPG TMF) and IPG Transport Mileage Termination (IPG TMT);
- The type of signaling interface and bearer channel format requested that are compatible with the Technical Reference transmission standards listed in Section 16.4.3(C), following;
- That an order for FGD Switched Access Service has been placed pursuant to the requirements specified in Section 5.2.1(F), preceding; and,
- That the traffic consists of more than 10 percent interstate traffic.

5. <u>Access Ordering</u> (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 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 Section 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 Section 2.4.7(A)(1), preceding. The customer will place the order with the telephone company as follows:

- For FGA Switched Access Service, the customer will place the order with the telephone company in whose territory the first point of switching is located. The first point of switching is the dial tone office.
- When the first point of switching is not in the same telephone company's territory as the Interexchange Carrier premises, the customer must supply a copy of the order to the telephone company in whose territory the Interexchange Carrier premises is located and any other telephone company(s) involved in providing the service. When service is provided through a centralized equal access provider, the customer must supply a copy of the order to that provider.

5. Access Ordering (Cont'd)

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

5.3.2 Meet Point Billing Ordering

Each telephone company will provide its portion of the Access Service within its operating territory to an interconnection point(s) with the other telephone company(s). Billing Percentages will be determined by the telephone companies involved in providing the Access Service and listed in 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 Section 2.4.7(B), preceding. All other appropriate charges in each telephone company tariff are applicable.

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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 FGA and FGB 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 Switched Access 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 equal access arrangements are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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- (B) For FGC and FGD 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.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

5. <u>Access Ordering</u> (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 telephone company.
- (E) For Special Access Service involving a hub(s), the customer must place the order with the telephone company(s) in whose territory the hub(s) is located.
- (F) Reserved for Future Use.
- (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.
- (H) For a Special Access Service connection to a frame relay network, the customer must place the order with the telephone company that provides the frame relay switch. Special Access Service in this situation must be ordered to the wire center equipped with a frame relay switch.
- (I) For Special Access Service used in conjunction with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS), the customer must place the order with each telephone company that provides an ATM-CRS Port connection.
- (J) For Special Access Service used in conjunction with Ethernet Transport Service (ETS), the customer must place the order with each telephone company that provides an ETS Port connection.

5. Access Ordering (Cont'd)

5.4 <u>Charges Associated with Access Ordering</u>

5.4.1 Access Order Charge

The Access Order Charge, as set forth in Section 17.4.1(A), is applied to all customer requests for new Special Access, Public Packet Data Network, and Switched Access Services. In addition, the Access Order Charge is applicable to customer requests for additions, changes or rearrangements to existing Special Access, Public Packet Data Network, and Switched Access Services, 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 Sections 6.4.1(B)(3), 7.2.2(C)(3), 16.1.4(B)(2)(b), 16.2.4(B)(2)(b), 16.3.4(B)(2)(b), and 16.4.4(B)(2)(b), following;
- When a change to a pending order does not result in the cancellation of the pending order and the issuance of a new order;
- When the Interim NXX Translation charge is applicable;
- When a Miscellaneous Service Order Charge is applicable;
- When a PIC Change Charge is applicable;
- When a Telephone Company initiated network reconfiguration requires a customer's existing access service to be reconfigured;
- When a service with an ICB rate is converted to a similar service with a non-ICB tariff rate prior to the expiration of the ICB;
- When a Billing Name and Address Order charge is applicable;
- When a 900 Blocking Service charge is applicable;
- When Payphone Service Providers (PSPs) obtain Coin Supervision Additive Service in conjunction with local exchange service lines for the provision of pay telephone service;

5. Access Ordering (Cont'd)

5.4 <u>Charges Associated with Access Ordering</u>

5.4.1 Access Order Charge (Cont'd)

The Access Order Charge does not apply (Cont'd):

- To Government Emergency Telecommunications Service (GETS), as set forth in Section 10.5.1(C), following;
- When a High Capacity Optional Rate Plan customer makes changes to its existing High Capacity Optional Rate Plan, as specified in Section 7.2.8(A), following, for High Capacity Service Optional Rate Plan Replacements;
- When a SOCS Optional Rate Plan customer makes changes to its existing SOCS Optional Rate Plan, as specified in Section 7.2.8(B), following, for SOCS Optional Rate Plan Replacements;
- When an ETS Design Change Charge is applicable;
- When an ATM-CRS customer establishes a new ATM-CRS Term Discount Plan or makes changes to an existing ATM-CRS Term Discount Plan;
- When an ETS customer establishes a new ETS Term Discount Plan or makes changes to an existing ETS Term Discount Plan;
- When an ETS Term Discount Plan customer establishes a new or discontinues an existing ETS Volume Discount Plan;
- When an ETS Term Discount Plan customer transfers in-service ETS Term Discount Plan Committed Ports to individual ETS Port Term Discount Plan term commitments.
- When an ETS customer establishes a new ETS Port Term Discount Plan or makes any changes to an existing ETS Port Term Discount Plan.
- When an ETS Port Term Discount Plan customer establishes a new or discontinues an existing ETS Port Term Discount Plan Volume Discount Plan.
- When the ETS Port Protection optional feature is ordered in conjunction with the ordering of the Primary ETS Basic Port, as set forth in Section 16.3.4(A)(6)(b), following.
- When an ETS customer orders an ETS MM-VCC
- When an ETS customer establishes a new ETS E-Rate Term Discount Plan
- When an ETS customer replaces its ETS Term Discount Plan with an ETS E-Rate Term Discount Plan
- When an ETS customer replaces its ETS Port Term Discount Plan with an ETS E-Rate Term Discount Plan

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Partner – Communications and Media Practice

5. Access Ordering (Cont'd)

(N)

5.4 <u>Charges Associated with Access Ordering</u>

5.4.1 Access Order Charge (Cont'd)

The Access Order Charge does not apply (Cont'd):

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- To the ADSL Access Service Voice-Data option as set forth in Section 8.1, following and to the SDSL Access Service Voice-Data option set forth in Section 8.2, following
- When an ADSL Access Service line customer orders an ADSL service conversion as set for the in Section 8.1.5(E), following

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 Sections 5.3.1 and 5.3.2, 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 1) to the delivery of signaling to an existing STP Port, or 2) of CICs to an existing FGB or FGD trunk group.

Certain material currently found on this page previously appeared on 1st Revised Page 5-25

5. Access Ordering (Cont'd)

5.4 <u>Charges Associated with Access Ordering</u> (Cont'd)

5.4.2 Miscellaneous Service Order Charge

A Miscellaneous Service Order Charge, as set forth in Section 17.4.1(D), 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 (Section 13.4), 900 Blocking Service(13.8), Billing Name and Address Service (13.9), Local Number Portability Services (13.14), and Access Recovery Charge (13.15) which do 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); and
- 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)],
- International Blocking Service (13.8),
- Originating Line Screening (OLS) Service (13.10).

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. <u>Access Ordering</u> (Cont'd)

5.4 <u>Charges Associated with Access Ordering</u> (Cont'd)

5.4.3 Access Order Change Charges

Access Order changes involve service date changes and design changes. The customer may request a change of its Access Order prior to the service date. The 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 Section 5.1.2, preceding. All charges for Access Order changes, as set forth in Section 17.4.1(B) and (C), following, will apply on a per occurrence basis.

Any increase in the number of ordered: (1) Special Access Service channels, (2) Switched Access Service lines, trunks, or busy hour minutes of capacity, (3) Frame Relay Connections and/or PVCs, (4) CCS/SS7 Port Terminations, (5) ATM-CRS Ports, Virtual Paths or Virtual Circuit Channels, (6) ETS Ports, ETS Channel Terminations, ETS Ethernet Virtual Connections, ETS Extended Ethernet Virtual Connections, or ETS Interconnected Ethernet Virtual Connections, or (7) IPG Ports, IPG Transport Terminations, IPG Transport Mileage Facilities or IPG Transport Mileage 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.

(A) <u>Service Date Change</u>

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 Section 17.4.1(B), following, will be applied to the order.

5. Access Ordering (Cont'd)

5.4 Charges Associated with Access Ordering (Cont'd)

5.4.3 Access Order Change Charges (Cont'd)

(A) Service Date Change (Cont'd)

If the service date is changed to an earlier date, and the Telephone Company determines additional labor is 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 Section 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 Section 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.

(B) Design Change

The customer may request a design change to the service ordered prior to the requested service date. A design change is any change to an Access Order which requires engineering review. An engineering review is a review, by Telephone Company personnel, of the service ordered and the requested changes to determine what changes in the design, if any, are necessary to meet the changes requested by the customer. Design changes include such things as the addition or deletion of optional features or functions or a change in the type of Transport Termination (Switched Access only), type of channel interface, type of Interface Group or technical specification package. or a change in the destination or speed of: (1) a Frame Relay Access Service Permanent Virtual Connection, (2) an Asynchronous Transfer Mode Cell Relay Access Service Virtual Path, (3) an Ethernet Transport Service (ETS) Ethernet Virtual Connection, (4) an ETS Extended Ethernet Virtual Connection or (5) an ETS Interconnected Ethernet Virtual Connection.

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.

5. <u>Access Ordering</u> (Cont'd)

5.4 Charges Associated with Access Ordering (Cont'd)

5.4.3 Access Order Change Charges (Cont'd)

(B) <u>Design Change</u> (Cont'd)

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 Section 17.4.1(C), following, will apply in addition to the charge for Additional Engineering, as set forth in Section 17.4.2, following. If a change of service date is required, the Service Date Change Charge, as set forth in Section 17.4.1(B), following, will also apply. The Access Order Charge, as specified in Section 17.4.1(A), following, does not apply.

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, as set forth in Section 7.2.4, following, 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 and Synchronous Optical Channel Entrance Facilities and Direct Trunked Transport is as set forth in Section 6.1.3(A), following. The minimum period for Ethernet Switched Access Local Transport is as set forth in Section 6.1.3(A)(2), following. The minimum period for Special Access High Capacity Service and Synchronous Optical Channel Service is as set forth in Sections 7.2.4 and 7.2.8, following.

The minimum period for Frame Relay Access Service is as set forth in Sections 16.1.4(C), following. The minimum period for Asynchronous Transfer Mode Cell Relay Access Service is as set forth in Section 16.2.4(C), following. The minimum period for Ethernet Transport Service is as set forth in Section 16.3.4(C), following. The minimum period for Internet Protocol Gateway Access Service is as set forth in Section 16.4.4(C), following.

Switched Access usage rated services (i.e., End Office, and Tandem Switched Transport) have no minimum period.

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

5. Access Ordering (Cont'd)

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

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 flat rated Switched Access Service, the charge for a month or fraction thereof is equal to the applicable recurring charges plus any nonrecurring charges and/or Special Construction charge(s) that may be due.
- (B) For Special Access Service and Public Packet Data Network Service, the charge for a month or fraction thereof is the applicable monthly rates for the appropriate channel or service type plus any optional features, nonrecurring charges, and/or Special Construction charge(s) that may apply.
- (C) 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 Section 7.2.4, following.

5.5.3 Cancellation of an Access Order

- (A) A customer may cancel an Access Order for the installation of service on any date prior to the service date. The cancellation date is the date the Telephone Company receives written or verbal notice from the customer that the order is to be canceled. The verbal notice must be followed by written confirmation within 10 days. If a customer or 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 canceled 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.

- 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)
 - (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, Special Access, or Public Packet Data Network Service facilities is considered to have started when the Telephone Company incurs any cost in connection therewith or in preparation thereof which would not otherwise have been incurred.
 - (2) Where the customer cancels an Access Order prior to the start of installation of access facilities, no charges shall apply.
 - (3) Where installation of access facilities has been started prior to the cancellation, the charges specified in (a) or (b) following, whichever is lower, shall apply.
 - (a) A charge equal to the costs incurred in such installation, less estimated net salvage. Such costs include the 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;
 - (b) The minimum period charges for Switched Access, Special Access, or Public Packet Data Network Service ordered by the customer, as set forth in Section 5.5.2, preceding.
 - (C) When a customer cancels an order for the discontinuance of service, no charges apply for the cancellation.
 - (D) If the Telephone Company misses a service date by more than 30 days and such delay is not requested or caused by the customer (excluding those circumstances where the date is missed due to acts of God, governmental requirements, work stoppages and civil commotions), the customer may cancel the Access Order without incurring cancellation charges.

5. Access Ordering (Cont'd)

5.5 Minimum Periods and Cancellations (Cont'd)

5.5.4 Partial Cancellation Charge

Any decrease in the number of ordered: (1) Special Access Service channels, (2) Switched Access Service lines, trunks, or busy hour minutes of capacity, (3) Frame Relay Connections and/or PVCs, (4) CCS/SS7 Port Terminations, (5) Asynchronous Transfer Mode Cell Relay Access Service Ports, Virtual Paths or Virtual Circuit Channels, (6) ETS Ports, ETS Channel Terminations, ETS Ethernet Virtual Connections, ETS Extended Ethernet Virtual Connections, or ETS Interconnected Ethernet Virtual Connections, or (7) IPG Ports, IPG Transport Terminations, IPG Transport Mileage Facilities or IPG Transport Mileage Terminations will be treated as a partial cancellation and charges will be determined as set forth in Section 5.5.3(B), preceding.

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ACCESS SERVICE

6. Switched Access Service

6.1 General

Switched Access Service, which is available to customers for their use in furnishing their services to end users, provides a two-point communications path between a customer designated premises and an end user's premises, or when used in conjunction with Internet Protocol Gateway Access Service (IPG), as described in Section 16.4, following, between an IPG SWC 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. Except as specified in Section 6.8.1(M), following, for Feature Group D Switched Access Service used in conjunction with IPG, 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 Sections 6.1.3 and 6.5 through 6.8, 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 Section 17.2, following. The application of rates for Switched Access Service is described in Section 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 Sections 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 Section 6.4.8, following.

The following provision applies to the treatment of Toll VoIP-PSTN Traffic pursuant to the Federal Communications Commission's Part 51 Interconnection Rules and in compliance with the Federal Communications Commission's Report and Order and Further Notice of Proposed Rulemaking in CC Docket Nos. 96-45 and 01-92; GN Docket No. 09-51; WC Docket Nos. 03-109, 05-337, 07-135 and 10-90; and WT Docket No. 10-208, adopted October 27, 2011 and released November 18, 2011 (FCC 11-161). In the absence of an interconnection agreement between the Telephone Company and the customer specifying the treatment of Toll VoIP-PSTN Traffic, the Telephone Company will bill the customer the applicable switched access rates and charges specified in Section 17.2, following, on all jurisdictionally interstate voice traffic identified as Toll VoIP-PSTN Traffic.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

Switched Access Service purchased from the provisions of this tariff may be commingled with unbundled network elements or unbundled network element combinations purchased pursuant to the Commission's Part 51 Interconnection Rules and in compliance with the Federal Communications Commission's Report and Order and Order on Remand and Further Notice of Proposed Rulemaking in CC Docket Nos. 01-338, 96-98 and 98-147, adopted February 20, 2003 and released August 21, 2003 (FCC 03-36).

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6.1.1 <u>Description and Provision of Switched Access Service Arrangements</u>

(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).

Except as provided for in Sections 6.1.3(A)(1) and 6.8.1(M), following, the provision of each Feature Group requires Local Transport facilities, including an Entrance Facility, and the appropriate End Office functions. In addition, Special Access Service may, at the option of the customer, be connected with FGA, FGB, FGC, or FGD at Telephone Company designated WATS Serving Offices. In addition, IPG may, at the option of the customer, be connected with FGD at Telephone Company designated IPG SWCs.

Where suitable facilities exist, the Ethernet Switched Access Local Transport (ESALT) option enables the customer to handoff IP formatted traffic to the Telephone Company at the designated end office, host office, or tandem office location where the Telephone Company will convert the customer's traffic to TDM format for termination to local exchange service end users over the Telephone Company's local network. This option also enables the Telephone Company to convert traffic originated from its local exchange service end users from TDM format to IP format at the designated end office, host office, or tandem office and handoff that IP formatted traffic to the customer designated premises.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Description and Provision of Switched Access Service Arrangements (Cont'd)

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

There are three specific transmission specifications (i.e., Types A, B and C) that have been identified for the provision of Feature Groups. Except as specified below for ESALT, 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, High Capacity and Synchronous Optical Channel Services.

The technical specifications for the ESALT Entrance Facility and Direct Trunked Transport are set forth in the Technical References listed below. The transmission quality of ESALT is not guaranteed and is offered to customers at a best effort level.

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IEEE Standard 802.3 – 2008; (x) (x) IETF RFC 3261 – June 2002; (x) IETF RFC 3262 – June 2002: (x) IETF RFC 3263 – June 2002; (x) IETF RFC 3264 – June 2002; (x) IETF RFC 3265 – June 2002; (x) IETF RFC 3550 - July 2003 (x) ITU-T G.711 – November 1988; (x) ITU-T G.723.1 – May 2006; (x) ITU-T G.729 – January 2007; (x) ITU-T G.7041/Y.1303 – August 2005; (x) ITU-T G.8040/Y.1340 – September 2005; (x) ITU-T H.225.0 – May 2006; (x) ITU-T H.245 – June 2008; and/or (x) ITU-T H.323 – June 2006. (x)

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 Section 15.1.2, following.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

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

(A) Description (Cont'd)

Feature Groups are arranged for either originating, terminating or two-way calling, based on the customer end office switching capacity Originating calling permits the delivery of calls from ordered. Telephone Exchange Service locations to the customer designated premises, or, when used in conjunction with IPG as described in Section 6.8.1(M), following, from Telephone Exchange Service locations to the IPG SWC.. Terminating calling permits the delivery of calls from the customer designated premises to Telephone Exchange Service locations, or, when used in conjunction with IPG as described in Section 6.8.1(M), following, from the IPG SWC 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 optional feature is available with FGC and FGD.

Operator Transfer Services will be provided over FGC or FGD switched access service trunks from the operator service location to the customer's premises. Where required by technical limitations, a separate FGC or FGD trunk group will be established for Operator Transfer Service. The operator service location will provide trunk answer and disconnect supervisory signaling to the customer.

Detailed descriptions of each of the available Feature Groups are set forth in Sections 6.5 through 6.8, 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 Section 6.10, following, unless specifically stated otherwise, are available at all Telephone Company end office switches.

6. Switched Access Service (Cont'd)

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

6.1.1 Description and Provision of Switched Access Service Arrangements (Cont'd)

(B) <u>Manner of Provision</u>

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 on a per trunk basis as set forth in Section 5.2, preceding. ESALT may only be used in conjunction with FGD Access.

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

There are two major BHMC categories identified as: Originating and Terminating. Originating BHMCs represent access capacity within a LATA for carrying traffic from the end user to the customer, or when used in conjunction with Internet Protocol Gateway Access Service, Originating BHMCs represent capacity within the operating territory of the Telephone Company for carrying traffic between the end user and an IPG SWC. Terminating BHMCs represent access capacity within a LATA for carrying traffic from the customer to the end user, or when used in conjunction with Internet Protocol Gateway Access Service, Terminating BHMCs represent capacity within the operating territory of the Telephone Company for carrying traffic between the end user and an IPG SWC. 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, IDDD and Operator Transfer Services. Domestic BHMCs represent access capacity for carrying only domestic traffic other than 700, 800 series, 900, Operator and Operator Transfer Services traffic; IDDD BHMCs represent access capacity for carrying only international traffic; and, 700, 800 series, 900, Operator and Operator Transfer Services BHMCs represent access capacity for carrying, respectively, only 700, 800 series, 900, Operator or Operator Transfer Services traffic. When ordering such types of access capacity, the customer must specify Domestic, 700, 800 series, 900, Operator, IDDD or Operator Transfer Services BHMCs.

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.2 Ordering Options and Conditions

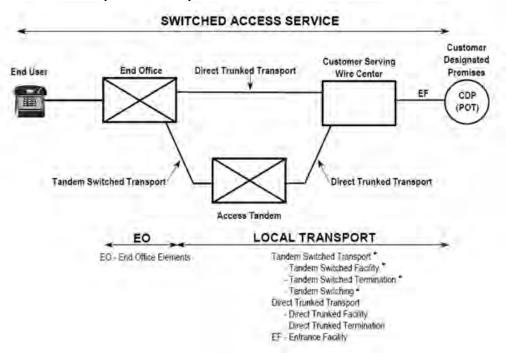
Switched Access Service is ordered under the Access Order provisions set forth in Section 5.2, preceding. Also, included in that section are regulations concerning miscellaneous service order charges which may be associated with Switched Access Service ordering (e.g., Service Date Changes, Cancellations,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

6.1.3 Rate Categories

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

- Local Transport (described in Section 6.1.3(A), following)
- End Office (described in Section 6.1.3(B), following)
- Chargeable Optional Features (described in Section 6.1.3(C), following)

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.



* As of July 1, 2021, for originating toll free minutes only, and office rate elements (i.e., Local Switching and information Surcharge) are listed in Section 17.2.3(A) and (B), following, and the Joint Tandem Switched Transport rate element in Section 17.2.2, following, is applied per tandem as set forth in Section 6.1.3(A), following, in lieu of the Tandem Switched Facility, Tandem Switched Termination and Tandem Switching rate elements.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) <u>Local Transport</u>

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. When used in conjunction with IPG as specified in Section 16.4, following, the Local Transport rate category establishes the charges related to the transmission and tandem switching facilities between the IPG SWC and the end office switch(es) to terminate the customer's communications. Mileage measurement rules are set forth in Section 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, High Capacity DS1 or DS3, Synchronous Optical Channel OC3 or OC12, or ESALT 2 Mbps, 10 Mbps or 50 Mbps) to be used in the provision of the Direct Trunked Transport or Entrance Facility. High Capacity DS3, Synchronous Optical Channel and ESALT facilities are only available at wire centers identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, Wire Center Information.

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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)

Except when ordering ESALT or Local Transport associated with IPG, 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, where applicable, (4) the directionality of the service, and (5) when multiplexing is required, the hub(s) at which the multiplexing will be provided.

When ordering ESALT, the customer must specify: (1) the ESALT-equipped SWC and (2) the end office switch(es) to which the customer wants to terminate interexchange voice traffic originated on its IP based network and/or receive interexchange voice traffic originated on the Telephone Company's network.

When ordering Local Transport associated with IPG, the customer must specify: (1) the IPG SWC and (2) the end office switch(es) to which the IPG customer wants to terminate interexchange voice traffic originated on its IP based network and/or receive interexchange voice traffic originated on the Telephone Company's network.

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 Section 6.4.6(D), following.

Except as specified above for High Capacity DS3, Synchronous Optical Channel and Ethernet Switched Access Local Transport, 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.

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- 6. Switched Access Service (Cont'd)
 - 6.1 General (Cont'd)
 - 6.1.3 Rate Categories (Cont'd)
 - (A) Local Transport (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 800 series (other than the 800 service access code) service access codes. 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.

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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 (SWC). 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.

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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.

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Local Transport is provided at the rates and charges set forth in Section 17.2.2 following. The application of these rates with respect to individual Feature Groups is as set forth in Section 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 Section 2.4.7, preceding.

The Local Transport rate category includes the following elements as described below:

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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,
- (2) Direct Trunked Transport,
- (3) Tandem Switched Transport,
- (4) Multiplexing,
- (5) Add/Drop Multiplexing,
- (6) Customer Node,
- (7) Interface Groups,
- (8) Non-chargeable Optional Features, and
- (9) Chargeable Optional Features.

(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.

Eight types of Entrance Facility are available:

- Voice Grade 2 or 4 wire an analog channel with an approximate bandwidth of 300 to 3000 Hz;
- High Capacity DS1 an isochronous serial digital channel with a rate of 1.544 Mbps;
- High Capacity DS3 an isochronous serial digital channel with a rate of 44.736 Mbps;
- Synchronous Optical Channel OC3 a synchronous optical channel with a rate of 155.52 Mbps;
- Synchronous Optical Channel OC12 a synchronous optical channel with a rate of 622.08 Mbps;
- ESALT 2 Mbps an Ethernet packet based channel with a rate of 2 Mbps;
- ESALT 10 Mbps an Ethernet packet based channel with a rate of 10 Mbps;
- ESALT 50 Mbps an Ethernet packet based channel with a rate of 50 Mbps.

- 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)
 - (1) Entrance Facility (Cont'd)

The minimum period for which a High Capacity DS3, Synchronous Optical Channel, or Ethernet Switched Access Local Transport 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 Section 17.2.2(A), following, will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building, except as provided for below.

The Entrance Facility charge specified in Section 17.2.2(A), following, will not apply when: (1) the customer designated premises and serving wire center are physically (including caged, cageless, shared and adjacent arrangements) or virtually collocated as those terms are used in 47 C.F.R. § 51.323 and (2) the customer obtains such collocation for the purpose of interconnection with the Telephone Company's network for the transmission and routing of telephone exchange service, exchange access or both, and for the purpose of providing local exchange or exchange access services to its customers.

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.

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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)

(2) Direct Trunked Transport

The Direct Trunked Transport rate elements recover a portion of the cost associated with a communications path or circuits dedicated to the use of a single customer between:

- The serving wire center and an end office,
- The serving wire center and a tandem,
- The serving wire center and a hub,
- A hub and an end office,
- The serving wire center and an ADM equipped wire center where add/drop multiplexing functions are performed, and
- an ADM equipped wire center and an end office.

Except as specified above for High Capacity DS3, Synchronous Optical Channel, and Ethernet Switched Access Local Transport, Direct Trunked Transport is available at all tandems and to 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 800 series (other than the 800 service access code) service access codes. 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.

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Switched Access Service (Cont'd) 6.

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Local Transport (Cont'd)

(2) **Direct Trunked Transport** (Cont'd)

Eight types of Direct Trunked Transport are available:

- Voice Grade 2 or 4 wire an analog channel with an approximate bandwidth of 300 to 3000 Hz;
- High Capacity DS1 an isochronous serial digital channel with a rate of 1.544 Mbps;
- High Capacity DS3 an isochronous serial digital channel with a rate of 44.736 Mbps;
- Synchronous Optical Channel OC3 a synchronous optical channel with a rate of 155.52 Mbps;
- Synchronous Optical Channel OC12 a synchronous optical channel with a rate of 622.08 Mbps;
- ESALT 2 Mbps an Ethernet packet based channel with a rate of 2 Mbps;
- ESALT 10 Mbps an Ethernet packet based channel with a rate of 10 Mbps;
- ESALT 50 Mbps an Ethernet packet based channel with a rate of 50 Mbps.

High Capacity DS3 Direct Trunked Transport cannot be terminated at end offices that are not identified as hub offices that provide DS3 to DS1 multiplexing.

Synchronous Optical Channel Service OC3 or OC12 Direct Trunked Transport cannot be terminated at end offices that are not identified as ADM equipped wire centers that provide OC3 to DS1 or OC12 to OC3 Add/Drop Multiplexing.

ESALT 2 Mbps, 10 Mbps or 50 Mbps Direct Trunked Transport cannot be terminated at end offices, host offices or tandem offices that are not identified as ESALT-equipped wire centers in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, Wire Center Information.

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- Switched Access Service (Cont'd) 6.
 - 6.1 General (Cont'd)
 - 6.1.3 Rate Categories (Cont'd)
 - (A) Local Transport (Cont'd)
 - **Direct Trunked Transport** (Cont'd) (2)

Additionally, DS1 Direct Trunked Transport cannot 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 and add/drop multiplexing functions are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, Wire Center Information.

Except as specified below for ESALT, Direct Trunked Transport

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rates, specified in Section 17.2.2(B), following, consist of a Direct Trunked Facility rate which is applied on a per mile basis and a Direct Trunked Termination rate which is applied at each end of each measured segment of the Direct Trunked Facility (e.g., at the end office, tandem, hub, ADM equipped wire center and serving wire center).

Direct Trunked Transport rates for ESALT, specified in Section 17.2.2(B), following, consist of (1) an ESALT Direct Trunked Facility (DTF) rate which is applied on a per facility basis based on the capacity ordered by the customer (i.e., 2 Mbps, 10 Mbps, or 50 Mbps) and on whether the ESALT DTF is provided entirely within the Telephone Company's operating territory or jointly provided with another telephone company to a serving wire center located outside of the Telephone Company's operating territory; and, (2) an ESALT Direct Trunked Termination (DTT) rate which is applied at each end of the ESALT DTF (i.e., at the serving wire center serving the customer's designated premises and either the end office, host office, or tandem office) at the same capacity as the capacity of the associated ESALT Direct Trunked Facility segment.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Local Transport (Cont'd)

(2) Direct Trunked Transport (Cont'd)

The type of ESALT Direct Trunked Facility (DTF) required will depend upon the configuration of the customer's service as follows:

- ESALT DTF-E1 is required when the ESALT SWC and SWC serving the customer designated premises are located within the Telephone Company's operating territory.
- ESALT DTF-E2 is required when the customer designated premises is located outside of the Telephone Company's operating territory in an adjacent operating territory and the ESALT is jointly provided with another telephone company.
- ESALT DTF-E3 is required when the customer designated premises is located outside of the Telephone Company's operating territory in a non-adjacent operating territory where the airline distance between the ESALT SWC and the SWC serving the customer designated premises is 50 airline miles or less and the ESALT is jointly provided with another telephone company.
- ESALT DTF-E4 is required when the customer designated premises is located outside of the Telephone Company's operating territory in a non-adjacent operating territory where the airline distance between the ESALT SWC and the SWC serving the customer designated premises is between 51 and 75 airline miles and the ESALT is jointly provided with another telephone company. When the customer designated premises is located in a non-adjacent operating territory, ESALT is not available when the airline distance between the SWC serving the customer designated premises and the ESALT SWC is greater than 75 airline miles.

When the Direct Trunked Facility mileage is zero, neither the Direct Trunked Facility rate nor the Direct Trunked Termination rate will apply.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Local Transport (Cont'd)

Direct Trunked Transport (Cont'd) (2)

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 recovers a portion of the costs of the network equipment that is necessary for the termination of each end of the Direct Trunked Facility.

The minimum period for which a High Capacity DS3, Synchronous Optical Channel, or Ethernet Switched Access Local Transport Direct Trunked Transport is provided is twelve months.

(3) **Tandem Switched Transport**

The Tandem Switched Transport rate elements recover a portion of the costs associated with a communications path between a tandem and an end office on circuits that are switched at a tandem switch.

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

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.1 General (Cont'd)
 - 6.1.3 Rate Categories (Cont'd)
 - (A) Local Transport (Cont'd)
 - (3) Tandem Switched Transport (Cont'd)

In those instances where an SSP equipped end office is capable of handling 800 traffic on a direct trunked basis but incapable of handling 800 series (other than the 800 service access code) traffic on a direct trunked basis, a full credit will be provided for tandem switched transport charges associated with FGC and FGD service for 800 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 800 series (other than the 800 service access code) traffic on a direct trunked basis. Those SSP equipped end offices that cannot accommodate direct trunking of originating 800 series (other than the 800 service access code) traffic are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

- (a) The Tandem Switching rate recovers a portion of the costs of switching traffic through an access tandem. The Tandem Switching rate specified in Section 17.2.2(C)(3), following, is applied on a per access minute per tandem basis for all originating (excluding toll free) 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.
- (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 Section 17.2.2(C)(1), following, is applied on a per access minute per mile basis for all originating (excluding toll free) and all terminating minutes of use routed over the facility.
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ACCESS SERVICE

- 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 Section 17.2.2(C)(2), following, is applied on a per access minute basis (for all originating (excluding toll free) and all 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, FGA dial tone office, host office, and the access tandem).
 - (d) The Joint Tandem Switched Transport rate specified in Section 17.2.2, following, is applied on a per originating toll free access minute per tandem basis in lieu of the Tandem Switching, Tandem Switched Facility, and Tandem Switched Termination rates and is only billed by the tandem company that performs the tandem switching function.

When the Tandem Switched Facility mileage is zero, neither the Tandem Switched Facility rate nor the Tandem Switched Termination rate will apply.

(4) <u>Multiplexing</u>

Multiplexing provides an arrangement for converting a single, higher capacity or bandwidth circuit to several lower capacity or bandwidth circuits.

When a derived channel is itself multiplexed to derive additional channels with a lesser capacity, this is referred to as cascade multiplexing. When cascade multiplexing occurs, a charge for the additional multiplexing function applies. When cascade multiplexing is performed at different hubbing locations, Direct Trunked Transport charges also apply between the hubs.

Multiplexing is only available at the wire centers identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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- 6. Switched Access Service (Cont'd)
 - 6.1 General (Cont'd)
 - 6.1.3 <u>Rate Categories</u> (Cont'd)
 - (A) <u>Local Transport</u> (Cont'd)
 - (4) <u>Multiplexing</u> (Cont'd)

The following multiplexing arrangements are offered for use with Switched Access Service.

- (a) DS3 to DS1 Multiplexing charges specified in Section 17.2.2(B)(3), following, apply when a High Capacity DS3 Entrance Facility or High Capacity DS3 Direct Trunked Transport 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.
- (b) DS1 to Voice Grade Multiplexing charges specified in Section 17.2.2(B)(3), following, apply when a High Capacity DS1 Entrance Facility or High Capacity DS1 Direct Trunked Transport 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.

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)

(5) Add/Drop Multiplexing

Add/Drop Multiplexing provides a type of multiplexing function in connection with Synchronous Optical Channel Service that allows lower level signals to be added or dropped from a high speed optical carrier channel within a Telephone Company wire center.

The Add/Drop Multiplexing Central Office Port charge specified in Section 17.2.2(B)(4), following, applies to the interface provided at a Telephone Company wire center for the purpose of adding or dropping lower capacity services from Synchronous Optical Channel Entrance Facilities or Direct Trunked Transport. Central Office Ports are available at the following speeds:

Central Office Port	Speed
OC3	155.52 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

OC12 service may only be multiplexed to OC3 channels.

When an OC3 channel is derived from an OC12 service and is further multiplexed to obtain DS3 service, a DS3 port charge will apply in addition to the OC3 port charge.

When a DS3 channel is derived from an OC3 service and is further multiplexed to obtain DS1 service, a DS3 to DS1 Multiplexing charge will apply in addition to the DS3 port charge.

When a DS1 channel is directly derived from an OC3 service, a DS1 port charge will apply.

When a DS1 channel is further multiplexed to a lower level signal, a DS1 to Voice Grade Multiplexing charge will also apply.

- 6. Switched Access Service (Cont'd)
 - 6.1 <u>General</u> (Cont'd)
 - 6.1.3 <u>Rate Categories</u> (Cont'd)
 - (A) <u>Local Transport</u> (Cont'd)
 - (5) <u>Add/Drop Multiplexing</u> (Cont'd)

Add/Drop Multiplexing is only available at wire centers identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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(6) <u>Customer Node</u>

A Customer Node charge specified in Section 17.2.2(B)(5), following, applies when the Telephone Company provides terminal equipment at the customer designated premises for termination of a Synchronous Optical Channel Entrance Facility. Such equipment may be used to convert the signal from an optical to electrical format. The Customer Node charge is determined by the level of optical service (i.e., OC3 or OC12) delivered to the premises. Each Customer Node must be configured with one or more Customer Premises Ports.

Customer Premises Port charges specified in Section 17.2.2(B)(6), following, apply in conjunction with the Customer Node charge. Each Customer Premises Port provides the interface to derive a lower capacity service at the customer premises. The type and quantity of ports is determined by the customer and is based on the type of Customer Node selected and the number of DS1, DS3, STS-1 and/or OC3 channels ordered.

Customer Premises Ports are available at the following speeds:

Customer Premises Port	Speed
OC3	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

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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)

(7) <u>Interface Groups</u>

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 Section 15.1.1, following.

(8) <u>Non-chargeable 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 Section 15.1.1(E), following.

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

In addition to the above, Shared SONET Interoffice Ring Transport (SSRIT) is available as a non-chargeable optional feature with High Capacity DS3 or Synchronous Optical Channel Local Transport service from wire centers identified in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. The SSRIT feature is set forth and described in Sections 7.10.3(E) and 7.11.3(C), following.

When a customer utilizes Signaling System 7 (SS7) Signaling, the following optional features are made available and are described in Section 6.10.1, following.

- Signaling System 7 (SS7) Signaling
- Calling Party Number
- Carrier Selection Parameter
- Charge Number Parameter
- Carrier Identification Parameter
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- 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)
 - (9) Chargeable Optional Features

Common Channel Signaling, Signaling System 7 (CS/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 Section 6.10.3, following.

Toll Free Database 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 Section 17.2.2(E), following, is assessed for each completed query returned from the Toll Free Database 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 and the results are transmitted to the next company in the call path. If the originating company transmits the results of the query, it will assess the query charge per call. However, when the originating company is unable to do so, the next company in the call path that is able to launch and transmit the results of the query will assess the query charge. Only one query charge per call may be assessed.

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 and 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)).

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Local Transport (Cont'd)

(9) Chargeable Optional Features (Cont'd)

When ordered for use with ESALT Direct Trunked Facility provided entirely within the Telephone Company's operating territory, the ESALT Real Time Class of Servcie/Quality of Service (RT CoS/QoS) option provides service performance commitments on transmissions using the Telephone Company's Ethernet local transport network. ESALT RT CoS/QoS is provided as set forth in Section 6.10.3(E), following.

When ordered for use with ESALT Entrance Facility, the ESALT Entrance Facility Protection (ESALT EFP) option provides backup protection using the Telephone Company's Ethernet local transport network. ESALT EFP is provided as set forth in Section 6.10.3(F), following.

(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.

(1) <u>Local Switching</u>

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, the terminations of calls at Telephone Company Intercept Operators or recordings, the STP costs, and the SS7 signaling function between the end office and the Signaling Transfer Point.

Local Switching does not apply to FGB and FGD Switched Access Services associated with Wireless Switching Centers (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)

Local Switching (Cont'd) (1)

Where end offices are appropriately equipped, international dialing may be provided as a capability associated with Local Switching which provides local dial switching for FGC and FGD. 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 are set forth in Section 17.2.3, following. For originating toll free minutes only, a different Local Switching rate is specified in Section 17.2.3, following. The application of these rates with respect to individual Feature Groups is as set forth in Section 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.

Common Switching (a)

Common Switching provides the local end office switching functions associated with the various access switching arrangements (i.e., Feature Groups). Common Switching arrangements provided for the various Feature Group arrangements are described in Sections 6.5 through 6.8, 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 Section 6.10.1, following.

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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)

(b) <u>Transport Termination</u>

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 non-chargeable optional termination arrangements. These optional terminating arrangements are described in Section 6.10.2, following.

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

(c) Line Termination

Line Termination provides for the terminations of end user lines in the local end office. There are two types of Line Terminations, 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 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. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(B) End Office (Cont'd)

(2) Information Surcharge

Information Surcharge rates are assessed to a customer based on the total number of access minutes. Information Surcharge rates are as set forth in Section 17.2.3(B), following. For originating toll free minutes only, a different Information Surcharge rate is specified in Section 17.2.3, following. The application of these rates with respect to individual Feature Groups is as set forth in Section 6.4.1(C), following.

(C) (C)

The Information Surcharge does not apply to FGB and FGD 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 Section 6.2.5, following.

(C) <u>Chargeable Optional Features</u>

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

(1) Interim NXX Translation

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-XXXX) 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 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) Interim NXX Translation (Cont'd)

A nonrecurring charge, as set forth in Section 17.2.1(B), 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 Section 17.4.1(A), 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 FGC and FGD is as set forth in Sections 6.4.1(B)(2) and 6.4.1(C)(2), following.

(2) Operator Transfer Services

Operator Transfer Service may be provided with FGC or FGD Switched Access Service at Telephone Company designated Operator Services location. Operator Transfer Service is an originating service. The rate is assessed per 0- call transferred to a customer's operator. An 0- call is considered transferred when the Telephone Company Operator activates the switch transferring the call to the designated customer and the customer acknowledges receipt.

In addition to the Operator Transfer Service charge described above and in Section 6.10.3(B), following, FGC and FGD Switched Access rates and charges, as set forth in Section 6.4.1(B)(1) and 6.4.1(C), following, will apply per minute of use for Operator Transfer Service.

Operator Transfer Service charges, provided for in this tariff, are applied only to those calls actually transferred by the Telephone Company to the customer's operator.

- 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)
 - (3) Toll Free Database Access Service

Toll Free Database 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 a toll free database 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.

A Basic or Vertical Feature Query charge, as set forth in Section 17.2.2(E), following, is assessed for each completed query returned from the database 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 and the results are transmitted to the next company in the call path. If the originating company transmits the results of the query, it will assess the query charge per call. However, when the originating company is unable to do so, the next company in the call path that is able to launch and transmit the results of the query will assess the query charge. Only one query charger per call may be assessed.

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 and Transport Area (LATA) in which the call originates.

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- 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)
 - (3) Toll Free Database Access Service (Cont'd)

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 FGC or FGD is as set forth in Section 6.4.1(C), following. (M)

Certain material currently on this page previously appeared on Original Page 6-29.

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6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

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 <u>Design Layout Report</u>

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.

6.2 <u>Undertaking of the Telephone Company</u>

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 carried 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

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ACCESS SERVICE

6. Switched Access Service (Cont'd)

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

6.2.2 <u>Transmission Specifications</u>

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 Section 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 Section 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 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 Section 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.

FGC and FGD trunks equipped for Operator Transfer Service are subject to FGC and FGD transmission specifications, respectively, unless otherwise specified.

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 (ICB).

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6. Switched Access Service (Cont'd)

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

6.2.4 Testing

(A) <u>Acceptance Testing</u>

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 1004 Hz 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 Section 13.3.1(A), following. Charges for these additional tests are set forth in Section 17.4.4, following.

6. Switched Access Service (Cont'd)

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

6.2.5 Determination of Number of Transmission Paths

For FGA and FGB, which are ordered on a per line or per trunk basis respectively, and FGC and FGD 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 FGC and FGD 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 Section 6.1.1(B), preceding, for the end offices for each Feature Group ordered from a customer's designated premises or from an IPG SWC when the customer uses FGD in conjunction with IPG as described in Section 16.4, following. 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 the end office switches only, or (3) the use of the 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.

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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) <u>Jurisdictional Reports</u>

When a customer orders Switched Access Service for both interstate and intrastate use, the customer is responsible for providing reports as set forth in Section 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 Section 2.3.12, preceding.

(B) <u>Code Screening Reports</u>

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, where technologically feasible, will be made available to the Telephone Company. These data will be used to monitor trunk group utilization and service performance and will be based on previously arranged intervals and format.

6.3.3 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, an estimated call volume, and the telephone number(s) to be used.

6. Switched Access Service (Cont'd)

6.3 <u>Obligations of the Customer</u> (Cont'd)

6.3.4 Short Duration Mass Calling Requirements (Cont'd)

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.

6.3.5 Call Signaling

Depending on the signaling system used by the customer in its network, the customer's facilities shall transmit the following call signaling information to the Telephone Company on traffic the customer's end users originate which is handed off for termination on the Telephone Company's network.

(A) Signaling System 7 (SS7) Signaling

When the customer uses SS7 signaling, it will transmit the Calling Party Number (CPN) or, if different from the CPN, the Charge Number (CN) information in the SS7 signaling stream.

(B) <u>Multi-Frequency (MF) Signaling</u>

When the customer uses MF signaling, it will transmit the number of the calling party or, if different from the number of the calling party, the Charge Number (CN) information in the MF Automatic Number Identification (ANI) field.

(C) <u>Internet Protocol (IP) Signaling</u>

When the customer uses IP signaling, it will transmit the telephone number of the calling party or, if different from the telephone number, the billing number of the calling party.

When the customer uses IP signaling in conjunction with ESALT, it will transmit call signaling data that must either: (1) conform to an active 10-digit North American Numbering Plan or directory number which is associated with the geographic location of the originating calling party (i.e., Calling Party Number and/or Automatic Number Identification) or (2) represent IP equivalent call signaling that is mutually agreed upon by the customer and Telephone Company at the time the customer places its order for ESALT.

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u>

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) <u>Recurring Rates</u>

- (1) Usage Rates for Switched Access Service are rates that apply on a per access minute 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) <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 types of nonrecurring charges that apply for Switched Access Service are: installation of service, Interim NXX Translation optional feature, and service rearrangements. These charges, with the exception of the Interim NXX Translation optional feature, are in addition to the Access Order Charge, as specified in Section 17.4.1(A), following.

(1) Installation of Service

For Entrance Facilities, a Local Transport nonrecurring installation charge, as set forth in Section 17.2.1(A), following, will be applied at the serving wire center for each Entrance Facility installed.

Except as specified below for ESALT, when Direct Trunked Transport is ordered to the end office, a Local Transport nonrecurring trunk activation charge, as set forth in Section 17.2.1(D), 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.

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

(B) Nonrecurring Charges (Cont'd)

(1) Installation of Service (Cont'd)

Except as specified below for ESALT, when Direct Trunked Transport is ordered to the access tandem, a Local Transport nonrecurring trunk activation charge, as set forth in Section 17.2.1(D), 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.

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 Section 17.4.1(A), following.

An ESALT Direct Trunked Termination nonrecurring charge, as specified in Section 17.2.1(F), following, will be applied per ESALT Direct Trunked Termination installed.

(2) <u>Interim NXX Translation Optional Feature</u>

This nonrecurring charge applies to the initial order for the installation of the Interim NXX Translation optional feature with FGC or FGD 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.

- 6. <u>Switched Access Service</u> (Cont'd)
 - 6.4 <u>Rate Regulations</u> (Cont'd)
 - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
 - (B) <u>Nonrecurring Charges</u> (Cont'd)
 - (2) <u>Interim NXX Translation Optional Feature</u> (Cont'd)

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) <u>Service Rearrangements</u>

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 Section 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 <u>Rate Regulations</u> (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)

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 charge to the customer 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.

- 6. <u>Switched Access Service</u> (Cont'd)
 - 6.4 <u>Rate Regulations</u> (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)

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 Section 17.4.1(A), following.

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 Section 17.4.1(A), following, will apply (with the exception of the addition of 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 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.

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 Section 17.2.1(C), following.

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)

(C) <u>Application of Rates</u>

Rates are applied either as premium or non-premium rates.

The application of these rates is dependent upon the Feature Group, type of Entrance Facility, and 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.

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 interstate MTS/WATS, and to all access minutes that originate or terminate at end offices equipped with equal access (i.e., FGD) capabilities. 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.

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
- Joint Tandem Switched Transport (N) (originating toll free minutes only) (N)

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6.4 <u>Rate Regulations</u> (Cont'd)

6.4.1 Description and Application of Rates and Charges (Cont'd)

(C) <u>Application of Rates</u> (Cont'd)

(2) Non-premium Rates

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
- Joint Tandem Switched Transport (N) (originating toll free minutes only) (N)

Non-premium rates (i.e., discounted access minute rates) apply to all FGA and FGB access minutes (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 Toll Free Database Access Service by customers who do not furnish interstate MTS/WATS.

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(3) Reserved for Future Use

(4) Reserved for Future Use

(5) Unmeasured FGA and FGB Access Services

Where originating and/or terminating measurement capability does not exist for FGA or FGB Switched Access Services provided to the first point of switching, the number of access minutes that will be assumed are as set forth, respectively, in Sections 6.5.4 and 6.6.4, following.

(6) <u>Reserved for Future Use</u> Transmittal No. 31

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- 6. Switched Access Service (Cont'd)
 - 6.4 <u>Rate Regulations</u> (Cont'd)
 - 6.4.1 <u>Description and Application of Rates and Charges</u> (Cont'd)
 - (C) <u>Application of Rates</u> (Cont'd)
 - (7) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7)</u> Network Connection 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.

(8) Toll Free Database Access Service

A Basic Query or Vertical Feature Query charge applies for each completed query that is returned from the toll free database 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 guery and the results are transmitted to the next company in the call path. If the originating company transmits the results of the query, it will assess the query charge per call. However, when the originating company is unable to do so, the next company in the call path that is able to launch and transmit the results of the query will assess the query charge. Only one query charge per call may be assessed. Query charges, as set forth in Section 17.2.2(E), 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 and when the query is completed.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.4 <u>Rate Regulations</u> (Cont'd)
 - 6.4.1 Description and Application of Rates and Charges (Cont'd)
 - (C) Application of Rates (Cont'd)
 - (8) Toll Free Database Access Service (Cont'd)

When FGC or FGD Switched Access Service is used for the provision of Access Service and the total minutes of use can 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 by end office and customer. For each end office a ratio will be developed and applied against the total minutes of use 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 series use EO-2 measures 3,000 minutes of 800 series use EO-3 measures 5,000 minutes of 800 series use 10,000 Total

- The tandem delivers 800 series usage to two customers:

IC-A has 4,000 minutes of use IC-B has 6,000 minutes of use

- The allocation ratio for EO-1 is 20%

2,000/10,000

- The minutes 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 <u>Rate Regulations</u> (Cont'd)

6.4.2 <u>Minimum Monthly Charge</u>

Switched Access Service is subject to a minimum monthly charge. The minimum monthly charge applies for the total capacity provided and is calculated as follows.

For usage rated Local Transport and End Office rate elements, the minimum monthly charge is the sum of the recurring charges set forth in Sections 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 Section 17.2.2, following, prorated to the number of days or major fraction of days based 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. 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.

6.4.4 <u>Moves</u>

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

- The point of termination at the customer designated premises
- The customer designated premises

The charges for the move 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 Section 17.4.1(A), following. There will be no change in the minimum period requirements.

6. Switched Access Service (Cont'd)

6.4 Rate Regulations (Cont'd)

6.4.4 Moves (Cont'd)

(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.

Local Information Delivery Services 6.4.5

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 Section 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.

6.4.6 Mileage Measurement

The mileage to be used to determine the monthly rate for Local Transport is calculated on the airline distance between the end office switch, which may be a Remote Switching Module, (where the call carried by Local Transport originates or terminates) and the customer's serving wire center or between an end office switch, which may be a Remote Switching Module, (where the call carried by Local Transport originates or terminates) and an IPG SWC when the customer uses FGD in conjunction with IPG as described in Section 16.4, following.

When 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 these methods are as set forth in (A) through (J) 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.

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.6 Mileage Measurement (Cont'd)

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, Wire Center Information (V&H coordinates).

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Mileage rates are as set forth in Section 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) Reserved for Future Use

(B) <u>Feature Group A – Originating Usage</u>

Direct Trunked Transport mileage for premium and non-premium rated access minutes in the originating direction over FGA 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 FGA switching dial tone is provided) and the customer's serving wire center for the Switched Access Service provided.

(C) Feature Group A – Terminating Usage

The Local Transport mileage for terminating FGA 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 FGA switching dial tone is provided). Tandem Switched Transport mileage will be measured between the first point of switching and the terminating end office.

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6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.6 <u>Mileage Measurement</u> (Cont'd)

(D) Feature Groups B, C and D – Alternate Traffic Routing

When the Alternate Traffic Routing optional feature is provided with FGB, FGC, or FGD, 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 Section 6.10.1(L), following, 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.

(E) Feature Group C – Multiple CDPs

When terminating FGC 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.

(F) <u>Feature Groups A, B, C and D – WATS</u>

The Tandem Switched Transport Facility for FGA, FGB, FGC and FGD Switched Access Service connected with Special Access Service at a WATS Serving Office will be measured between the WATS Serving Office (when measured access minutes of use are used) or between the FGA entry switch (when assumed minutes of use are used) and the serving wire center for the customer designated premises.

6. <u>Switched Access Service</u> (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.6 Mileage Measurement (Cont'd)

(G) <u>Feature Groups B and D – WSCs Directly Interconnected to Access Tandems</u>

The Local Transport mileage for FGB and FGD 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.

(H) Feature Groups B, C, and D – Remote Offices

The Local Transport mileage for FGB, FGC, and FGD 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 routed through a tandem to the Host Office, Direct Trunked Facility will be measured from the customer's 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.

(I) <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's serving wire center to Hub, Hub to Hub, and/or Hub to end office).

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.6 <u>Mileage Measurement</u> (Cont'd)

(J) FGD – Connected with Internet Protocol Gateway Access Service

When required, the Tandem Switched Facility mileage for FGD Switched Access Service connected with IPG will be measured as described below

- When the IPG SWC is located at the Telephone Company's tandem office and traffic is to be originated from or terminated to the end office, the Tandem Switched Facility mileage will be measured between the IPG SWC and the end office.
- When the IPG SWC is located at the Telephone Company's tandem office and traffic is to be originated from or terminated to a host/remote complex, the Tandem Switched Facility mileage will be measured in multiple segments. The first segment will be measured between the IPG SWC and the host office and the second segment will be measured between the host office and subtending remote office.
- When the IPG SWC is located at the Telephone Company's host office and traffic is to be originating from or terminating to the remote office, the Tandem Switched Facility mileage will be measured between the IPG SWC and the subtending remote office.

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's serving wire center to Hub, Hub to Hub, and/or Hub to end office).

6.4.7 Mixed Use

Mixed use occurs when Switched Access Service and Special Access Service are provided over the same High Capacity or Synchronous Optical Channel facilities through a common interface. The regulations governing the provision of Mixed Use Facilities are set forth in Section 5.2.4, preceding, and Section 7.2.7, following.

Mixed use also occurs when Ethernet Switched Access Local Transport and Ethernet Transport Service (ETS) are provided over the same ETS facilities through a common interface. The regulations governing the provision of Mixed Use Facilities for these services are set forth in Section 5.2.4, preceding, and Section 16.3.4(D), following

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ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.7 Mixed Use (Cont'd)

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 equal access 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 FGA 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 FGA 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.

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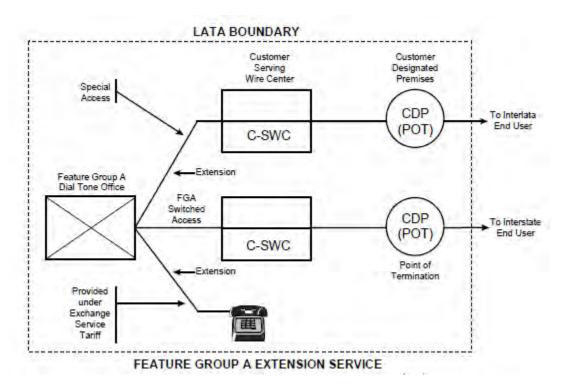
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6. Switched Access Service (Cont'd)

6.4 <u>Rate Regulations</u> (Cont'd)

6.4.9 Application of Rates for Feature Group A Extension Service

FGA 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 is located). FGA extensions within the same LATA and same state as the dial tone office are provided and charged under the Telephone Company's local and/or general exchange service tariffs. FGA 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 Section 17.3.3, following, will apply.



In the above example, two CDPs are utilized to better illustrate the concept. From a practical standpoint, both the Switched Access and Special Access Services could be routed via the same CDP.

6. <u>Switched Access Service</u> (Cont'd)

6.5 Description and Provision of Feature Group A (FGA)

6.5.1 Description

- (A) FGA Access, which is available to all customers, 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. 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 exchange. 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 Section 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 which are specified by the customer's order for service.
- (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 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)
 - 6.5.1 Description (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 of 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 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 apply. Additionally, calls to Directory Assistance are subject to the Directory Assistance Service Call rate set forth in Section 17.2.5(A), following

- 6. Switched Access Service (Cont'd)
 - 6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)
 - 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) Except as provided for in Section 6.1.3(A)(1), preceding, 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.

(K) FGA service may not be used in conjunction with ESALT.

6. Switched Access Service (Cont'd)

6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)

6.5.2 Optional Features

Following are the various non-chargeable optional features that are available in lieu of, or in addition to, the standard features provided with FGA. 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 Section 6.10.1, following.

- (1) Call Denial on Line or Hunt Group
- (2) Service Code Denial on Line or Hunt Group
- (3) Hunt Group Arrangement
- (4) Uniform Call Distribution Arrangement
- (5) Nonhunting Number for Use with Hunt Group or Uniform Call Distribution Arrangement
- (6) Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Services
- (7) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Service
- (8) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS-Type Services
- (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 <u>Description and Provision of Feature Group A (FGA)</u> (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 dual tone multifrequency address signaling and loop start supervisory signaling
 - (4) Two-way operation with dual 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 Section 15.1.1(E), following)
 - (2) Customer Specified Entry Switch Receive Level (as set forth in Section 15.1.1(E), following)

6. Switched Access Service (Cont'd)

6.5 <u>Description and Provision of Feature Group A (FGA)</u> (Cont'd)

6.5.3 Optional Features Provided In Local Tariffs

Certain other features which may be available in connection with FGA (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.

6.5.4 Measuring Access Minutes

Customer FGA 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 Section 6.7.4, following, for FGC.

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, whichever is recognized first by the first point of switching.

Switched Access Service (Cont'd) 6.

6.5 Description and Provision of Feature Group A (FGA) (Cont'd)

6.5.4 Measuring Access Minutes (Cont'd)

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.

Assumed minutes are used for FGA services which originate or terminate in end offices not equipped with measurement capabilities and where actual usage is unavailable from another local exchange telephone company. In such cases, the assumed minutes are the chargeable access minutes.

Actual minutes of use are required in an end office where at least on access customer in that office has in excess of 24 FGA lines. Actual minutes for that end office must be obtained from measurement equipment installed in the end office or obtained from another local exchange telephone company willing and able to provide actual measurement data to the Telephone Company. During the interim period when the Telephone Company is installing measurement equipment or working with an alternate source to obtain actual data, access customer's FGA lines totaling more than 24 will be billed using assumed minutes Upon 60 days advance notification of the Telephone Company's conversion to actual measurement, all FGA customers, regardless of line size, served by that end office would be billed based upon actual minutes.

Where originating and terminating measurement capability does not exist for FGA provided to the first point of switching, the number of access minutes will be assumed as set forth in Section 17.2.6(A), 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 Section 17.2.6, 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.

- 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)

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 Section 17.2.6, 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 Section 17.2.6, following. If the total exceeds the assumed minutes set forth in Section 17.2.6, 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 Section 17.2.6, 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 Section 17.2.6(B), following, will be assigned for originating calling only lines and assumed terminating minutes, as set forth in Section 17.2.6(C), following, will be assigned for terminating calling only lines.

6. <u>Switched Access Service</u> (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 Sections 17.2.6(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 4,195)	Actual	N/A	Actual	0
Both Originating and Terminating (originating measurement equal or less than 4,195)	Actual	N/A	Actual	0 to 2,685*
Both Originating and Terminating (terminating measurement greater than 4,195)	Actual	0	Actual	N/A
Both Originating and Terminating (terminating measurement equal or less than 4,195)	Actual	0 to 1,510*	Actual	N/A

^{*} Sum of actual and assumed cannot exceed 4,195. Reduce assumed minutes of use if necessary.

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)

Notwithstanding the preceding, when FGA is used for the provision of WATStype service where measurement capability exists at the WATS Serving Office but not at the FGA 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 assumed or the measured usage, whichever is greater.

Testing Capabilities 6.5.5

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 Section 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 Section 13.3.1(A), following.

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- 6. <u>Switched Access Service</u> (Cont'd)
 - 6.6 <u>Description and Provision of Feature Group B (FGB)</u>

6.6.1 <u>Description</u>

- FGB Access, which is available to all customers, provides trunk side (A) 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 exchange. 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 or WATS-type services. Special Access Services are ordered as set forth in Section 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 Sections 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 Description (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(s) will be assigned to the customer for the customer's domestic communications and another will be assigned to the customer for its international communications. 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.
 - (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 the 950-XXXX access code, 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 FGB, FGC and FGD.

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)

- (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) FGB service may not be used in conjunction with ESALT.
- (J) Reserved for future use.
- (K) 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 Section 6.4.6(G), preceding.

6.6.2 Optional Features

Following are descriptions of the various non-chargeable optional features that are available in lieu of, or in addition to, the standard features provided with FGB. 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 Options

Descriptions of the common switching optional features are set forth in Section 6.10.1, following.

- (1) Automatic Number Identification (ANI)
- (2) Up to 7 Digit Outpulsing of Access Digits to Customer
- (3) Band Advance Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services
- (4) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services
- (5) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services

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- 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)
 - (A) <u>Common Switching Options</u> (Cont'd)
 - (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
 - (B) <u>Transport Terminations Options</u>
 - (1) Rotary Dial Station Signaling
 - (C) <u>Local Transport Options</u>
 - (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 Section 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 <u>Design and Traffic Routing</u>

For FGB, 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 equal access 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 Section 15.1.1, following.

(x) (x)

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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 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.

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 FGB provided to the first point of switching, the number of access minutes will be assumed, as set forth in Section 17.2.6(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 assumed usage, as set forth in Section 17.2.6(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 Section 17.2.6, 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 Section 17.2.6(D), following. If the total exceeds the assumed minutes set forth in Section 17.2.6, 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 Section 17.2.6(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 Section 17.2.6(E), following, will be assigned for originating calling only trunks and assumed terminating minutes, as set forth in Section 17.2.6(F), following, will be assigned for terminating calling only trunks.

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6. <u>Switched Access Service</u> (Cont'd)

6.6 <u>Description and Provision of Feature Group B (FGB)</u> (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 Sections 17.2.6(D), (E), and (F), following.

Service Ordered As	Can Measure Originating	Can't Measure Originating	Can Measure Terminating	Can't Measure Terminating
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 8,700)	Actual	N/A	Actual	0
Both Originating and Terminating (originating measurement equal or less than 8,700)	Actual	N/A	Actual	0 to 5,568*
Both Originating and Terminating (terminating measurement greater than 8,700)	Actual	0	Actual	N/A
Both Originating and Terminating (terminating measurement equal or less than 8,700)	Actual	0 to 3,132*	Actual	N/A

^{*} Sum of actual and assumed cannot exceed 8,700. Reduce assumed minutes of use if necessary.

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)

Notwithstanding the preceding, when FGB is used for the provision of WATS or WATS-type service where measurement capability exists at the WATS Serving Office but not at the FGB 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 access minutes per trunk per month will be assumed or the measured usage, whichever is greater.

When FGB 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 calculate 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 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 Section 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 Section 13.3.1(A), following.

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.7 <u>Description and Provision of Feature Group C (FGC)</u>

6.7.1 Description

- (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 and on the FGC LEC IntraLATA Toll Network. Originating FGC Access is available to all customers when used to provide the Interim NXX Translation optional feature or Toll Free Database 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 Toll Free Database service, but only for purposes of testing. Existing FGC Access will be converted to FGD Access when FGD Access becomes available in an end office, except for the FGC LEC IntraLATA Toll Network. 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 Section 5.2, preceding.
- (B) FGC switching is provided at all end office switches unless FGD end office switching is provided in the same office. When FGD switching is available, FGC switching will not be provided, except for the FGC LEC IntraLATA Toll Network. FGC is provided at Telephone Company end office switches on a direct trunk basis or via Telephone Company designated access tandem switches. FGC switching is furnished to providers of MTS and WATS and on the FGC LEC IntraLATA Toll Network. Additionally, originating FGC switching is available to all customers when used to provide the Interim NXX Translation optional feature or Toll Free Database service. Terminating FGC switching is available to all customers who are not MTS and WATS providers only when such terminating access is for purposes of testing FGC facilities provided in conjunction with the Interim NXX Translation optional feature or Toll Free Database 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.

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- Switched Access Service (Cont'd) 6.
 - 6.7 Description and Provision of Feature Group C (FGC) (Cont'd)
 - 6.7.1 Description (Cont'd)
 - FGC is provided with multifrequency address signaling except in certain (D) 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. or out of band SS7 signaling, where technically feasible. 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.
 - FGC switching, when used in the terminating direction, may be used to (F) access valid NXXs in the LATA, time or weather announcement services of the Telephone Company, community information services of an information provider, and other customer's 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.

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.7 <u>Description and Provision of Feature Group C (FGC)</u> (Cont'd)
 - 6.7.1 Description (Cont'd)
 - (F) (Cont'd)

FGC Calls in the terminating direction will not be completed to the 950-XXXX access code, local operator assistance (0- and 0+), Directory Assistance (411 and 555-1212), service codes 611 and 911 and 101XXXX access codes. FGC may not be switched, in the terminating direction, to Switched Access Service FGB, FGC or FGD.

- (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 Toll Free Database 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 Toll Free Database traffic.
- (I) Operator Transfer Service may be provided with FGC Switched Access Service at Telephone Company designated Operator Services locations. The Telephone Company will provide Operator Transfer Service for calls originating from telephone numbers associated with exchange service lines in end offices subtending the Operator Services location. Operator Transfer Service is provided as set forth in Section 6.10.4, following.
- (J) 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 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.
- (K) FGC service may not be used in conjunction with ESALT.

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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 non-chargeable and chargeable optional features that are available in lieu of, or in addition to, the standard features provided with FGC. Non-chargeable 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 Section 6.10.1, following.

- (1) Automatic Number Identification (ANI)
- (2) Signaling Options
 - (a) Delay Dial Start-Pulsing Signaling
 - (b) Immediate Dial Pulse Address Signaling
 - (c) Dial Pulse Address Signaling
- (3) Service Class Routing
- (4) Alternate Traffic Routing
- (5) Trunk Access Limitation
- (6) Band Advance Arrangement Associated with Special Access Service 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) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS Service
- (9) Uniform Call Distribution Arrangement for Use with Special Access Service Utilized in the Provision of WATS Services

- 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 (Cont'd)
 - (A) <u>Common Switching Options</u> (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) <u>Operator Trunk Coin, Non-Coin, or Combined Coin and Non-Coin</u>

The Operator Trunk option is set forth in Section 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 Section 15.1.1, following.

(2) Signaling System 7 (SS7)

The SS7 optional feature allows the customer to send and receive signals for out of band call set up and is available with FGC. 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) <u>Multifrequency Address Signaling</u>
- (4) <u>Calling Party Number (CPN)</u>
- (5) <u>Charge Number Parameter (CNP)</u>

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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 (Cont'd)

(C) Local Transport Options (Cont'd)

(6) Clear Channel Capability

The Clear Channel Capability optional feature, due to its technical nature, is set forth in Section 15.1.1, following.

(D) <u>Chargeable Optional Features</u>

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

The Interim NXX Translation optional feature is set forth in Section 6.10.3(A), following.

(2) Operator Transfer Service

The Operator Transfer Service optional feature is set forth in Section 6.10.3(B), following.

(3) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7)</u> <u>Network Connection Service (CCSNC)</u>

The CCSNC optional feature is provided as set forth in Section 6.10.3(C), following.

(4) 800 Data Base Access Service

The 800 Data Base Access Service optional feature is provided as set forth in Section 6.10.3(D), following.

6.7.3 <u>Design and Traffic Routing</u>

For FGC, the Telephone Company shall design and determine the routing of Switched Access Service. Additionally, for Tandem Switched 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.

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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

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 minutes are derived from recorded minutes in the following manner:

- Step 1: Obtain recorded originating minutes and messages from the appropriate recording data.
- 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, toll free, 900, and directory assistance from a sample study which analyzes the ultimate completion status of the total attempts which receive acknowledgment 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.

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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 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.

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.

Originating Usage

For originating calls over FGC, provided with Multi-Frequency Signaling, 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 Service 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.

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

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.

For terminating calls over FGC provided with Multi-Frequency Signaling, 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 FGC Switched Access Service to meet the blocking probability criteria as set forth in (A) and (B), following.

(A) For FGC, 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.

- 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) 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) 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.
 - (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:

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 am and 11:00 pm Per Trunk Group				
-	15-20	11-14	7-10	3-6	
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	Measured Blocking Thresholds in the Time				
Transmission Paths	Consistent Busy Hour for the Number of Measurements				
Per Trunk Group	Taken Between 8:00 am and 11:00 pm Per Trunk Group				
	15-20	11-14	7-10	3-6	
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 Section 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 Section 13.3.1(A), following.

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6. Switched Access Service (Cont'd)

6.8 <u>Description and Provision of Feature Group D (FGD)</u>

6.8.1 Description

- (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 Section 5.2, preceding. Internet Protocol Gateway Access Service (IPG), as set forth in Section 16.4, following, utilized for connection with FGD at Telephone Company designated IPG SWCs, is ordered as set forth in Section 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 equal access 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-pulsing 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.
- (E) 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.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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- 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)
 - (E) (Cont'd)

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 the 950-XXXX access code, local operator assistance (0- and 0+), Directory Assistance (411 and 555-1212), service codes 611 and 911 and 101XXXX access codes. FGD may not be switched, in the terminating direction, to Switched Access Service FGB, FGC or FGD.

- (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.
- (G) The access code for FGD switching is a uniform access code of 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 Section 13.4, following.

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ACCESS SERVICE

- 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) (Cont'd)

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-XXXXX, 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 designated premises.

- (H) FGD switching will be arranged to accept calls from telephone exchange service locations without the need for dialing the 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 Toll Free Database 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 Toll Free Database 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 Toll Free Database traffic.
- (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.

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- 6. Switched Access Service (Cont'd)
 - 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)
 - 6.8.1 Description (Cont'd)
 - (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 Section 6.4.6(G), preceding.
 - (L) Operator Transfer Service (forwarding of 0- calls) may be provided with FGD Switched Access Service at Telephone Company designated Operator Services locations.

The Telephone Company will provide Operator Transfer Service for calls originating from telephone numbers associated with exchange service lines in end office subtending the Operator Services location. Operator Transfer Service is provided as set forth in Section 6.10.4, following.

- (M) For FGD Switched Access Service between an end user's premises and an IPG SWC, the customer will be billed the applicable Local Switching, Information Surcharge, and Tandem Switched Transport premium rate elements for its FGD usage. The mileage used to determine the monthly rate for the Tandem Switched Facility, when required, is as set forth in Section 6.4.6(J), preceding.
- (N) For FGD Switched Access Service between an end user's premises and an ESALT SWC, the customer will be billed the applicable Local Switching, Information Surcharge, and Tandem Switched Transport premium rate elements for its FGD usage. The mileage used to determine the monthly rate for the Tandem Switched Facility, when required, is as set forth in Section 6.4.6, preceding.

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

Following are the various non-chargeable and chargeable optional features that are available in lieu of, or in addition to, the standard features provided with FGD. Non-chargeable 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 Section 6.10.1, following.

- (1) Automatic Number Identification (ANI)
- (2) Service Class Routing
- (3) Alternate Traffic Routing
- (4) Trunk Access Limitation
- (5) Call Gapping Arrangement
- (6) International Carrier Option
- (7) Band Advance Arrangement for Use with Special Access Service Utilized in the 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) Hunt Group Arrangement for Use with Special Access Service Utilized in the Provision of WATS or WATS-Type Services
- (10) 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)
 - 6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)
 - 6.8.2 Optional Features (Cont'd)
 - (A) <u>Common Switching Options</u> (Cont'd)
 - (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) Digital Switched 56 Service
 - (B) <u>Transport Termination Options</u>
 - (1) Operator Trunk Full Feature

The Operator Trunk optional feature is set forth in Section 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 Section 15.1.1, following.

(2) Signaling System 7 (SS7)

The SS7 optional feature allows the customer to send and receive signals for out of band call set up and is available with FGD. 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) <u>Charge Number Parameter (CNP)</u>
- (6) <u>Carrier Selection Parameter (CSP)</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)

(C) <u>Local Transport Options</u> (Cont'd)

(7) <u>Clear Channel Capability</u>

The Clear Channel Capability optional feature, due to its technical nature, is set forth in 15.1.1, following.

(8) <u>Carrier Identification Parameter (CIP)</u>

(D) <u>Chargeable Optional Features</u>

(1) Interim NXX Translation

The Interim NXX Translation optional feature is set forth in Section 6.10.3(A), following.

(2) <u>ESALT Real Time Class of Service/Quality of Service (RT CoS/QoS)</u>

The ESALT RT CoS/QoS optional feature is set forth in Section 6.10.3(E), following.

(3) ESALT Entrance Facility Protection (EFP)

The ESALT EFP optional feature is set forth in Section 6.10.3(F), following.

(4) Operator Transfer Service

The Operator Transfer Service optional feature is set forth in Section 6.10.3(B), following.

(5) <u>Common Channel Signaling/Signaling System 7 (CCS/SS7)</u> Network Connection Service (CCSNC)

The CCSNC optional feature is provided as set forth in Section 6.10.3(C), following.

(6) 800 Data Base Access Service

The 800 Data Base Access Service optional feature is provided as set forth in Section 6.10.3(D), following.

(x)

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6. Switched Access Service (Cont'd)

6.8 <u>Description and Provision of Feature Group D (FGD)</u> (Cont'd)

6.8.3 Design and Traffic Routing

For FGD, the Telephone Company shall design and determine the routing of Tandem Switched Transport service, including the selection of the first point of switching and the selection of facilities from the interface to any switching point and to the end offices 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 FGD 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 are based on standard engineering methods, available facilities and equipment, and actual traffic patterns. 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 equal access arrangements are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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 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.

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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 (Cont'd)

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 Service 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 call 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.

(x)

(x)

(x)

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6. <u>Switched Access Service</u> (Cont'd)

6.8 <u>Description and Provision of Feature Group D (FGD)</u> (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 Multi-Frequency 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 FGD Switched Access Service to meet the blocking probability criteria as set forth in (A) and (B) following.

- (A) For FGD, 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 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.
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- 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) 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.
 - (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:

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 am and 11:00 pm Per Trunk Group			
-	15-20	11-14	7-10	3-6
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	Measured Blocking Thresholds in the Time				
Transmission Paths	Consistent Busy Hour for the Number of Measurements				
Per Trunk Group	Taken Between 8:00 am and 11:00 pm Per Trunk Group				
	15-20	11-14	7-10	3-6	
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%	

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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 FGD 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 Section 17.2.2(D), 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	1%	1/2%
1-2	7.0%	4.5%
3-4	5.0%	3.5%
5-6	4.0%	2.5%
7 or greater	3.0%	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 <u>Description and Provision of Feature Group D (FGD)</u> (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 Section 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 Section 13.3.1(A), 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 GR-905-CORE.

(x)

6.9 Reserved for Future Use

6.10 Chargeable and Non-chargeable 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, Interim NXX Translation options or Operator Transfer Service option. Local Transport options associated with Common Channel Signaling Network Connection Service (CCSNC) are described in Section 6.10.1, following. All other Local Transport options, due to their technical nature, are described in 15.1.1, following.

6.10.1 <u>Common Switching Non-chargeable Optional Features</u>

The following table shows the Feature Groups with which the optional features are available.

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6. <u>Switched Access Service</u> (Cont'd)

6.10 Chargeable and Non-chargeable Optional Features (Cont'd)

6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)

			Available Feature Groups			
	<u>Option</u>	A	В	C	D	
	 -					
A)	Call Denial on Line or Hunt Group	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					
	Access Service Utilized in the Provision of					
	WATS or WATS-Type Services	X	X	X	X	
Q)	End Office End User Line Service Screening 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					
	Access Service Utilized in the Provision of					
~.	WATS or WATS-Type Services	X	X	X	X	
S)	Uniform Call Distribution Arrangement for					
	Use 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					
	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			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	
AA)	Flexible Automatic Number Identification (Flex ANI)				X	
AB)	Carrier Identification Parameter (CIP)				X	
, ,,,	carrier administration randictor (CII)				2 1	

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6. Switched Access Service (Cont'd)

6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)

6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)

(A) Call Denial on Line or Hunt Group

This option allows for the screening of terminating FGA 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. Arrangements 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 FGA.

(B) <u>Service Code Denial on Line or Hunt Group</u>

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 FGA.

(C) <u>Hunt Group Arrangement</u>

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 FGA. All FGA 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).

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (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 FGA.

(E) <u>Nonhunting Number for Use with Hunt Group or Uniform Call Distribution Arrangement</u>

This option provides 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 FGA.

- (F) <u>Automatic Number Identification (ANI)</u>
 - (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 FGB and FGC. 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 FGB, or when an ANI failure has occurred. Seven digit ANI is not available with SS7 Signaling.

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)
 - (F) Automatic Number Identification (ANI) (Cont'd)
 - (3) The ten digit ANI telephone number is only available with FGD. The ten digit ANI telephone number consists of the Number 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.
 - (4) With FGC, 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:

- 6. Switched Access Service (Cont'd)
 - 6.10 Chargeable and Non-chargeable Optional Features (Cont'd)
 - 6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)
 - Automatic Number Identification (ANI) (Cont'd) (F)
 - (5) (Cont'd)
 - (e) Coinless station, hospital, inmate, etc. call which requires special screening or handling by the customer; and.
 - Call is an Automatic Identified Outward Dialed (AIOD) (f) 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 FGB, FGC, and FGD.

- (6) Additional ANI information digits are available with FGD also. They include:
 - (a) InterLATA restricted - telephone number is identified
 - (b) InterLATA restricted - hotel/motel line;
 - (c) InterLATA restricted - coinless, hospital, inmate, etc.,

These information digits will be transmitted as agreed to by the customer and the Telephone Company.

Flexible ANI is an enhancement to ANI and is offered as a Common Switching Non-chargeable Optional Feature of FGD as described in 6.10.1(AA), following.

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (F) <u>Automatic Number Identification (ANI)</u> (Cont'd)
 - (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 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.

- (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.

6. Switched Access Service (Cont'd)

6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)

6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)

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

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. This feature is available with FGB.

(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 FGC.

(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 FGC.

(J) <u>Dial Pulse Address Signaling</u>

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 FGC.

6. Switched Access Service (Cont'd)

6.10 Chargeable and Non-chargeable Optional Features (Cont'd)

6.10.1 Common Switching Non-chargeable Optional Features (Cont'd)

(K) <u>Service Class Routing</u>

This option provides the capability of directing originating traffic from an end office 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+) or Service Access Code (e.g., 900). It is provided in suitably equipped end office or access tandem switches. It is available with FGC and FGD.

(L) <u>Alternate Traffic Routing</u>

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 FGB, FGC, and FGD.

(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 FGC and FGD.

6. Switched Access Service (Cont'd)

6.10 Chargeable and Non-chargeable Optional Features (Cont'd)

6.10.1 Common Switching Non-chargeable 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 FGD equipped end offices and is available only with FGD.

(O) International Carrier Option

This option allows for FGD 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 only with FGD

(P) <u>Band Advance Arrangement for Use with Special Access Service</u> <u>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 FGA, FGB, FGC and FGD.

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (Q) End Office End User Line Service Screening for Use with Special Access Service Utilized in the Provision of WATS and 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 FGC and FGD.

(R) <u>Hunt Group Arrangement for Use with Special Access Service Utilized</u> in the Provision of WATS or WATS-Type Services

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 Serving Offices. It is available with FGA, FGB, FGC and FGD.

(S) <u>Uniform Call Distribution Arrangement for Use with Special Access</u> Service Utilized in 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 Services utilized in the provision of WATS or WATS-type Services in the hunt group. This feature is only provided in Telephone Company designated WATS Serving Offices, where available. It is available with FGA, FGB, FGC and FGD.

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 Common Switching Non-chargeable Optional Features (Cont'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. This feature is only provided in Telephone Company designated WATS Serving Offices, where available. It is available with FGA, FGB, FGC and FGD.

(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 FGC and FGD 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.

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- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (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. This feature is available with FGC and FGD and will be provided in accordance with the SS7 Interconnect specifications described in Technical Reference GR-905-CORE.

(x)

(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.

(1) Restrictions on Use and Sale of CPN

- (a) Interstate 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 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.

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- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (X) Calling Party Number (CPN) (Cont'd)
 - (1) <u>Restrictions on Use and Sale of CPN</u> (Cont'd)
 - (b) Interstate 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 and 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 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (Z) Charge Number Parameter (CNP)
 - (1) The CNP is equivalent to the existing ten digit 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) Interstate 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 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) Interstate 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.

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- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)
 - (AA) Flexible Automatic Number Identification (Flex ANI)

Flex ANI is an optional feature that enhances the existing ANI optional feature described in Section 6.10.1(F), preceding, by allowing 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., 27 for pay telephones requiring central office coin supervision capacity, 29 for prison/inmate pay telephones, and 70 for pay telephones not requiring central office coin supervision). Flex ANI can also be used to provide Originating Line Number Screening (OLS) service. OLS service is described in Section 13.10, following.

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. The information digits are outpulsed by the switching system along with the directory number from the originating end office 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 NANP 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.

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Issued: June 16, 2016

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ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)

6.10.1 <u>Common Switching Non-chargeable Optional Features</u> (Cont'd)

(AB) Carrier Identification Parameter (CIP)

Carrier Identification Parameter (CIP) provides for the automatic transmission of the Carrier Identification Code (CIC) to the customer designated premises for FGD calls originating in the LATA. The CIC is included in the SS7 signaling information provided to the customer when the call originates from a presubscribed line or when the end user dials the customer's 101XXXX access code. CIP is available from suitably equipped end office and access tandems as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, when used in conjunction with Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC) as described in Section 6.10.3(C), following, and Signaling System 7 Signaling as described in Section 6.10.1(W), preceding.

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 FGB, 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 FGC and is provided in Telephone Company electronic end offices and other Telephone Company end offices where equipment is available. It is provided as a trunk type of Transport Termination.

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6. Switched Access Service (Cont'd)

6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)

6.10.2 <u>Transport Termination Non-chargeable Optional Features</u>

(B) Operator Trunk - Coin, Non-Coin, or Combined Coin and Non-Coin (Cont'd)

(1) <u>Coin, Non-Coin</u>

This arrangement provides for initial coin return control, except in the case of non-coin, and routing of 0+, 0-, or 1+ 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.

(2) <u>Combined Coin and Non-Coin</u>

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 FGD 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 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)

6.10.3 Chargeable Optional Features

(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 Service Access Code 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 originated 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 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 Section 17.2.1(B), following.

(B) Operator Transfer Service

At the option of the customer, Operator Transfer Service as specified following, is available for use with FGC and FGD Switched Access Service. Operator Transfer Service is ordered as set forth in Section 5.2., preceding, and is provided to the customer via separate FGC or FGD trunks dedicated to Operator Transfer Service traffic.

(x)

ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.3 Chargeable Optional Features (Cont'd)
 - (B) Operator Transfer Service (Cont'd)

Operator Transfer Service is an arrangement in which Telephone Company operators transfer 0 minus (0-) calls (calls for which the end user dials 0 with no additional digits) to the customer designated by the end user.

The operator transfer function will be performed in the following manner:

- The Operator answers the 0- call.
- Initially, the Operator will suggest that the end user dial the customer on a direct basis. If the end user insists that the Operator transfer the call, the Operator will ask the end user to identify the desired customer and will then transfer the call as directed.
- If the end user has no preference, or the identified customer has not subscribed to Operator Transfer Service, the end user will be asked to select from a list of available customers.

The list of available Operator Transfer Service customers will be updated monthly. The order in which customers will be read to end users will be initially determined by the sequence in which customers have ordered the Operator Transfer Service. For each subsequent month, following the initial order for Operator Transfer Service, the customer in the first position on the list will be moved to the last position on the list. All other customers on the list will be moved up one position (e.g. 3rd to 2nd, 2nd to first, etc.). New Operator Transfer Service customers will initially be placed at the bottom of the list of customers.

0 minus pay telephone coin calls will be transferred to the end user designated customer. In order to accept coin sent- paid calls, the customer must order signaling as specified in GR-506-CORE and TR-NPL-000258.

The customer may receive inband, multi-wink, or expanded inband coin control signaling, where available, from end offices served by an Operator Services Access Point. Different signaling types cannot be mixed on a signal trunk group.

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- Switched Access Service (Cont'd) 6.
 - 6.10 Chargeable and Non-chargeable Optional Features (Cont'd)
 - 6.10.3 Chargeable Optional Features (Cont'd)
 - (B) Operator Transfer Service (Cont'd)

All nonrecurring and usage sensitive rates and charges normally applicable to FGC or FGD apply to Operator Transfer Service. Additionally, a charge as specified in Section 6.1.3(C)(2), preceding, and Section 17.2.7, following, is assessed the customer per 0- call transferred.

Common Channel Signaling/Signaling System 7 (CCS/SS7) Network (C) Connection Service (CCSNC)

Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection Service (CCSNC), which is available with FGC and FGD, where technically feasible, as designated in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, 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.

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 Kbps 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 GR-905-CORE, 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 Section 17.2.2(F), following.

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Effective: July 1, 2016

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6.10 Chargeable and Non-chargeable Optional Features (Cont'd)

6.10.3 Chargeable Optional Features (Cont'd)

(D) Toll Free Database Access Service

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Toll Free Database Access Service is provided with FGC or FGD 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 a toll free database 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.

(T)

The manner in which Toll Free Database 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:

(T)

- When Toll Free Database Access Service originates at an end office equipped with Service Switching Point (SSP) capability for querying centralized databases 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.

(T)

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When Toll Free Database 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 databases.

(T)

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- When Toll Free Database Access Service originates at an end office equipped with SSP capability that is not capable of accommodating direct trunking of originating 800 series (other than the 800 service access code) calls, the 800 series (other than the 800 service access code) 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 databases.

(T)

Query charges as set forth in Section 17.2.2(E), following, are in addition to those charges applicable for the FGC or FGD Switched Access Service.

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ACCESS SERVICE

- 6. Switched Access Service (Cont'd)
 - 6.10 Chargeable and Non-chargeable Optional Features (Cont'd)
 - 6.10.3 Chargeable Optional Features (Cont'd)
 - (D) Toll Free Database Access Service (Cont'd)

The Federal Communications Commission has concluded that hoarding, defined as the acquisition of more toll free numbers than one intends to use for the provision of toll free service, as well as the sale of a toll free number by a private entity for a fee, is contrary to the public interest in the conservation of the scarce toll free number resource and contrary to the FCC's responsibility to promote the orderly use and allocation of toll free numbers.

(E) <u>Ethernet Switched Access Local Transport Real Time Class of Service/Quality of Service (ESALT RT CoS/QoS)</u>

Where suitable facilities exist, the ESALT RT CoS/QoS option will be available for use on an ESALT Direct Trunked Facility (DTF). This optional arrangement is available only on that portion of the ESALT DTF provided by the Telephone Company within its operating territory. The ESALT RT CoS/QoS option is not available for use with jointly provided ESALT.

When ordered by the customer, the Telephone Company's network will transport the customer's traffic across its network to meet the frame delay, inter frame delay variation and frame loss ratio parameters specified in the following Technical References:

- IEEE Standard 802.1D-2004, Sections 7, 9, 17 and Annex G provided the customer's CPE populates the user priority value field with a value of 6; and
- Implementation Agreement MEF 23.1, January 2012, Table 7, Label H, Regional Performance Tier.

The capacity ordered for the ESALT RT CoS/QoS option must be equal to the full capacity of the associated ESALT DTF.

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- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.3 Chargeable Optional Features (Cont'd)
 - (E) <u>Ethernet Switched Access Local Transport Real Time Class of Service/Quality of Service (ESALT RT CoS/QoS) (Cont'd)</u>

When one or more of the ESALT RT CoS/QoS performance criteria specified in the Technical References listed above is not met, the customer reports the performance failure to the Telephone Company and the performance failure does not result in a service interruption of the customer's ESALT, the following provisions will apply in lieu of the credit allowance provisions for service interruptions specified in Section 2.4.4, preceding.

after receipt of the trouble report from the customer or when the Telephone Company determines during its trouble investigation that

the customer's equipment caused the performance failure.

4, preceding.

No credit will be applied for the performance failure when the Telephone Company restores the customer's service to the required ESALT RT CoS/QoS performance criteria levels within four hours

(x)

When the Telephone Company fails to restore the customer's service to the required ESALT RT CoS/QoS performance criteria levels within four hours after receipt of the trouble report and the trouble is found to be in the Telephone Company's network, the Telephone Company will provide the customer with a service credit equal to 144/1440 of the undiscounted monthly charges for the impacted ESALT DTF(s) and associated ESALT RT CoS/QoS options for the initial four hour period and for each subsequent fractional four hour period until the performance failure is resolved. The total service credits due under this provision during a single billing month may not exceed the total undiscounted monthly charges for the impacted ESALT DTF(s) and associated ESALT RT CoS/QoS options.

A capacity based monthly recurring charge (i.e., 2 Mbps, 10 Mbps, or 50 Mbps) applies to each ESALT RT CoS/QoS option ordered by the customer in addition to the applicable charges for the associated ESALT DTF. An Access Order Charge applies to subsequently add the ESALT RT CoS/QoS option to an existing ESALT DTF. The Access Order Charge does not apply to remove the ESALT RT CoS/QoS option.

Charges for the ESALT RT CoS/QoS option are as specified in Section 17.2.2(G), following.

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- 6. Switched Access Service (Cont'd)
 - 6.10 <u>Chargeable and Non-chargeable Optional Features</u> (Cont'd)
 - 6.10.3 Chargeable Optional Features (Cont'd)
 - (F) <u>Ethernet Switched Access Local Transport Entrance Facility Protection</u> (ESALT EFP

Where suitable facilities exist, an ESALT customer that requires stand-by capability on its ESALT Entrance Facility (EF) may order the ESALT EFP option.

This optional arrangement establishes a stand-by ESALT EF between the customer designated premises and the Telephone Company's suitably equipped serving wire center at the same bandwidth capacity as the customer's ESALT EF, which will be activated to restore service should a failure occur in the customer's ESALT EF. ESALT EFP is not available when the ESALT EF is used in conjunction with mixed use as described in Section 6.4.7, above.

When ordered by the customer, the Telephone Company's network will automatically redirect the customer's IP formatted traffic to the stand-by ESALT EF, as described in Technical Reference IEEE Standard 802.1D-2004, Section 17.

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A capacity based monthly recurring charge (i.e., 2 Mbps, 10 Mbps, or 50 Mbps) and nonrecurring charge applies to each ESALT EFP option ordered by the customer in addition to the applicable charges for the associated ESALT EF. An Access Order Charge applies in addition to the ESALT EFP nonrecurring charge to subsequently add the ESALT EFP option to an existing ESALT EF.

Charges for the ESALT EFP option are as specified in Section 17.2.2(H), following.

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ACCESS SERVICE

7. Special Access Service

7.1 General

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

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

Special Access Service purchased from the provisions of this tariff may be commingled with unbundled network elements or unbundled network element combinations purchased pursuant to the Commission's Part 51 Interconnection Rules and in compliance with the Federal Communications Commission's Report and Order on Remand and Further Notice of Proposed Rulemaking in CC Docket Nos. 01-338, 96-98 and 98-147, adopted February 20, 2003 and released August 21, 2003 (FCC 03-36).

7.1.1 Channel Types

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

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

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

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

7.1 <u>General</u> (Cont'd)

7.1.1 <u>Channel Types</u> (Cont'd)

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

Following is a brief description of each type of channel:

Metallic - a channel for the transmission of low speed varying signals at rates up to 30 baud.

Telegraph Grade - a channel for the transmission of binary signals at rates of 0 to 75 baud or 0 to 150 baud.

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

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

Video - a channel for the transmission of standard 525 line 60 field monochrome or National Television Systems Committee color video signal and one or two associated 5 or 15 kHz audio signals. The bandwidth is either 30 Hz or 4.5 MHZ or 30 Hz to 6.6 MHz.

Digital Data - a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6, or 56.0 Kbps.

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

Synchronous Optical - a high speed channel for the transmission of synchronous full duplex data over optical fiber at rates of 155.52 or 622.08 Mbps.

Detailed descriptions of each of the channel types are provided in Sections 7.4 through 7.11, following.

7. <u>Special Access Service</u> (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.1 <u>Channel Types</u> (Cont'd)

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps and 44.736 Mbps) to a Telephone Company hub for multiplexing to individual channels of a lower capacity or bandwidth. Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility are set forth in Sections 7.6 and 7.10, following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet specific communications requirements. Descriptions of the optional features and functions available are set forth in Section 7.2.1, following.

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

Similarly, the customer has the option of ordering Synchronous Optical Channel Service to a wire center equipped for Add/Drop Multiplexing. This allows lower level signals to be added or dropped from a high speed optical carrier channel for delivery to a customer designated premises, WATS office, Public Packet Data Network Service, or another wire center. A description of Add/Drop Multiplexing is set forth in 7.11.3(B), following.

7.1.2 <u>Service Descriptions</u>

For the purpose of ordering, there are eight categories of Special Access Service. These are:

Service Designator Codes

Metallic	MT
Telegraph Grade	TG
Program Audio	AP
Video	TV
Voice	VG
Digital Data	DA
High Capacity	HC
Synchronous Optical	OC

7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.2 Service Descriptions (Con'd)

Each service consists of a basic channel to which a technical specifications package (customized or predefined), channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Technical specifications packages are described in Section 15, following, and optional features and functions are described in this section. Channel interfaces are described in Section 15.2, following.

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

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

The channel descriptions provided in Sections 7.4 through 7.11, following, specify the characteristics of the basic channel and indicate whether the channel is provided between customer designated premises, between a customer designated premises and a Telephone Company hub where bridging or multiplexing functions are performed, between a customer designated premises and a WATS Serving Office (WSO), between a customer designated premises and a DSL Access Service Connection Point, between a customer designated premises and a wire center equipped with a Public Packet Data Network Service, between a Telephone Company serving wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) and another telephone company ATM-equipped serving wire center, between a Telephone Company serving wire center equipped with Frame Relay Access Service (FRAS) and another telephone company service serving wire center equipped with a frame relay switch that is located in a non-adjacent serving territory, or between a Telephone Company serving wire center equipped with Ethernet Transport Service (ETS) and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.2 Service Descriptions (Cont'd)

- (A) Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in matrices set forth in Section 15.2, following.
- (B) Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service, they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in Section 15.2, following, in a combination format.
- (C) Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth in (F), following. When a customized channel is requested, all channel interface combinations available with the specified type of service are available with the customized channel.
- (D) The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in matrices set forth in Section 15.2, following, with the optional feature or function listed down the left side and the technical specifications package listed across the top.
- (E) The Telephone Company will maintain existing transmission specifications on services installed prior to effective date of this tariff, except that existing services with performance specifications exceeding the standards listed in this provision will be maintained at the performance levels specified in this tariff.

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.2 <u>Service Descriptions</u> (Cont'd)

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

Metallic	TR-NPL-000336	(x)
Telegraph Grade	TR-NPL-000336	(x)
Voice Grade	TR-NWT-000335	(x)
Program Audio	GR-337-CORE	(x)
-	and associated Addendum	(x)
Video	GR-338-CORE	(x)
Digital Data	TR-NWT-000341	(x)
(64 Kbps and Subrates)	PUB 62310 (MDP-326-726)	(x)
_	ATIS-0600410.2001	(x)
High Capacity	GR-342-CORE	(x)
	GR-54-CORE	(x)
Synchronous Optical	GR-253-GORE	(x)
For OC3, OC3c, and OC12	GR-1374-CORE	(x)
	ATIS-0900105	(x)
	ATIS-0900102	(x)

7.1.3 <u>Service Configurations</u>

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

(A) <u>Two-Point Service</u>

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

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7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.3 <u>Service Configurations</u> (Cont'd)

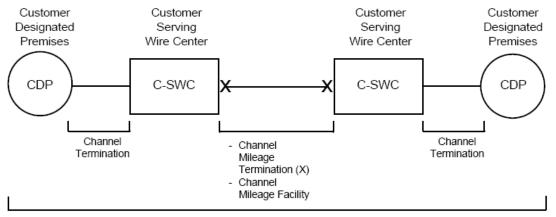
(A) <u>Two-Point Service</u> (Cont'd)

Applicable rate elements are:

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

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

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



Optional Features and Functions C-Type Conditioning

Applicable rate elements are:

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

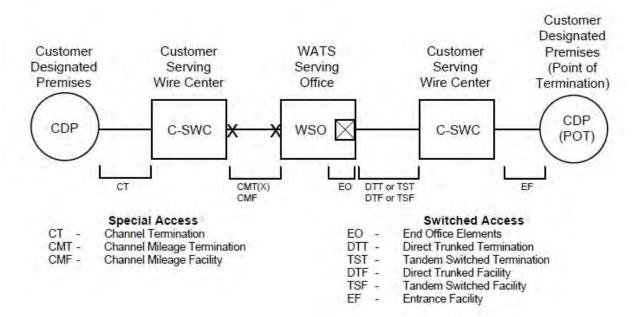
7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.3 <u>Service Configurations</u> (Cont'd)

(A) <u>Two-Point Service</u> (Cont'd)

The following diagram depicts a two-point Voice Grade service connecting to a customer designated premises to a WATS Serving Office (WSO).



Applicable rate elements for Special Access are:

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

* May not apply if exemption certification is provided.

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7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.3 <u>Service Configurations</u> (Cont'd)

(B) <u>Multipoint Service</u>

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

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

Multipoint service utilizing a customized technical specifications package, as set forth in Section 7.1.2, preceding, and Section 15.2, following, will be provided when technically possible. If the Telephone Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

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

Applicable rate elements are:

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

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

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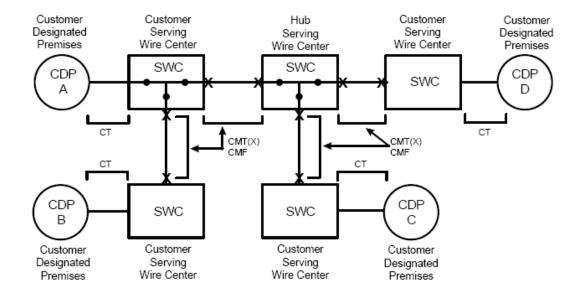
7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 <u>Service Configurations</u> (Cont'd)

(B) <u>Multipoint Service</u> (Cont'd)

The following diagram depicts a Voice Grade multipoint service connecting four Customer Designated Premises (CDPs) via two customer specified bridging hubs.



Applicable rate elements are:

- Channel Terminations (CT) (4 applicable)
- Channel Mileage
 - 2 Channel Mileage Terminations (CMT), per section, plus
 - 4 segments of Channel Mileage Facility (CMF), per mile
- Bridging (•) Optional Feature (6 applicable, one for each bridge port)

7. Special Access Service (Cont'd)

7.1 General (Cont'd)

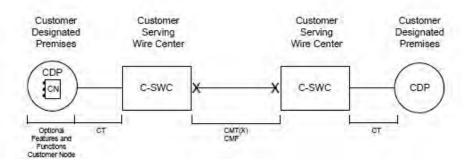
7.1.3 Service Configurations (Cont'd)

(C) Synchronous Optical Channel Service

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

Applicable rate elements are:

- Channel Terminations
- Channel Mileage (as applicable)
- Optional Features and Functions (when applicable)
- (1) The following diagram depicts a Synchronous Optical Channel Service connecting two Customer Designated Premises (CDPs). The Optional Feature and Function of a Customer Node was ordered at one CDP.



Applicable rate elements are:

- Channel Terminations (CT) (2 applicable, one per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations (CMT), plus
 - 1 segment of Channel Mileage Facility (CMF), per mile
- Optional Features
 - 1 Customer Node (CN), plus
 - 3 Customer Premises Ports (•)

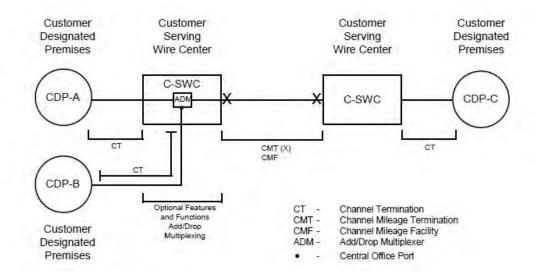
7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.3 <u>Service Configurations</u> (Cont'd)

- (C) <u>Synchronous Optical Channel Service</u> (Cont'd)
 - (2) The following diagram depicts a Synchronous Optical Channel Service connecting three Customer Designated Premises (CDPs). CDP-A and CDP-B are connected using an Add/Drop Multiplexer. At the Add/Drop Multiplexor, the customer may drop off lower speed Special Access Services.

Rates and charges are as set forth in Sections 17.3.8 and 17.3.11, following.



Applicable rate elements are:

- Channel Terminations (CT) (3 applicable, one per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations (CMT), plus
 - 1 segment of Channel Mileage Facility (CMF), per mile
- Optional Features
 - 1 Customer Node (CN), plus
 - 3 Customer Premises Ports (•)

7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.4 Alternate Use

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

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 (ICB) and filed in Section 12, following, Specialized Service or Arrangements. The customer will pay the stated tariff rates for the Access Service rate elements for the service ordered [i.e., Channel Terminations, Channel Mileage (as applicable), and Optional Feature and Functions (if any)].

7.1.5 **Special Facilities Routing**

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

7.1.6 Design Layout Report

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

7. Special Access Service (Cont'd)

7.1 <u>General</u> (Cont'd)

7.1.7 Acceptance Testing

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

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

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

7.1.8 Ordering Options and Conditions

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

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Issued: June 16, 2016

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u>

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

7.2.1 Rate Categories

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

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

(A) <u>Channel Terminations</u>

The Channel Termination rate category provides for the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Channel Termination is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any. The signaling capability is provided as an optional feature as set forth in (C) following.

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

One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building, except as provided for below. The Channel Termination charge will not apply when: (1) the customer designated premises and serving wire center are physically (including caged, cageless, shared and adjacent arrangements) or virtually collocated, as those terms are used in 47 C.F.R. § 51.323 and (2) the customer obtains such collocation for the purpose of interconnection with the Telephone Company's network for the transmission and routing of telephone exchange service, exchange access service or both, and for the purpose of providing local exchange or exchange access services to its customers.

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u>

7.2.1 Rate Categories (Cont'd)

(A) Channel Terminations (Cont'd)

For a Special Access Digital Data Service 56.0 or 64.0 Kbps Bit Rate or for a 1.544 Mbps or 44.736 Mbps High Capacity Service connecting a customer designated premises to a Frame Relay Access Service as described in Section 16.1, following, there will be a charge for only one Channel Termination.

For a 1.544 Mbps or 44.736 Mbps High Capacity Service or for an OC3 or OC12 Synchronous Optical Channel Service connecting a customer designated premises to an Asynchronous Transfer Mode Cell Relay Access Service, as described in Section 16.2, following, there will be a charge for only one Channel Termination.

For a 44.736 Mbps High Capacity Service or for an OC3 or OC12 Synchronous Optical Channel Service connecting a customer designated premises to an Ethernet Transport Service, as described in Section 16.3, following, there will be a charge for only one Channel Termination.

For a 1.544 Mbps or 44.736 Mbps High Capacity Service or for an OC3/OC3c Synchronous Optical Channel Service connecting a customer designated premises to DSL Access Service Connection Point, as described in Section 8, following, for interconnection with the ADSL and/or SDSL Access Services provided by the Telephone Company under this tariff, or, for interconnection with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis, there will be a charge for only one Channel Termination.

For a Metallic Service connecting a customer designated premises to a DSL Access Service Connection Point, as described in Section 8, following, for interconnection with the ADSL and/or SDSL Access Services provided by the Telephone Company under this tariff, or for interconnection with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis, there will be a charge for two Channel Terminations for each DSL Access Service Connection function ordered.

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Channel Mileage

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

Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate.

(1) <u>Channel Mileage Facility</u>

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s), between the Telephone Company serving wire center and another wire center equipped with a Public Packet Data Network Service, between a Telephone Company serving wire center equipped with ATM-CRS and another telephone company ATM-equipped serving wire center, between a Telephone Company serving wire center equipped with FRAS and another telephone company serving wire center equipped with a frame relay switch that is located in a non-adjacent serving territory, or between a Telephone Company serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory.

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Channel Mileage (Cont'd)

(1) <u>Channel Mileage Facility</u> (Cont'd)

The Synchronous Optical Channel Service Channel Mileage Facility provides high speed transmission facilities between the Telephone Company serving wire centers, or between a Telephone Company serving wire center and another wire center equipped for Add/Drop Multiplexing (ADM), or between two ADM equipped wire centers, or between the Telephone Company serving wire center and another wire center equipped with ATM-CRS, or between the Telephone Company serving wire center and another wire center equipped with ETS, or between a Telephone Company serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory.

(2) <u>Channel Mileage Termination</u>

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

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.1 <u>Rate Categories</u> (Cont'd)
 - (B) <u>Channel Mileage</u> (Cont'd)
 - (2) Channel Mileage Termination (Cont'd)

If the Channel Mileage is between the serving wire center for a customer designated premises and another wire center equipped for Public Packet Data Network Service, the Channel Mileage Termination Rate will apply only at the serving wire center for the customer designated premises. If the Channel Mileage is between a Telephone Company serving wire center equipped with FRAS and another telephone company serving wire center equipped with a frame relay switch that is located in a non-adjacent serving territory, or between a Telephone Company serving wire center equipped with ATM-CRS and another telephone company ATM-equipped serving wire center, or between a Telephone Company serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory, no Channel Mileage Termination Rate will apply.

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

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

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7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.1 Rate Categories (Cont'd)

(C) Optional Features and Functions

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

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

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

Descriptions for each of the available Optional Features and Functions are set forth in Sections 7.4 through 7.11, following.

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

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

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7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.2 Types of Rates and Charges

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

(A) <u>Monthly Rates</u>

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

(B) Daily Rates

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

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

(C) <u>Nonrecurring Charges</u>

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Special Access Service are: installation of service, installation of optional features and functions, and service rearrangements. These charges are in addition to the Access Order Charge, as specified in Section 17.4.1, following.

(1) Installation of Service

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

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges (Cont'd)

Installation of Optional Features and Functions (2)

When Optional Features and Functions are installed coincident with the initial installation of service, no separate nonrecurring charge is applicable. When Optional Feature and Functions are installed or changed subsequent to the installation of service, an Access Order Charge, as specified in Section 17.4.1, following, will apply per order.

(3) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service. Changes to pending orders are set forth in Section 5.4.3, preceding.

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

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

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

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.2 Types of Rates and Charges (Cont'd)

(C) Nonrecurring Charges (Cont'd)

(3) Service Rearrangements (Cont'd)

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

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of 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.

All other service rearrangements will be charged as follows:

- If the change involves the addition of other customer designated premises to an existing service, the nonrecurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge, as set forth in Section 17.4.1, following.
- If the change involves the addition of an optional feature or function (with the exception of the addition of Clear Channel Capability to an existing service), or if the change involves changing the type of signaling on a Voice Grade service, and for all other changes, the Access Order Charge, as set forth in Section 17.4.1, following, will apply.
- When the Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply.

7. <u>Special Access Service</u> (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.3 Moves

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

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

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

(A) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge, as set forth in Section 17.4.1, following.

(B) Moves To a Different Building

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

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.4 Minimum Periods

The minimum service period for all services, except part-time Video and Program Audio services, DS3 High Capacity Service and Synchronous Optical Channel Service, is one month and the full monthly rate will apply to the first month. Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in Section 2.4.1(F), preceding.

The minimum service period for part-time Video and Program Audio services is a continuous 24-hour period, not limited to a calendar day.

The minimum service period for DS3 High Capacity Service and Synchronous Optical Channel Service is twelve months.

The minimum service period will be waived for a High Capacity Service, included in a Term Discount plan, that is replaced with a qualifying High Capacity Service Optional Rate Plan Replacement, as set forth in Section 7.2.8(A)(1)(c), following.

The minimum service period will be waived for a Synchronous Optical Channel Service, included in a Term Discount plan, that is replaced with a qualifying SOCS Optional Rate Plan Replacement, as set forth in Section 7.2.8(B)(3), following.

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.5 <u>Mileage Measurement</u>

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

- The serving wire centers associated with two customer designated premises,
- A serving wire center associated with a customer designated premises and a Telephone Company hub,
- A serving wire center associated with a customer designated premises and a wire center equipped with a Public Packet Data Network Service,
- A serving wire center equipped with ATM-CRS and another telephone company ATM-equipped serving wire center,
- A serving wire center equipped with FRAS and another telephone company serving wire center equipped with a frame relay switch that is located in a non-adjacent serving territory,
- A serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory,
- A serving wire center associated with a customer designated premises and a DSL Access Service Connection Point,
- Two Telephone Company hubs,
- A serving wire center associated with a customer designated premises and a wire center equipped for Add/Drop Multiplexing,
- Two wire centers equipped for Add/Drop Multiplexing, or
- Between the serving wire center associated with a customer designated premises and a WATS Serving Office.

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

(x)

(x)

ACCESS SERVICE

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.5 Mileage Measurement (Cont'd)

Mileage charges are shown with each channel type.

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

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

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

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

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

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

- Customer designated premises serving wire center to an Add/Drop Multiplexing (ADM) equipped wire center;
- ADM equipped wire center to ADM equipped wire center; and/or,
- ADM equipped wire center to a customer designated premises serving wire center.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

(x)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services (i.e., DS1, DS1C, DS2, DS3, or DS4) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., Telegraph, Voice, Program Audio, etc.).

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

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

Some of the types of multiplexing available include the following:

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

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

The Telephone Company will commence billing the monthly rate for the service to the hub on the date specified by the customer on the Access Order. Individual channels utilizing these services may be installed coincident with the installation of the service to the hub or may be ordered and/or installed at a later date, at the option of the customer. Except as provided for in Section 7.2.1(A), preceding, the customer will be billed for a Voice Grade or a High Capacity Channel Termination, Channel Mileage (when applicable), and the multiplexer at the time the service is installed. Individual service rates (by service type) will apply for a Channel Termination and additional Channel Mileage (as required) for each channelized service. These will be billed to the customer as each individual service is installed.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

Issued: June 16, 2016 Effective: July 1, 2016

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.6 Facility Hubs (Cont'd)

Cascading multiplexing occurs when a High Capacity service is de-multiplexed to provide channels with a lesser capacity and one of the lesser capacity channels is further de-multiplexed. For example, a 6.312 Mbps High Capacity service is de-multiplexed to four DS1 channels and then one of the DS1 channels is further de-multiplexed to 24 individual Voice Grade channels.

When cascading multiplexing is performed, whether in the same or a different hub, a charge for the additional multiplexing unit also applies. When cascading multiplexing is performed at different hubbing locations, Channel Mileage charges also apply between the hubs.

The Telephone Company will designate hubs for Program Audio and Video Services. Full-time or part-time service may be provided between customer designated premises or between a customer designated premises and a hub and billed accordingly at the monthly rates set forth in Sections 17.3.5 and 17.3.6, following, for a Channel Termination, Channel Mileage and Optional Features and Functions, as applicable. When the service is ordered to a hub, the customer may order full-time or part-time Video and Program Audio services, as needed, between that hub and additional customer designated premises. The rate elements required to provide the part-time service (i.e., Channel Termination, Channel Mileage and Optional Features and Functions, as applicable) will be billed at daily rates for the duration of the service requested.

7.2.7 Mixed Use

Mixed use refers to a rate applicable when the customer orders High Capacity or Synchronous Optical Channel Service Special Access facilities between a customer designated premises and a Telephone Company hub or ADM equipped wire center where the Telephone Company performs multiplexing/demultiplexing functions and the same customer then orders the derived channels as Special and Switched Access Services. Mixed use also applies when the customer orders Switched Access Service between a customer designated premises and an end office that is multiplexed at a Telephone Company hub or ADM equipped wire center and the same customer then orders the derived channels as Special and Switched Access Service. Rates and charges will apply for the existing facilities and new facilities as if the service were ordered as mixed use.

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.7 Mixed Use (Cont'd)

Except as noted above, the High Capacity or Synchronous Optical Channel Service facility will be ordered, provided and rated as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, Multiplexing, Customer Node, Customer Premises Port, and Add/Drop Multiplexing). The nonrecurring charge that applies when the mixed use facility is installed will be the nonrecurring charge associated with the appropriate Special Access High Capacity or Synchronous Optical Channel Service Channel Termination.

Rating as Special Access will continue until such time as the customer chooses to use a portion of the available capacity for Switched Access Service. Individual service (i.e., Switched or Special Access) nonrecurring charges will not apply to the individual channels of the mixed use facility.

When Special Access Service is provided utilizing a channel of the mixed use facility to a hub, High Capacity rates and charges will apply for the facility to the hub, as set forth preceding, and individual service rates and charges will apply from the hub to the customer designated premises.

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

As each individual channel of a Special Access High Capacity Service is activated for Switched Access Service, the Special Access Channel Termination, Channel Mileage and Multiplexing rates will be reduced accordingly (e.g., 1/24th for a DS1 service, 1/672nd for a DS3 service).

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

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

Transmittal No. 1

Issued: June 16, 2016

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.7 Mixed Use (Cont'd)

Switched Access Service rates and charges, as set forth in Section 17.2, following, will apply for each channel that is used to provide a Switched Access Service. The Switched Access Service Entrance Facility charge will be reduced by multiplying its rate by a rate reduction factor (i.e., the ratio of derived Switched Access Service channels to the total number of channels that can be derived). If the Telephone Company is providing Direct Trunked Transport, then the Direct Trunked Transport, Multiplexing, Customer Node, Customer Premises Port, and Add/Drop Multiplexing charges will be reduced by multiplying their respective rates by the rate reduction factor.

The following table shows the total voice grade equivalents for each of the services that may be used for Mixed Use.

High Capacity or	DS3	DS1	Voice Grade	
Synchronous Optical Channel Service	Quantities	Quantities	Equivalents	
DS1	n/a	1	24	
DS3	1	28	672	
OC3	3	84	2,016	
OC12	12	336	8,064	

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

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Issued: June 16, 2016

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.8 Optional Rate Plans

There are two Optional Rate Plans: a High Capacity Optional Rate Plan and a Synchronous Optical Channel Service Optional Rate Plan.

(A) <u>High Capacity Optional Rate Plan</u>

The High Capacity Optional Rate Plan offers a Term Discount. The Term Discount plan applies to Special Access DS1 and DS3 High Capacity Service Channel Termination, Channel Mileage Facility and Channel Mileage Termination monthly rates, as set forth following. The current monthly rates for such services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer. The Term Discount percentages for High Capacity Service are as set forth in Section 17.3.8 (C), following.

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

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

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

The minimum service period for all Term Discount plans is twelve months. The minimum service period will be waived for a High Capacity Service included in a Term Discount plan that is replaced with a qualifying High Capacity Service Optional Rate Plan Replacement as set forth in Section 7.2.8(A)(3), following.

The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentage as set forth in Section 17.3.8(C), following, will be frozen from Telephone Company initiated decreases, for the entire discount period at the percent in effect at the beginning of the Term Discount period.

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.8 Optional Rate Plans (Cont'd)

(A) High Capacity Optional Rate Plan (Cont'd)

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

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

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

Eligible DS1 or DS3 High Capacity rate elements are those Channel Terminations, Channel Mileage Facility and Channel Mileage Terminations provided to a customer within the same state and LATA by the same Telephone Company.

As long as the number of DS1s or DS3s included in a Term Discount plan remains constant, except for qualifying High Capacity Service Optional Rate Plan Replacements, as set forth in Section 7.2.8(A)(3), following, customer requests to install and disconnect DS1 or DS3 services, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in (4), following, will not apply.

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Optional Rate Plans (Cont'd)

(A) High Capacity Optional Rate Plan (Cont'd)

Upgrades in Term Discounts (1)

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

(2) Upgrades in Capacity (DS1 to DS3)

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

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

7. Special Access Service (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.8 Optional Rate Plans (Cont'd)

(A) <u>High Capacity Optional Rate Plan</u> (Cont'd)

(2) <u>Upgrades in Capacity (DS1 to DS3)</u> (Cont'd)

A new minimum service period applies to all upgrades. Channel Termination nonrecurring charges for an equivalent channel capacity of the existing services being upgraded to the higher speed service will not be assessed.

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

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

(3) <u>High Capacity Service Optional Rate Plan Replacements</u>

All or a portion of existing DS1 or DS3 services included in a High Capacity Optional Rate Plan may be replaced before the end of its term commitment period with a new Synchronous Optional Channel Service (SOCS) Optional Rate Plan, with a new or existing ATM-CRS Term Discount Plan, or with a new or existing ETS Term Discount Plan, without incurring Discontinuance of Service charges as set forth in (4), following, if all of the requirements listed in (a), below, are met.

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) <u>High Capacity Optional Rate Plan</u> (Cont'd)
 - (3) High Capacity Service Optional Rate Plan Replacements

All or a portion of existing DS1 or DS3 services included in a High Capacity Optional Rate Plan may be replaced before the end of its term commitment period with a new Synchronous Optional Channel Service (SOCS) Optional Rate Plan, with a new or existing ATM-CRS Term Discount Plan, or with a new or existing ETS Term Discount Plan, without incurring Discontinuance of Service charges as set forth in (4), following, if all of the requirements listed in (a), below, are met.

- (a) A customer may replace all or a portion of the services included in its existing High Capacity Optional Rate Plan(s) before the end of its term commitment period(s) with newly committed SOCS channel(s) added to the customer's new SOCS Term Discount Optional Rate Plan, with newly committed ATM-CRS Port(s) added to the customer's new or existing ATM Term Discount Plan, or with newly committed ETS Port(s) added to the customer's new or existing ETS Term Discount Plan provided:
 - (i) The term commitment period remaining in the customer's existing ATM-CRS Term Discount Plan or existing ETS Term Discount Plan or established in the new SOCS Optional Rate Plan, new ATM-CRS Term Discount Plan or new ETS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing High Capacity Optional Rate Plan(s);

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) <u>High Capacity Optional Rate Plan</u> (Cont'd)
 - (3) <u>High Capacity Service Optional Rate Plan Replacements</u> (Cont'd)
 - (a) (Cont'd)
 - (ii) The bandwidth capacity of the newly committed SOCS channel(s) included in the new SOCS Optional Rate Plan, the newly committed ATM-CRS Port(s) included in the new or existing ATM-CRS Term Discount Plan, or the newly committed ETS Port(s) included in the new or existing ETS Term Discount Plan, meets or exceeds the bandwidth capacity of the service(s) being replaced in the customer's existing High Capacity Optional Rate Plan(s);
 - (iii) The customer commits to retain the newly committed ATM-CRS Port(s) or newly committed ETS Port(s) in-service at the same bandwidth capacity for the remaining term commitment period for its existing ATM-CRS Term Discount Plan, or its existing ETS Term Discount Plan, or for the entire term commitment period of its new SOCS Term Discount Optional Rate Plan, new ATM-CRS Term Discount Plan, or new ETS Term Discount Plan:
 - (iv) The customer's orders for the disconnect of all or a portion of the services included in its High Capacity Optional Rate Plan and the addition of newly committed SOCS channel(s) to a new SOCS Optional Rate Plan, newly committed ATM-CRS Port(s) to a new or existing ATM-CRS Term Discount Plan, or newly committed ETS Port(s) to a new or existing ETS Term Discount Plan, are submitted to the Telephone Company at the same time and include cross references, as described in Section 5.2.2, preceding;

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) High Capacity Optional Rate Plan (Cont'd)
 - (3) <u>High Capacity Service Optional Rate Plan Replacements</u> (Cont'd)
 - (a) (Cont'd)
 - (v) Any newly committed ATM-CRS Ports or newly committed ETS Ports are added to the customer's existing ATM-CRS Term Discount Plan or existing ETS Term Discount Plan before the last year of the existing term commitment period; and,
 - (vi) Any newly committed SOCS channels added to a new SOCS Optional Rate Plan, newly committed ATM-CRS Ports added to a new or existing ATM-CRS Term Discount Plan, or newly committed ETS Ports added to a new or existing ETS Term Discount Plan, are installed at the same location as the service(s) being replaced in the customer's existing High Capacity Optional Rate Plan(s).
 - (b) If any of the requirements specified in (a), above, are not met, replacement SOCS channels, replacement ATM-CRS Port(s), and/or replacement ETS Port(s), will not qualify for the provisions under Section 7.2.8(A)(3). Discontinuance charges will apply to replace all or a portion of the services in an existing High Capacity Optional Rate Plan as described in (4), below.

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) <u>High Capacity Optional Rate Plan</u> (Cont'd)
 - (3) <u>High Capacity Service Optional Rate Plan Replacements</u> (Cont'd)
 - (c) When a customer replaces all or a portion of its services included in its existing High Capacity Optional Rate Plan with a newly committed SOCS channel(s) added to the customer's new SOCS Optional Rate Plan, with a newly committed ATM-CRS Port(s) added to the customer's new or existing ATM-CRS Term Discount Plan, or with a newly committed ETS Port(s) added to the customer's new or existing ETS Term Discount Plan, provided pursuant to Sections 7.2.8(B), 16.2, and 16.3, following, the Telephone Company will waive any unsatisfied minimum period charges that may otherwise be applicable for disconnecting the customer's High Capacity Service prior to satisfying the minimum service period.
 - (d) The term discount percentage for the replacement SOCS Optional Rate Plan, replacement ATM-CRS Term Discount Plan, or replacement ETS Term Discount Plan, will apply on a going forward basis based on the customer's written request to establish a replacement term commitment period under this section.
 - (e) When a customer replaces all or a portion of its existing High Capacity Optional Rate Plan with a newly committed ATM-CRS Port(s) added to its existing ATM-CRS Term Discount Plan, or with a newly committed ETS Port(s) added to its existing ETS Term Discount Plan, the customer's existing ATM-CRS Term Discount Plan, or existing ETS Term Discount Plan, term commitment period would continue uninterrupted.

- 7. <u>Special Access Service</u> (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) <u>High Capacity Optional Rate Plan</u> (Cont'd)
 - (3) <u>High Capacity Service Optional Rate Plan Replacements</u> (Cont'd)
 - (f) An Access Order Charge, as described in Section 5.4.1, preceding, does not apply to make a change to an existing High Capacity Optional Rate Plan as a result of a High Capacity Service Optional Rate Plan Replacement under this section. An Access Order Charge, per order, does apply to install a SOCS channel(s), ATM-CRS Port(s), and ETS Port(s).
 - (g) Terms and conditions for the SOCS Optional Rate Plan, ATM-CRS Term Discount Plan and ETS Term Discount Plan, are specified in Sections 7.2.8(B), 16.2.5, and 16.3.5, following.
 - (4) Discontinuance of Service

Except as specified in (3), above, discontinuance charges, as described below, will apply to the portion of the service being discontinued when the customer chooses to disconnect all or a portion of its service prior to the expiration of the term commitment period.

(a) Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent for DS1 service, and thirty-five percent for DS3 service, of the total undiscounted monthly charges will apply to the remaining portion of the term commitment period.

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (A) <u>High Capacity Optional Rate Plan</u> (Cont'd)
 - (4) Discontinuance of Service (Cont'd)
 - Should the customer choose to discontinue service (b) ordered under a Term Discount plan after the minimum service period but before the completion of the discount charges discontinuance will Discontinuance charges of fifteen percent for DS1 Service, and thirty-five percent for DS3 Service, of the total undiscounted monthly charges will apply to the remaining portion of the term commitment period. For example, a customer has a DS1 Service which it chooses to discontinue after 33 months into a 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.
 - (B) Synchronous Optical Channel Service (SOCS) Optional Rate Plan

The Synchronous Optical Channel Service Optional Rate Plan offers a Term Discount. The Term Discount applies to Channel Terminations, Channel Mileage, Customer Nodes, Customer Premises Ports, and Central Office Ports, monthly rates, as set forth following. The Term Discount percentages for the Synchronous Optical Channel Service Term Discount are as set forth in Section 17.3.11(D), following.

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

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

7. <u>Special Access Service</u> (Cont'd)

7.2 <u>Rate Regulations</u> (Cont'd)

7.2.8 Optional Rate Plans (Cont'd)

(B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)

The minimum service period for all term discount plans is twelve months. The minimum service period will be waived for a Synchronous Optical Channel Service included in a Term Discount plan that is replaced with a qualifying SOCS Optional Rate Plan Replacement, as set forth in Section 7.2.8(B)(3) following. The customer must specify the length of the service commitment period at the time the service is ordered.

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentage, as set forth in Section 17.3.11(D), following, will be frozen from Telephone Company initiated decreases, for the entire discount period at the percent in effect at the beginning of the Term Discount period.

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

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

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

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)

Eligible OC3/OC3c or OC12 Synchronous Optical Channel Service rate elements are those Channel Terminations, Channel Mileage Facility, Channel Mileage Terminations, Customer Nodes, Customer Premises Ports and Central Office Ports provided to a customer within the same state and LATA by the same Telephone Company. As long as the number of OC3s, OC3cs or OC12s, included in a Term Discount plan, remains constant, except for qualifying SOCS Optional Rate Plan Replacements, as set forth in Section 7.2.8(B)(3), following, customer requests to install and disconnect OC3, OC3c or OC12 services, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges, as set forth in (4), following, will not apply.

(1) <u>Upgrades in Term Discounts</u>

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

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (2) <u>Upgrades in Capacity (OC3/OC3c to OC12)</u>

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

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

A new minimum service period applies to all upgrades. Nonrecurring charges will not be assessed when an existing OC3/OC3c service is upgraded to an equivalent channel capacity at a higher speed.

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

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (3) SOCS Optional Rate Plan Replacements

All or a portion of existing OC3/OC3c or OC12 services, included in a SOCS Optional Rate Plan, may be replaced before the end of its term commitment period with a new or existing ATM-CRS Term Discount Plan, or with a new or existing ETS Term Discount Plan, without incurring Discontinuance of Service charges, as set forth in (4), following, if all of the requirements listed in (a), below, are met.

- (a) A customer may replace all or a portion of the services included in its existing SOCS Optional Rate Plan(s) before the end of its term commitment period(s) with newly committed ATM-CRS Port(s) added to the customer's new or existing ATM-CRS Term Discount Plan, or with newly committed ETS Port(s) added to the customer's new or existing ETS Term Discount Plan, provided:
 - (i) The term commitment period remaining in the customer's existing ATM-CRS Term Discount Plan, or existing ETS Term Discount Plan, or established in the new ATM-CRS Term Discount Plan, or new ETS Term Discount Plan, meets or exceeds the number of months remaining in the customer's existing SOCS Optional Rate Plan(s);
 - (ii) The bandwidth capacity of the newly committed ATM-CRS Port(s) included in the new or existing ATM-CRS Term Discount Plan, or the newly committed ETS Port(s) included in the new or existing ETS Term Discount Plan, meets or exceeds the bandwidth capacity of the service(s) being replaced in the customer's existing SOCS Optional Rate Plan(s);

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (3) <u>SOCS Optional Rate Plan Replacements</u> (Cont'd)
 - (a) (Cont'd)
 - (iii) The customer commits to retain the newly committed ATM-CRS Port(s), or newly committed ETS Port(s), in-service at the same bandwidth capacity for the remaining term commitment period for its existing ATM-CRS Term Discount Plan, or its existing ETS Term Discount Plan, or for the entire term commitment period of its new ATM-CRS Term Discount Plan, or new ETS Term Discount Plan;
 - (iv) The customer's orders for the disconnect of all or a portion of the services included in its SOCS Optional Rate Plan and the addition of newly committed ATM-CRS Port(s) to a new or existing ATM-CRS Term Discount Plan, or newly committed ETS Port(s) to a new or existing ETS Term Discount Plan, are submitted to the Telephone Company at the same time and include cross references, as described in Section 5.2.2, preceding;
 - (v) Any newly committed ATM-CRS Ports, or newly committed ETS Ports, are added to the customer's existing ATM-CRS Term Discount Plan, or existing ETS Term Discount Plan, before the last year of the existing term commitment period; and,

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (3) <u>SOCS Optional Rate Plan Replacements</u> (Cont'd)
 - (a) (Cont'd)
 - (vi) Any newly committed ATM-CRS Ports added to a new or existing ATM-CRS Term Discount Plan, or a newly committed ETS Ports added to a new or existing ETS Term Discount Plan, are installed at the same location as the service(s) being replaced under the customer's existing SOCS Optional Rate Plan(s).
 - (b) If any of the requirements specified in (a), above, are not met, replacement ATM-CRS Port(s), and/or replacement ETS Port(s), will not qualify for the provisions under Section 7.2.8(B)(3). Discontinuance charges will apply to replace all or a portion of the services in an existing SOCS Optional Rate Plan, as described in (4), below.
 - (c) When a customer replaces all or a portion of the services included in its existing SOCS Optional Rate Plan with a newly committed ATM-CRS Port(s) added to the customer's new or existing ATM-CRS Term Discount Plan, or with a newly committed ETS Port(s) added to the customer's new or existing ETS Term Discount Plan, provided pursuant to Sections 16.2 and 16.3, following, the Telephone Company will waive any unsatisfied minimum period charges that may otherwise be applicable for disconnecting the customer's SOCS prior to satisfying the minimum service period.
 - (d) The term discount percentage for the replacement ATM-CRS Term Discount Plan, or replacement ETS Term Discount Plan, will apply on a going forward basis based on the customer's written request to establish a replacement term commitment period under this section.

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (3) <u>SOCS Optional Rate Plan Replacements</u> (Cont'd)
 - (e) When a customer replaces all or a portion of its existing SOCS Optional Rate Plan with a newly committed ATM-CRS Port(s) added to its existing ATM-CRS Term Discount Plan or with a newly committed ETS Port(s) added to its existing ETS Term Discount Plan, the customer's existing ATM-CRS Term Discount Plan or existing ETS Term Discount Plan term commitment period would continue uninterrupted.
 - (f) An Access Order Charge, as described in Section 5.4.1, preceding, does not apply to make a change to an existing SOCS Optional Rate Plan as a result of a SOCS Optional Rate Plan Replacement under this section. An Access Order Charge, per order, does apply to install an ATM-CRS Port(s) and ETS Port(s).
 - (g) Terms and conditions for the ATM-CRS Term Discount Plan, and ETS Term Discount Plan, are specified in Sections 16.2.5 and 16.3.5, following.

- 7. Special Access Service (Cont'd)
 - 7.2 <u>Rate Regulations</u> (Cont'd)
 - 7.2.8 Optional Rate Plans (Cont'd)
 - (B) <u>Synchronous Optical Channel Service (SOCS) Optional Rate Plan</u> (Cont'd)
 - (4) <u>Discontinuance of Service</u>

Except as specified in (3) above, discontinuance charges, as described below, will apply to the portion of the service being discontinued when the customer chooses to disconnect all or a portion of the service prior to the expiration of the term commitment period.

- (a) Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent for OC3/OC3c service, and thirty-five percent for OC12 service, of the total undiscounted monthly charges, will apply to the remaining portion of the term commitment period.
- (b) Should the customer choose to discontinue service ordered under a Term Discount plan, after the minimum service period, but before the completion of the discount discontinuance period, charges will Discontinuance charges of fifteen percent for OC3/OC3c Service, and thirty-five percent for OC12 Service, of the total undiscounted monthly charges, will apply to the remaining portion of the term commitment period. For example, a customer has an OC3 Service which it chooses to discontinue after 33 months into a 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

7. Special Access Service (Cont'd)

7.3 <u>Surcharge for Special Access Service</u>

7.3.1 General

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

7.3.2 Application

- (A) The Special Access Surcharge will apply to each interstate Special Access Service that terminates on an end user's PBX or other device, where through a function of the device, the Special Access Service interconnects to the local exchange network. Interconnection functions include, but are not limited to, wiring and software functions, bridging, switching or patching of calls or stations. The Surcharge will apply irrespective of whether the interconnection function is performed in equipment located at the customer's premises or in a Centrex CO-type switch.
- (B) Special Access Service will be exempted from the Surcharge by the Telephone Company upon receipt of the customer's written certification for the following Special Access Service terminations:
 - (1) An open-end termination in a Telephone Company switch of an FX line, including CCSA and CCSA-equivalent ONALs; or
 - (2) An analog channel termination that is used for radio or television program transmission; or
 - (3) A termination used for TELEX service; or
 - (4) A termination that by the nature of its operating characteristics could not make use of Telephone Company common lines, such as, terminations which are restricted through hardware or software: or
 - (5) A termination that interconnects either directly or indirectly to the local exchange network where the Special Access Service accesses only FGA and no local exchange lines, or Special Access Service between customer points of termination, or Special Access Service connecting CCSA or CCSA-type equipment (inter-machine trunks); or
 - (6) A termination that the customer certifies to the Telephone Company is not connected to a PBX or other device which interconnects the Special Access Service to a local exchange subscriber line.

7. Special Access Service (Cont'd)

7.3 <u>Surcharge for Special Access Service</u> (Cont'd)

7.3.3 Exemption of Special Access Service

- (A) Special Access Services which are terminated as set forth in Section 7.3.2(B), preceding, will be exempted from the Special Access Surcharge, if the customer provides the Telephone Company with written exemption certification. The certification may be provided to the Telephone Company as follows:
 - At the time the Special Access Service is ordered or installed; or
 - At such time as the service is re-terminated to a device which does not interconnect the service to local exchange facilities
- (B) The exemption certification is to be provided by the customer ordering the service. The certification must be signed by the customer or authorized representative and include the category of exemption, as set forth in Section 7.3.2(B), preceding, for each termination, and the date which the exemption is effective.
- (C) The customer shall also notify the Telephone Company when an exempted Special Access Service is changed or re-terminated such that the exemption is no longer applicable.
- (D) The Telephone Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Telephone Company may withhold exemption of the service until the questions are resolved.

7.3.4 Rate Regulations

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

Special Access Service	Voice Grade <u>Equivalent</u>				Monthly <u>Charge</u>
DS1	24	X	\$25	=	\$600.00

The preceding example illustrates the maximum number of surcharges applicable to a DS1.

7. Special Access Service (Cont'd)

7.3 <u>Surcharge for Special Access Service</u> (Cont'd)

7.3.4 Rate Regulations (Cont'd)

(A) (Cont'd)

If the customer claims exemption(s), as set forth in Section 7.3.3, preceding, or, is not utilizing all available voice grade equivalents and has spare capacity, the number of surcharges would be reduced accordingly.

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

- (B) The Telephone Company will bill the appropriate Special Access Surcharge to the ordering customer for each interstate Special Access Service installed, unless exemption certification is provided, as set forth in Section 7.3.3, preceding.
- (C) If a written certification is not received at the time the Special Access Service is obtained, the Surcharge will be applied. Exempt status will become effective on the certification date, indicated by the customer, subject to the regulations set forth in (D), following.
- (D) The Telephone Company will cease billing the Special Access Surcharge when certification, as set forth in Section 7.3.3, preceding, is received. If the status of the Special Access Service was changed prior to receipt of the exemption certification, the Telephone Company will credit the customer's account, not to exceed ninety (90) days, based on the effective date of the change, as specified by the customer in the letter of certification.

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7. Special Access Service (Cont'd)

7.4 Metallic Service

7.4.1 **Basic Channel Description**

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

Metallic Special Access services are typically used for applications such as alarm, pilot wire protective relaying, and dc tripping protective relaying. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Metallic Service are as set forth in Section 17.3.2, following.

7.4.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in Section 15.2.1(A), following. Compatible network channel interfaces are set forth in Section 15.2.2(C)(1), following.

7.4.3 **Optional Features and Functions**

Central Office Bridging Capability (A)

- (1) Three Premises Bridging - Provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a third customer designated premises.
- (2) Series Bridging of up to 26 customer designated premises.

The table set forth in Section 15.2.1(A), following, shows the technical specifications packages with which the optional features and functions are available.

7. Special Access Service (Cont'd)

7.4 <u>Metallic Service</u> (Cont'd)

7.4.3 Optional Features and Functions (Cont'd)

(B) DSL Access Service Connection

The DSL Access Service Connection function provides for the interconnection of a customer's Ethernet-based local area network (LAN) with ADSL Access Service as described in Section 8.1, following, and with SDSL Access Service as described in Section 8.2, following, provided by the Telephone Company under this tariff. The function also provides for the interconnection of a customer's Ethernet-based LAN with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis. This function provides the ability to transmit data at speeds of up to 10 Mbps (i.e., 10BASE-T) or 100 Mbps (i.e., 100BASE-T) over distances no greater than 300 feet as specified in Technical Reference IEEE Std. 802.3-2008, Part 3, Section 1, Clause 14 for 10BASE-T and Section 2, Clauses 21 and 29 for 100BASE-T.

(x)

(x)

(x)

Rates and charges for the 10BASE-T and 100BASE-T DSL Access Service Connection functions are as set forth in Section 17.3.2(C)(2), following.

Each 10BASE-T function requires two unconditioned two-wire Metallic Service Channel Terminations to be terminated at the DSL Access Service Connection Point. Each 100BASE-T function requires two unconditioned two-wire Metallic Service Channel Terminations to be terminated at a DSL Access Service Connection Point.

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7. Special Access Service (Cont'd)

7.5 <u>Telegraph Grade Service</u>

7.5.1 Basic Channel Description

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

Telegraph Grade Special Access services are typically used for applications such as teletypewriter, telegraph grade control/ remote metering, telegraph grade channel, telegraph grade extension, and telegraph grade entrance facilities. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Telegraph Grade Service are as set forth in Section 17.3.3, following.

7.5.2 <u>Technical Specifications Packages and Network Channel Interfaces</u>

Technical Specifications Packages are set forth in Section 15.2.1(B), following. Compatible network channel interfaces are set forth in Section 15.2.2(C)(2), following.

7.5.3 Optional Features and Functions

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

The table set forth in Section 15.2.1(B), following, shows the technical specifications packages with which the optional features and functions are available.

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7. Special Access Service (Cont'd)

7.6 Voice Grade Service

7.6.1 **Basic Channel Description**

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

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

Rates and charges for Special Access Voice Grade Service are as set forth in Section 17.3.4, following.

7.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in Section 15.2.1(C), following. Compatible network channel interfaces are set forth in Section 15.2.2(C)(3), following.

Optional Features and Functions 7.6.3

(A) Central Office Bridging Capability

- (1) Voice Bridging (two-wire and four-wire)
- (2) Data Bridging (two-wire and four-wire)
- Telephoto Bridging (two-wire and four-wire) (3)
- DATAPHONE Select-A-Station Bridging with sequential (4) arrangement ports or addressable arrangement ports

7. Special Access Service (Cont'd)

7.6 <u>Voice Grade Service</u> (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(A) <u>Central Office Bridging Capability</u> (Cont'd)

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

The rates for these options are set forth in Section 17.3.4(C)(1), following.

(B) <u>Central Office Multiplexing</u>

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

The rate for this option is set forth in Section 17.3.4(C)(5), following.

(C) <u>Conditioning</u>

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

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

(1) C-Type Conditioning

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

(x)

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7. Special Access Service (Cont'd)

7.6 <u>Voice Grade Service</u> (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

- (C) <u>Conditioning</u> (Cont'd)
 - (2) <u>Reserved for Future Use</u>
 - (3) Reserved for Future Use

(4) Data Capability (D Conditioning)

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

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are delineated in Technical Reference TR-NWT-000335.

(x)

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

(5) <u>Telephoto Capability</u>

Telephoto Capability provides transmission characteristics suitable for telephotographic communications. Specifically, Telephoto Capability is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are delineated in Technical Reference TR-NWT-000335.

(x)

(6) Sealing Current Conditioning

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

The rates for these options are set forth in Section 17.3.4(C)(2), following.

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- 7. Special Access Service (Cont'd)
 - 7.6 <u>Voice Grade Service</u> (Cont'd)
 - 7.6.3 Optional Features and Functions (Cont'd)
 - (D) <u>Customer Specified Premises Receive Level</u>

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

(x)

The rate for this option is set forth in Section 17.3.4(C)(4), following.

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

(x) (x)

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

(x)

The rates for these options are set forth in Section 17.3.4(C)(3), following.

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7. Special Access Service (Cont'd)

7.6 <u>Voice Grade Service</u> (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(F) <u>Signaling Capability</u>

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

The rate for this option is set forth in Section 17.3.4(C)(6), following.

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

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

(G) <u>Selective Signaling Arrangement</u>

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

The rate for this option is set forth in Section 17.3.4(C)(7), following.

(H) Transfer Arrangement

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

The rate for this option is set forth in Section 17.3.4(C)(8), following.

7. Special Access Service (Cont'd)

7.6 <u>Voice Grade Service</u> (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

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

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

This option is provided on an Individual Case Basis as set forth in Section 17.3.4(C)(9), following.

(J) Four-Wire/Two-Wire Conversions

When a customer requests that an effective four-wire channel be terminated with a two-wire channel interface at the customer designated premises, a four-wire to two-wire conversion is required. The customer will be charged the four-wire Channel Termination rate, as set forth in Section 17.3.4(A), following, when an effective four-wire is specified in the order for service.

The rate for the conversion is included as part of the basic four-wire Channel Termination rate.

(K) Improved Two-Wire Voice Transmission

(1) <u>Loss Deviation</u>

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

(2) <u>Attenuation Distortion</u>

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

7. Special Access Service (Cont'd)

7.6 <u>Voice Grade Service</u> (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(K) <u>Improved Two-Wire Voice Transmission</u> (Cont'd)

(3) <u>C-Message Noise</u>

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

Route Miles	<u>C-Message Noise</u>
less than 50	35 dBrnco
51 to 100	37 dBrnco
101 to 200	40 dBrnco
201 to 400	43 dBrnco
401 to 1000	45 dBrnco

(4) Return Loss

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

ERL	13.0 dB
SRL	6.0 dB

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

7. Special Access Service (Cont'd)

7.7 <u>Program Audio Service</u>

7.7.1 <u>Basic Channel Description</u>

A Program Audio channel is a channel with bandwidth measured in Hz for the transmission of a complex signal voltage. The actual bandwidth is a function of the channel interface selected by the customer. Only one-way transmission is provided. Program Audio channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Program Audio Special Access services are typically used in full-time and parttime applications for radio broadcasting, noncommercial educational audio, and wired music. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Program Audio Service are as set forth in Section 17.3.5, following.

7.7.2 <u>Technical Specifications Packages and Network Channel Interfaces</u>

Technical Specifications Packages are set forth in Section 15.2.1(D), following. Compatible network channel interfaces are set forth in Section 15.2.2(C)(4), following.

7.7.3 Optional Features and Functions

(A) <u>Central Office Bridging Capability</u>

Distribution Amplifier

(B) <u>Gain Conditioning</u>

Control of 1004 Hz AML at initiation of service to 0 dB \pm 0.5 dB.

(C) Stereo

Provision of a pair of gain/phase equalized channels for stereo applications. (An additional Program Audio channel must be ordered separately.)

The table set forth in Section 15.2.1(D), following, shows the technical specifications packages with which the optional features and functions are available.

7. Special Access Service (Cont'd)

7.8 <u>Video Service</u>

7.8.1 Basic Channel Description

A Video channel is 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 or 15 kHz audio signal(s). The associated audio signal(s) may be either diplexed or provided as one or two separate channels. The provision and the bandwidth of the associated audio signal(s) is a function of the channel interface selected by the customer. Video channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Rates and charges for Special Access Video Service are as set forth in Section 17.3.6, following.

7.8.2 <u>Technical Specifications Packages and Network Channel Interfaces</u>

Technical Specifications Packages are set forth in Section 15.2.1(E), following. Compatible network channel interfaces are set forth in Section 15.2.2(C)(5), following.

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

NCI	Audio Bandwidth	Provision
2TV6-1	15kHz	1 Channel, diplexed
2TV6-2	15kHz	2 Channels, diplexed
2TV7-1	15kHz	1 Channel, diplexed
2TV7-2	15kHz	2 Channels, diplexed
4TV6-5	5kHz	1 Channel, separate
4TV6-15	15kHz	1 Channel, separate
4TV7-5	5kHz	1 Channel, separate
4TV7-15	15kHz	1 Channel, separate
6TV6-5	5kHz	2 Channels, separate
6TV6-15	15kHz	2 Channels, separate
6TV7-5	5kHz	2 Channels, separate
6TV7-15	15kHz	2 Channels, separate
		_

7. Special Access Service (Cont'd)

7.9 <u>Digital Data Service</u>

7.9.1 <u>Basic Channel Description</u>

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

(x)

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

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310 (MDP-326-726).

(x) (x)

Rates and charges for Special Access Digital Data Service are as set forth in Section 17.3.7, following.

7.9.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in Section 15.2.1(F), following. Compatible channel interfaces are set forth in Section 15.2.2(C)(6), following.

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

<u>NCI</u>	Bit Rate	<u>NCI</u>	Bit Rate
DU-24	2.4 kbps	DU-19	19.2 kbps
DU-48	4.8 kbps	DU-56	56.0 kbps
DU-96	9.6 kbps	DU-64	64.0 kbps

- * When 64.0 Kbps service is multiplexed on a DS1 High Capacity service, the DS1 must be equipped to provide Clear Channel Capability.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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7. Special Access Service (Cont'd)

7.9 <u>Digital Data Service</u> (Cont'd)

7.9.3 Optional Features and Functions

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

(A) <u>Central Office Bridging Capability</u>

Bridging is not available on a 64.0 Kbps channel.

(B) <u>Transfer Arrangements</u>

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

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

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

(D) <u>Public Packet Data Service Interface Arrangement</u>

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

The table set forth in Section 15.2.1(F), following, shows the technical specifications packages with which the optional features and functions are available.

(x)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.10 <u>High Capacity Service</u>

7.10.1 <u>Basic Channel Description</u>

A High Capacity channel is a channel for the transmission of nominal 64.0 Kbps* or 1.544, 3.152, 6.312, 44.736, or 274.176 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs. In addition, 1.544 Mbps and 44.736 Mbps High Capacity Service channels may be provided between a customer designated premises and a Telephone Company designated DSL Access Service Connection Point, between a customer designated premises and a serving wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS), between a customer designated premises and a serving wire center equipped with Frame Relay Access Service (FRAS), between a Telephone Company serving wire center equipped with ATM-CRS and another telephone company ATM-equipped serving wire center, and/or between a Telephone Company serving wire center equipped with FRAS and another telephone company serving wire center equipped with a frame relay switch that is located in a non-adjacent serving territory. Additionally, a 44.736 Mbps High Capacity Service channel may be provided between a customer designated premises and a serving wire center equipped with Ethernet Transport Service (ETS), and/or between a Telephone Company serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory.

The customer may provide the Network Channel Terminating Equipment associated with the High Capacity channel at the customer's premises.

A channel with technical specifications package DS1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference GR-342-CORE.

A term discount is available for High Capacity Service. Section 7.2.8(A), preceding, specifies the conditions under which a term discount is applicable.

Rates and charges for Special Access High Capacity Service are as set forth in Section 17.3.8, following.

- * Available only as a channel of a 1.544 Mbps facility to a Telephone Company Digital Data hub or as a cross connect of two 2.4, 4.8, 9.6, 56.0 or 64.0 Kbps channels of two 1.544 Mbps facilities to a Digital Data hub(s). The customer must provide system and channel assignment data.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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7. Special Access Service (Cont'd)

7.10 <u>High Capacity Service</u> (Cont'd)

7.10.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in Section 15.2.1(G), following. Compatible channel interfaces are set forth in Section 15.2.2(C)(7), following.

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

NCI_	Bit Rate
DS-15*	1.544 Mbps (DS1)
DS-27	274.176 Mbps (DS4)
DS-31	3.152 Mbps (DS1C)
DS-44	44.736 Mbps (DS3)
DS-63	6.312 Mbps (DS2)

7.10.3 Optional Features and Functions

(A) Automatic Loop Transfer

The Automatic Loop Transfer provides protection on a 1xN basis against failure of the facilities between a customer designated premises and the wire center serving that premises. Protection is furnished through the use of a switching arrangement that automatically switches to a spare channel line when a working line fails. The spare channel is not included as a part of the option. This option requires compatible equipment at both the serving wire center and the customer designated premises. The customer is responsible for providing the equipment at its designated premises. Equipment at the customer designated premises is not provided under this tariff.

(B) <u>Transfer Arrangement</u>

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

* A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps channel to a Telephone Company Hub.

7. Special Access Service (Cont'd)

7.10 <u>High Capacity Service</u> (Cont'd)

7.10.3 Optional Features and Functions (Cont'd)

(C) <u>Central Office Multiplexing</u>

(1) DS4 to DS1

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

(2) <u>DS3 to DS1</u>

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

(3) DS2 to DS1

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

(4) DS1C to DS1

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

(5) <u>DS1 to Voice</u>

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

(6) <u>DS1 to DS0</u>

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

(7) DS0 to Subrate

An arrangement that converts a 64.0 Kbps channel to subspeeds of up to twenty 2.4 Kbps, ten 4.8 Kbps, or five 9.6 Kbps channels using digital time division multiplexing.

(x)

(x)

(x)

(x)

ACCESS SERVICE

- 7. Special Access Service (Cont'd)
 - 7.10 <u>High Capacity Service</u> (Cont'd)
 - 7.10.3 Optional Features and Functions (Cont'd)
 - (D) <u>Clear Channel Capability (CCC)</u>
 - (1) CCC is an arrangement that allows a customer to transport 1.536 Mbps information rate signals over a 1.544 Mbps High Capacity channel, or over a 1.544 Mbps High Capacity channel derived from a multiplexed 44.736 Mbps High Capacity channel, with no constraint on the quantity or sequence of one and zero bits. This arrangement requires the customer signal at the channel interface to conform to Bipolar with Eight Zero Substitution (B8ZS) line code, as described in Technical Reference GR-54-CORE and Technical Reference GR-342-CORE.
 - CCC is provided, subject to availability of facilities, on DS1/1.544 Mbps High Capacity channels between two customer designated premises and on multiplexed DS3/44.736 Mbps High Capacity channels, or multiplexed DS1/1.544 Mbps High Capacity channels * between a Telephone Company hub office and a customer designated premises. The wire centers providing CCC are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No.4.
 - (3) The CCC optional feature may be ordered at the same time the High Capacity service is ordered or it may be ordered as an addition to an existing High Capacity Service. The customer must agree to out-of-service periods required to add this feature to an existing High Capacity Service.

The charges for the CCC optional feature are as set forth in Section 7.2.2(C)(3), preceding.

The table set forth in Section 15.2.1(G), following, shows the technical specifications packages with which the optional features and functions are available.

- * Available only on a DS1-to-Digital Data multiplexed configuration.
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(x)

ACCESS SERVICE

- 7. Special Access Service (Cont'd)
 - 7.10 <u>High Capacity Service</u> (Cont'd)
 - 7.10.3 Optional Features and Functions (Cont'd)
 - (E) Shared SONET Ring Interoffice Transport
 - (1) Shared SONET Ring Interoffice Transport (SSRIT) is a non-chargeable optional feature which provides interoffice transmission of a DS3 High Capacity Service over a SONET-based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using a self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around the point of failure by switching to a protect path to ensure the flow of services between locations within the self-healing ring.
 - (2) Shared SONET Ring Interoffice Transport is provided for the interoffice portion of DS3 High Capacity Service, subject to availability of SONET ring facilities. The wire centers offering Shared SONET Ring Interoffice Transport are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No.4.
 - (3) The Shared SONET Ring Interoffice Transport optional feature may be ordered at the same time the DS3 High Capacity service is ordered or it may be ordered as an addition to an existing DS3 High Capacity Service. The customer must agree to out-of-service periods required to add this feature to an existing DS3 High Capacity Service.

The charges for the Shared SONET Ring Interoffice Transport optional feature are as set forth in Section 7.2.2.(C)(3), preceding.

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7. Special Access Service (Cont'd)

7.10 High Capacity Service (Cont'd)

7.10.3 Optional Features and Functions (Cont'd)

DSL Access Service Connection (F)

The DSL Access Service Connection function provides for the interconnection of a 1.544 Mbps or 44.736 Mbps High Capacity Service with ADSL Access Service, as described in Section 8.1, following, and with SDSL Access Service, as described in Section 8.2, following, provided by the Telephone Company under this tariff. The function also provides for the interconnection of a 1.544 Mbps or 44.736 Mbps High Capacity Service with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis.

This function applies to each 1.544 Mbps or 44.736 Mbps High Capacity Service terminated at a DSL Access Service Connection Point.

Rates and charges for the DSL Access Service Connection function are as set forth in Section 17.3.8(D)(6), following.

(x)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.11 <u>Synchronous Optical Channel Service</u>

7.11.1 <u>Basic Channel Description</u>

A Synchronous Optical Channel Service channel provides dedicated transport utilizing Synchronous Optical Network (SONET) transmission standards. Synchronous Optical Channel Service provides optical network capability to customers requiring connections at transmission rates of 155.52 Mbps (OC3) and 622.08 Mbps (OC12). Synchronous Optical Channel Service is provided between two customer designated premises (CDP) through one or more Telephone Company wire centers, or between a CDP and a wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service, or between a CDP and a wire center equipped for Add/Drop Multiplexing (ADM). In addition, customers at an ADM equipped wire center may add or drop bandwidth capacity from the synchronous optical channel for delivery to a customer designated premises, WATS office, Public Packet Data Network Service, or another wire center.

OC3/OC3c Synchronous Optical Channel Service may also be provided between a customer designated premises and a Telephone Company designated DSL Access Service Connection Point.

Additionally, a Synchronous Optical Channel Service channel may be provided between a customer designated premises and a serving wire center equipped with Ethernet Transport Service (ETS), and/or between a Telephone Company serving wire center equipped with ETS and another telephone company Ethernet-equipped serving wire center that is located in a non-adjacent serving territory.

Each channel will be configured with one working and one protect fiber pair within the same sheath between the CDP and the serving wire center of the CDP which provides redundancy to protect the customer's service. Should a failure occur, the SONET technology will automatically switch the customer's transmission to the dedicated protect fiber pair.

The customer may provide node and port equipment at the CDP which allows the high speed optical carrier channel to be converted to an electrical signal at a lower speed. The provision of such equipment by the customer is subject to compatibility with the Telephone Company's equipment in the serving wire center and must comply with the standards specified in GR-253-CORE.

The OC3 channel is available in a non-concatenated format (OC3) which provides three individual signals. The OC3 channel is also available in a concatenated format (OC3c) which provides a single signal appropriate for data transmissions.

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7. Special Access Service (Cont'd)

7.11 <u>Synchronous Optical Channel Service</u> (Cont'd)

7.11.1 Basic Channel Description (Cont'd)

A term discount is available for Synchronous Optical Channel Service. Section 7.2.8(B), preceding, specifies the conditions under which a term discount is applicable.

Synchronous Optical Channel Service is available at the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

(x)

Rates and charges for Synchronous Optical Channel Service are as set forth in Section 17.3.11, following

7.11.2 Network Channel Interfaces

Compatible channel interfaces for Synchronous Optical Channel Service are as set forth in Section 15.2.2(C)(8), following.

The following network channel interfaces (NCIs) define the bit rates that are available for a synchronous optical channel:

<u>NCI</u>	Bit Rate
FCF-B	155.52 Mbps (OC3, OC3c)
FCF-D	622.08 Mbps (OC12)

7.11.3 Optional Features and Functions

(A) Customer Node

A Customer Node charge applies when the Telephone Company provides terminal equipment at the customer designated premises for termination of a Synchronous Optical Channel Service Channel Termination. Such equipment may be used to convert the signal from an optical to electrical format. The Customer Node charge is determined by the level of optical service (i.e., OC3, OC3c or OC12) delivered to the premises. Each Customer Node must be configured with one or more Customer Premises Ports.

Rates and charges for the Customer Node are as set forth in Section 17.3.11(D)(1), following.

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7. Special Access Service (Cont'd)

7.11 <u>Synchronous Optical Channel Service</u> (Cont'd)

7.11.3 Optional Features and Functions (Cont'd)

(B) Customer Premises Port

Customer Premises Port charges apply in conjunction with the Customer Node charge. Each Customer Premises Port provides the interface to derive a lower capacity service at the customer premises. The type and quantity of ports is determined by the customer and is based on the type of Customer Node selected and the number of DS1, DS3, STS-1 and/or OC3/OC3c channels ordered. Customer Premises Ports are available at the following speeds:

Customer Premises Port	Speed
OC3, OC3c	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

Rates and charges for the Customer Premises Port are as set forth in Section 17.3.11(D)(2), following.

(C) Add/Drop Multiplexing

An Add/Drop Multiplexing Central Office Port charge applies to the interface provided at a Telephone Company wire center for the purpose of adding or dropping lower capacity services from Synchronous Optical Channel Service Channel Termination or Channel Mileage transport facilities. Central Office Ports are available at the following speeds:

Central Office Port	Speed
	-
OC3, OC3c	155.52 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

OC12 service may only be multiplexed to OC3/OC3c channels.

When an OC3 channel is derived from an OC12 service and is further multiplexed to obtain DS3 service, a DS3 port charge will apply in addition to the OC3 port charge.

7. <u>Special Access Service</u> (Cont'd)

7.11 Synchronous Optical Channel Service (Cont'd)

7.11.3 Optional Features and Functions (Cont'd)

(C) Add/Drop Multiplexing (Cont'd)

When a DS3 channel is derived from an OC3 service and is further multiplexed to obtain DS1 service, a DS3 to DS1 Multiplexing charge, as set forth in Section 17.3.8(D)(1), following, will apply in addition to the DS3 port charge.

When a DS1 channel is directly derived from an OC3 service, a DS1 port charge will apply.

When a DS1 channel is further multiplexed to a lower level signal, a DS1 to Voice Grade Multiplexing charge, as set forth in Section 17.3.8(D)(1), following, will also apply.

Rates and charges for the Central Office Port are as set forth in Section 17.3.11(D)(3), following.

(D) Shared SONET Ring Interoffice Transport

- (1) Shared SONET Ring Interoffice Transport (SSRIT) is a non-chargeable optional feature which provides interoffice transmission of a Synchronous Optical Channel Service over a SONET-based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using a self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around the point of failure by switching to a protect path to ensure the flow of services between locations within the self-healing ring.
- (2) Shared SONET Ring Interoffice Transport is provided for the interoffice portion of Synchronous Optical Channel Service, subject to availability of SONET ring facilities. The wire centers offering Shared SONET Ring Interoffice Transport are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No.4.

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- 7. Special Access Service (Cont'd)
 - 7.11 <u>Synchronous Optical Channel Service</u> (Cont'd)
 - 7.11.3 Optional Features and Functions (Cont'd)
 - (D) Shared SONET Ring Interoffice Transport (Cont'd)
 - (3) The Shared SONET Ring Interoffice Transport optional feature may be ordered at the same time the Synchronous Optical Channel Service is ordered, or it may be ordered as an addition to an existing Synchronous Optical Channel Service. The customer must agree to out-of-service periods required to add this feature to an existing Synchronous Optical Channel Service.

The charges for the Shared SONET Ring Interoffice Transport optional feature are as set forth in Section 7.2.2.(C)(3), preceding.

(E) DSL Access Service Connection

The DSL Access Service Connection function provides for the interconnection of an OC3 or OC3c Synchronous Optical Channel Service with ADSL Access Service, as described in Section 8.1, following, and with SDSL Access Service, as described in Section 8.2, following, provided by the Telephone Company under this tariff. The function also provides for the interconnection of an OC3 or OC3c Synchronous Optical Channel Service with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis.

This function applies to each OC3 or OC3c Synchronous Optical Channel terminated at a DSL Access Service Connection Point.

Rates and charges for the DSL Access Service Connection function are as set forth in Section 17.3.11(D)(5), following.

8. Digital Subscriber Line Access Service

Where offered under this tariff, Digital Subscriber Line Access Service provide transmission services over local exchange service facilities that can be used for simultaneous voice and data communications. Service is provided, where available, between customer designated premises and designated Telephone Company Serving Wire Centers.

(N) (N)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u>

(D) | (D)

(N)

8.1.1 General

data traffic

Asymetric Digital Subscriber Line (ADSL) Access Service enables data traffic generated by a customer-provided modem to be transported to a DSL Access Service Connection Point using the Telephone Company's local exchange service facilities. A DSL Access Service Connection Point is an interconnection point designated by the Telephone Company in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 at which the customer may interconnect its ADSL Access Service provided by the Telephone Company under this tariff or its wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis with the tariffed, interstate access services described below. The DSL Access Service Connection Point aggregates ADSL Access Service and/or wireline broadband Internet transmission service data traffic from and to suitably equipped Telephone Company Serving Wire Centers (SWCs). The DSL Access Service Connection Point may be located within the operating territory of the Telephone Company for connections to Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) or Ethernet Transport Service (ETS). As specified below, the DSL Access Service Connection Point may also be located in the operating territory of another telephone company for connections to special access service, frame relay access service, or Ethernet access service, provided both telephone companies agree to such an arrangement.

When both the ADSL-equipped SWC and its associated DSL Access Service Connection Point are located within the Telephone Company's operating territory, the customer's ADSL Access Service must be connected to the customer designated premises of a single telecommunications service provider (TSP) using the Telephone Company's Special Access Service, Frame Relay Access Service, ATM-CRS, or ETS provided under this tariff.

(N)

Certain material formerly found on this page now appears on Original Page 8-17.

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8. Digital Subscriber Line Access Service (Cont'd)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.1 General (Cont'd)

When both the ADSL-equipped SWC from which the Telephone Company provides local exchange and exchange access services and its associated DSL Access Service Connection Point are located in the operating territory of another telephone company, the customer's ADSL Access Service must be connected to the customer designated premises of a single TSP using either equivalent special access service, frame relay access service, asynchronous transfer mode or Ethernet access service provided by the other telephone company.

When the ADSL-equipped SWC is located within the Telephone Company's operating territory and its associated DSL Access Service Connection Point is located in the operating territory of another telephone company, the customer's ADSL Access Service must be connected to the customer designated premises of a single TSP using either equivalent special access service, frame relay access service, asynchronous transfer mode or Ethernet access service, provided by the other telephone company.

When the ADSL-equipped SWC from which the Telephone Company provides local exchange and exchange access services is located in the operating territory of another telephone company and the DSL Access Service Connection Point is located within the Telephone Company's operating territory, the customer's ADSL Access Service must be connected to the customer designated premises of a single TSP using the Telephone Company's Special Access Service, Frame Relay Access Service, ATM-CRS or ETS provided under this tariff.

Where technically feasible, ADSL Access Service is available as two service options, i.e., ADSL Voice-Data and ADSL Data-Only.

- (A) The ADSL Voice-Data option provides transmission of data signals using the Telephone Company's existing local exchange service line at peak data transmission speeds of:
 - 1 Mbps upstream/6 Mbps downstream,
 - 1 Mbps upstream/10 Mbps downstream,
 - 3 Mbps upstream/15 Mbps downstream,
 - 3 Mbps upstream/25 Mbps downstream,
 - 25 Mbps upstream/50 Mbps downstream,
 - 50 Mbps upstream/100 Mbps downstream,
 - 100 Mbps upstream/200 Mbps downstream,
 - 100 Mbps upstream/500 Mbps downstream, or
 - 100 Mbps upstream/1000 Mbps downstream.

The ADSL Voice-Data option may be used for simultaneous voice and data communications.

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.1 General (Cont'd)
 - (B) The ADSL Data-Only option provides transmission of data signals using the Telephone Company's existing local exchange facilities at peak transmission speeds of:
 - 1 Mbps upstream/6 Mbps downstream,
 - 1 Mbps upstream/10 Mbps downstream,
 - 3 Mbps upstream/15 Mbps downstream,
 - 3 Mbps upstream/25 Mbps downstream
 - 25 Mbps upstream/50 Mbps downstream,
 - 50 Mbps upstream/100 Mbps downstream,
 - 100 Mbps upstream/200 Mbps downstream,
 - 100 Mbps upstream/500 Mbps downstream, or
 - 100 Mbps upstream/1000 Mbps downstream.

The ADSL Data-Only option does not provide the ability to transmit voice communications.

When the ADSL customer's TSP uses Telephone Company-provided ETS to connect its CDP to the DSL Access Service Connection Point and where suitable facilities exist, the TSP may also use ETS MultiMedia Virtual Circuit Channels (MM-VCCs) in conjunction with ADSL Access Service to supplement the high speed multimedia transmission capabilities available on the ADSL customer's Voice-Data. The availability and use of ETS MM-VCCs are subject to the requirements specified in 16.3.4(A)(6)(a)(i), following.

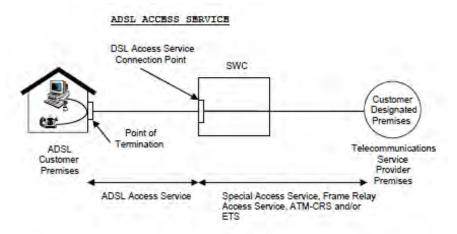
A generic view of how ADSL Access Service could be interconnected with a TSP's network is depicted in the figures following. In the first example, the customer's ADSL-equipped Serving Wire Center and associated DSL Access Service Connection Point are located in the same office within the Telephone Company's operating territory. The ADSL Access Service customer orders ADSL Access Service pursuant to the provisions specified in this section. The ADSL Access Service customer's TSP orders Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) and/or Ethernet Transport Service (ETS) pursuant to the provisions specified in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following, to connect its customer designated premises to the DSL Access Service Connection Point.

ACCESS SERVICE

8. <u>Digital Subscriber Line Access Service</u> (Cont'd)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.1 General (Cont'd)



In the example shown below, the DSL Access Service Connection Point is located outside the Telephone Company's operating territory in another telephone company's operating territory and the customer's TSP uses special access service to connect its CDP to that DSL Access Service Connection Point. The ADSL Access Service customer orders ADSL Access Service pursuant to the provisions specified in this section. In order to connect its customer designated premises to the DSL Access Service Connection Point, the ADSL Access Service customer's TSP orders equivalent special access service from the other telephone company.

ADSL ACCESS SERVICE EC A EC B DSL Access Service Point of Termination Connection Point SWC SWC Customer Designated Premises Telecommunications ADSL Customer Service Provider Premises Premises Special Access Service ADSL Access Service

(N)

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.2 Limitations

- (A) Except as described in Section 8.1.1, preceding, ADSL Access Service is available as two service options. Where suitable facilities exist, the Telephone Company will offer ADSL Access Service at the following maximum upstream (i.e., from the customer's equipment up to the DSL Access Service Connection Point) and downstream (i.e., from the DSL Access Service Connection Point down to the customer's equipment) speeds:
 - (1) 1 Mbps upstream/6 Mbps downstream in compliance with the requirements specified in Technical References:

ATIS-0600413.2009,

ITU-T G.983.1-January 2005,

ITU-T G.983.2-July 2005,

ITU-T G.983.3-March 2001,

ITU-T G.983.4-November 2001,

ITU-T G.984.1-March 2008,

ITU-T G.984.2-March 2003,

ITU-T G.984.3-March 2008,

ITU-T G.984.4-February 2008,

ITU-T G.992.1-June 1999,

ITU-T G.992.3-January 2005,

ITU-T G.992.4-July 2002,

ITU-T G.992.5-January 2005,

ITU-T G.993.1-June 2004,

ITU-T G.993.2-February 2006,

ITU-T G.9700-April 2014,

ITU-T G.9701-December 2014,

and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67, unless otherwise specified in Section 8.1.6, following.

Issued: June 16, 2017

ACCESS SERVICE

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.2 <u>Limitations</u> (Cont'd)
 - (A) (Cont'd)
 - (2) 1 Mbps upstream/10 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001. ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, ITU-T G.992.1-June 1999, ITU-T G.992.3-January 2005, ITU-T G.992.4-July 2002, ITU-T G.992.5-January 2005, ITU-T G.993.1-June 2004, ITU-T G.993.2-February 2006, ITU-T G.9700-April 2014, ITU-T G.9701-December 2014, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67, unless otherwise specified in Section 8.1.6, following.

(3) 3 Mbps upstream/15 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001, ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, ITU-T G.992.5-January 2005, ITU-T G.993.1-June 2004, ITU-T G.993.2-February 2006, ITU-T G.9700-April 2014, ITU-T G.9701-December 2014, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

Transmittal No. 4

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.2 <u>Limitations</u> (Cont'd)
 - (A) (Cont'd)
 - (4) 3 Mbps upstream/25 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001, ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, ITU-T G.993.1-June 2004, ITU-T G.993.2-February 2006, ITU-T G.9700-April 2014, ITU-T G.9701-December 2014, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

(5) 25 Mbps upstream/50 Mbps downstream or 50 Mbps upstream/100 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001, ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, ITU-T.G 993.1-June 2004, ITU-T G.993.2-February 2006, ITU-T G.9700-April 2014, ITU-T G.9701-December 2014, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

(N)

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.2 <u>Limitations</u> (Cont'd)
 - (A) (Cont'd)
 - (6) 100 Mbps upstream/200 Mbps downstream or 100 Mbps upstream/500 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001, ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, ITU-T G.9700-April 2014, ITU-T G.9701-December 2014, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

(7) 100 Mbps upstream/1000 Mbps downstream in compliance with the requirements specified in Technical References:

ITU-T G.983.1-January 2005, ITU-T G.983.2-July 2005, ITU-T G.983.3-March 2001, ITU-T G.983.4-November 2001, ITU-T G.984.1-March 2008, ITU-T G.984.2-March 2003, ITU-T G.984.3-March 2008, ITU-T G.984.4-February 2008, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

These peak speeds are not guaranteed by the Telephone Company due to factors that may affect the actual speeds delivered, including the ADSL Access Service customer's distance from the Telephone Company Serving Wire Center, condition of the existing exchange service facilities, and any capacity limitations in the TSP's network design.

(B) The Telephone Company does not provide customer premises equipment (CPE) in conjunction with the ADSL Access Service offering.

(N)

8. Digital Subscriber Line Access Service (Cont'd)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.2 <u>Limitations</u> (Cont'd)

- (C) ADSL Access Service may not be used in conjunction with multi-point Special Access Service configurations as described in Section 7.1.3, preceding.
- (D) ADSL Access Service will be furnished where suitable facilities exist as determined by the Telephone Company. The Telephone Company will identify its ADSL-equipped Serving Wire Centers and DSL Access Service Connection Point Serving Wire Centers in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.
- (E) ADSL Access Service will be provided over existing Telephone Company local exchange service facilities. When the customer orders the ADSL Voice-Data option, the rates and regulations for ADSL Access Service are in addition to any rates and regulations that apply for the associated local exchange service line provided under the terms and conditions in the Telephone Company's general and/or local exchange service tariffs. The Telephone Company will automatically disconnect the ADSL Access Service Voice-Data option when the associated local exchange service line is disconnected for any reason.
- (F) Rates and regulations for Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service and Ethernet Transport Service provided under this tariff will apply for the access service(s) provided between the TSP's customer designated premises and the DSL Access Service Connection Point, as described in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following.

8.1.3 <u>Undertaking of the Telephone Company</u>

Where technically feasible, the Telephone Company will offer ADSL Access Service as described in Section 8.1.2, preceding. The Telephone Company will provide ADSL Access Service at rates and charges as set forth in Sections 17.8.1, as follows:

(N)

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.3 <u>Undertaking of the Telephone Company</u> (Cont'd)
 - (A) The Telephone Company will determine if the associated local exchange service line or facilities are suitable for use with the ADSL Access Service option ordered by the customer. Service will not be provided on lines that the Telephone Company determines are not suitable for ADSL Access Service or on lines that produce interference with other services provided by the Telephone Company.
 - (B) The Telephone Company, after determining if the facilities are suitable for ADSL Access Service, will notify the customer if any additional CPE is necessary to support ADSL Access Service.
 - (C) The Telephone Company will provision and maintain ADSL Access Service from the DSL Access Service Connection Point to the Point of Termination at the ADSL Access Service customer's premises.

8.1.4 Obligations of the Customer

In addition to the regulations described in other sections of this tariff, the following provisions apply to ADSL Access Service:

- (A) The customer is responsible for providing the Telephone Company with the necessary information to provision ADSL Access Service (e.g., customer name, telephone number and premises address; billing name and address when different from the customer name and premise address; its internet Protocol (IP) address; and the contact name and telephone number of the TSP with which the customer's ADSL Access Service will interconnect).
- (B) The customer is responsible for providing and maintaining all required CPE, which is compatible with ADSL Access Service and complies with the applicable Technical References specified in Section 8.1.2(A), preceding.

ACCESS SERVICE

8. <u>Digital Subscriber Line Access Service</u> (Cont'd)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.5 <u>Rate Regulations</u>

This section contains the regulations governing the rates and charges that apply for ADSL Access Service. Regulations governing the rates and charges for the Special Access Service, Frame Relay Access Service, Regulations governing the rates and charges for the Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service and Ethernet Transport Service provided under this tariff used in conjunction with ADSL Access Service are as specified in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following.

(A) Minimum Period

The minimum period for which ADSL Access Service is provided to a customer and for which charges are applicable is one month.

(B) Moves

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

- The Point of Termination at the ADSL Access Service customer designated premises
- The ADSL Access Service customer designated premises

The provisions for moves of ADSL Access Service are the same as those described in Section 7.2.3, preceding, except that an Access Order Charge will not apply to move orders for the ADSL Access Service Voice-Data option.

(C) <u>Temporary Suspension of Service</u>

When an end user temporarily suspends the local exchange service that is associated with an ADSL Voice-Data option, the ADSL Voice-Data option will also be placed on temporary suspension for the same period of time, and the Telephone Company will bill the customer a temporary suspension fee, per line, per occasion, as described in Section 17.8.4, following. The Telephone Company will not bill the customer the monthly ADSL Voice-Data Line Charge while the ADSL Voice-Data option is placed on temporary suspension.

(D) Reserved for Future Use

(N)

ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)

8.1.5 Rate Regulations (Cont'd)

(E) <u>Rate Categories</u>

There are two types of rates and charges applicable to ADSL Access Service. These are monthly rates and nonrecurring charges.

- (1) The monthly rate for the ADSL Line Charge applies each month or fraction thereof for each ADSL Voice-Data option and ADSL Data-Only option ordered by the customer.
- (2) A nonrecurring charge applies for each ADSL Voice-Data and ADSL Data-Only option ordered by the customer for the installation of ADSL Access Service. The nonrecurring installation charge will be waived for each new ADSL Voice-Data option and ADSL Data-Only option Access Line ordered when the customer commits to retain the ADSL Access Line for a minimum period of 6 months following installation of service. If the ADSL Access Line is disconnected for any reason prior to the end of the 6-month minimum commitment period, other than for:
 - an ADSL service upgrade as described in(5), below,
 - a discontinuance of service within the first 30 days of service as described in (6), below, or
 - a discontinuance of service due to a fire, flood or other occurrence as described in (7), below;
- (3) The Telephone Company will bill the customer an early termination fee, as described in Section 17.8.4, following, for each ADSL Voice-Data and Data-Only option disconnected by the customer, prior to satisfying the 6-month minimum commitment period.
- (4) Except as otherwise specified in Section 8.1.5(E)(5), below, changes to an existing ADSL Access Service will be treated as a discontinuance of the existing service and an installation of a new service. Such changes include any ADSL speed or option change that does not qualify as an ADSL service upgrade as described below or a change of TSP. A nonrecurring installation charge will apply per ADSL Access Service line for this work activity.

(N)

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.5 Rate Regulations (Cont'd)
 - (E) <u>Rate Categories</u> (Cont'd)
 - (5) Where suitable facilities exist, an ADSL service upgrade includes any increase in the customer's existing ADSL speed level to any currently available tariffed upstream and/or downstream speed level. Such ADSL service upgrade may also include a simultaneous change in service option (i.e., replacing ADSL Data-Only with ADSL Voice-Data, or vice versa), a simultaneous change in service type (i.e., replacing ADSL with SDSL, or vice versa) or a simultaneous change in service option and service type.

When a customer requests a qualifying ADSL service upgrade, the Telephone Company will not apply a nonrecurring installation charge to the upgraded service. If at the time the customer requests a qualifying ADSL service upgrade, it had an unfulfilled 6-month commitment on its original ADSL service, the Telephone Company will not bill the early termination fee for the original ADSL service so long as the customer continues with the upgraded service to fulfill its original 6-month minimum commitment.

If the customer notifies the Telephone Company, in writing, within 90 days following the qualifying service upgrade, that it elects to revert back to its original ADSL speed and service option, the Telephone Company will return the customer to its original ADSL speed and service option at no charge.

(6) For an ADSL customer who disconnects service within the first 30 days following installation, the Telephone Company will not bill the customer the early termination fee provided: 1) the customer had not previously had ADSL Access Service at the same location within the 30 days immediately prior to installing service and 2) the customer's ADSL Access Service is disconnected by no later than the first business day following the 30th day after service was installed.

(N)

ACCESS SERVICE

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.1 <u>Asymmetric Digital Subscriber Line (ADSL) Access Service</u> (Cont'd)
 - 8.1.5 Rate Regulations (Cont'd)
 - (E) <u>Rate Categories</u> (Cont'd)
 - (7) When a customer disconnects its ADSL Access Service prior to the expiration of its 6-month minimum commitment as a result of a fire, flood or other occurrence, as described in Section 2.4.5, preceding, the Telephone Company will not bill the early termination fee.
 - (8) The following administrative changes will be made without charge to the customer:
 - Change of customer premises address when the change of address is not a result of a physical relocation of equipment,
 - Change of the associated local exchange service line over which ADSL Voice-Data Access Service is provided when there is no physical relocation of the ADSL Access Service involved,
 - Change in billing data (name, address or contact name or telephone),
 - Change of billing account number,
 - Change of agency authorization that requires no changes to the Telephone Company's network,
 - Change in the ADSL Access Service customer's existing IP address when requested by the customer's TSP,
 - Change to limit the data speed delivered over the customer's existing ADSL Access Service line when requested by the customer's TSP.
 - Change of customer contact name or telephone number, and
 - Change of jurisdiction.
 - (9) The nonrecurring installation charge will not apply to restore an ADSL Access Service that was temporarily suspended by the Telephone Company for non-payment of charges.
 - (10) Rates and charges for ADSL Access Service are as set forth in Section 17.8.3, following, when the customer purchases ADSL Access Service under the DSL Access Service Wholesale Pricing Plan as described in Section 8.5, following.

8. Digital Subscriber Line Access Service (Cont'd)

8.2 Symmetric Digital Subscriber Line (SDSL) Access Service

(M) (D) (M) (D)

8.2.1 General

(N)

Symmetric Digital Subscriber Line (SDSL) Access Service provides the customer the ability to transmit data to (upstream rate) and receive data from (downstream rate) a DSL Access Service Connection Point at the same speed using the Telephone Company's existing local exchange service facilities. A DSL Access Service Connection Point is an interconnection point designated by the Telephone Company in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4 at which the customer may interconnect its SDSL Access Service provided by the Telephone Company under this tariff or its wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis with the tariffed, interstate access services described below. The DSL Access Service Connection Point aggregates SDSL Access Service and/or wireline broadband Internet transmission service data traffic from and to suitably equipped Telephone Company Serving Wire Centers (SWCs). The DSL Access Service Connection Point may be located within the operating territory of the Telephone Company for connections to Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) or Ethernet Transport Service (ETS). As specified below, the DSL Access Service Connection Point may also be located in the operating territory of another telephone company for connections to special access service, frame relay access service, or Ethernet access service, provided both telephone companies agree to such an arrangement.

When both the SDSL-equipped SWC and its associated DSL Access Service Connection Point are located within the Telephone Company's operating territory, the customer's SDSL Access Service must be connected to the customer designated premises of a single telecommunications service provider (TSP) using the Telephone Company's Special Access Service, Frame Relay Access Service, ATM-CRS, or ETS provided under this tariff.

When both the SDSL-equipped SWC from which the Telephone Company provides local exchange and exchange access services and its associated DSL Access Service Connection Point are located in the operating territory of another telephone company, the customer's SDSL Access Service must be connected to the customer designated premises of a single TSP using either equivalent special access service, frame relay access service, asynchronous transfer mode or Ethernet access service provided by the other telephone company.

(N)

Effective: July 1, 2017

Certain material presently found on this page previously appeared on Original Page 8-1.

Transmittal No. 4

Issued: June 16, 2017

ACCESS SERVICE

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.1 General (Cont'd)

When the SDSL-equipped SWC is located within the Telephone Company's operating territory and its associated DSL Access Service Connection Point is located in the operating territory of another telephone company, the customer's SDSL Access Service must be connected to the customer designated premises of a single TSP using either equivalent special access service, frame relay access service, asynchronous transfer mode or Ethernet access service provided by the other telephone company.

When the SDSL-equipped SWC from which the Telephone Company provides local exchange and exchange access services is located in the operating territory of another telephone company and the DSL Access Service Connection Point is located within the Telephone Company's operating territory, the customer's SDSL Access Service must be connected to the customer designated premises of a single TSP using the Telephone Company's Special Access Service, Frame Relay Access Service, ATM-CRS or ETS provided under this tariff.

Where technically feasible, SDSL Access Service is available as two service options, i.e., SDSL Voice-Data and SDSL Data-Only.

- (A) Using the Telephone Company's existing local exchange service line, the SDSL Voice-Data option provides transmission of data signals at peak data transmission speeds of:
 - 256 kbps,
 - 768 kbps,
 - 10 Mbps,
 - 50 Mbps,
 - 100 Mbps,
 - 200 Mbps,
 - 500 Mbps, or
 - 1000 Mbps.

This option may be used for simultaneous voice and data communications.

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)
 - 8.2.1 General (Cont'd)
 - (B) Using the Telephone Company's existing local exchange facilities, the SDSL Data-Only option provides transmission of data signals at peak transmission speeds of:
 - 144 kbps,
 - 256 kbps,
 - 768 kbps,
 - 10 Mbps,
 - 50 Mbps,
 - 100 Mbps,
 - 200 Mbps,
 - 500 Mbps, or
 - 1000 Mbps.

This option does not provide the ability to transmit voice communications.

When the SDSL customer's TSP uses Telephone Company-provided ETS to connect its CDP to the DSL Access Service Connection Point and where suitable facilities exist, the TSP may also use ETS MultiMedia Virtual Circuit Channels (ETS MM-VCCs) in conjunction with SDSL Access Service to supplement the high speed multimedia transmission capabilities available on the SDSL customer's Voice-Data. The availability and use of ETS MM-VCCs are subject to the requirements specified in Section 16.3.4(A)(6)(a)(i), following.

ACCESS SERVICE

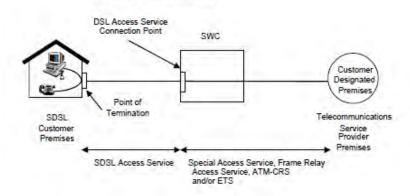
8. <u>Digital Subscriber Line Access Service</u> (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.1 General (Cont'd)

A generic view of how SDSL Access Service could be interconnected with a TSP's network is depicted in the figures following. In the first example, the customer's SDSL-equipped Serving Wire Center and associated DSL Access Service Connection Point are located in the same office within the Telephone Company's operating territory. The SDSL Access Service customer orders SDSL Access Service pursuant to the provisions specified in this section. The SDSL Access Service customer's TSP orders Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) and/or Ethernet Transport Service (ETS) pursuant to the provisions specified in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following, to connect its customer designated premises to the DSL Access Service Connection Point.

SDSL ACCESS SERVICE



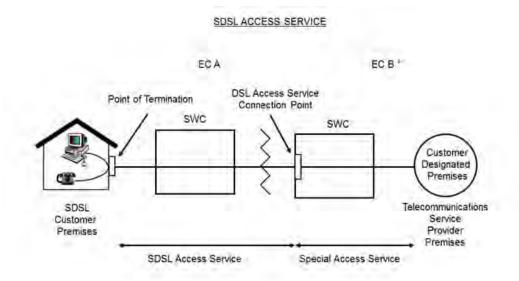
ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.1 General (Cont'd)

In the example shown below, the DSL Access Service Connection Point is located outside the Telephone Company's operating territory in another telephone company's operating territory and the customer's TSP uses special access service to connect its CDP to that DSL Access Service Connection Point. The SDSL Access Service customer orders SDSL Access Service pursuant to the provisions specified in this section. In order to connect its customer designated premises to the DSL Access Service Connection Point, the SDSL Access Service customer's TSP orders equivalent special access service from the other telephone company.



ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.2 Limitations

Except as described in Section 8.2.1, preceding, SDSL Access Service is available as two service options. Where suitable facilities exist, the Telephone Company will offer SDSL Access Service at speeds of 10 Mbps upstream/10 Mbps downstream, 50 Mbps upstream/50 Mbps downstream and 100 Mbps upstream/100 Mbps downstream in compliance with the requirements specified in the following Technical References:

```
ITU-T G.983.1-January 2005,
ITU-T G.983.2-July 2005,
ITU-T G.983.3-March 2001,
ITU-T G.983.4-November 2001,
ITU-T G.984.1-March 2008,
ITU-T G.984.2-March 2003,
ITU-T G.984.3-March 2008,
ITU-T G.984.4-February 2008,
ITU-T G.993.1-June 2004,
ITU-T G.993.2-February 2006,
ITU-T G.9700-April 2014,
ITU-T G.9701-December 2014,
and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.
```

Where suitable facilities exist, the Telephone Company will offer SDSL Access Service at speeds of 200 Mbps upstream/200 Mbps downstream and 500 Mbps upstream/500 Mbps downstream in compliance with the requirements specified in the following Technical References:

```
ITU-T G.983.1-January 2005,
ITU-T G.983.2-July 2005,
ITU-T G.983.3-March 2001,
ITU-T G.983.4-November 2001,
ITU-T G.984.1-March 2008,
ITU-T G.984.2-March 2003,
ITU-T G.984.3-March 2008,
ITU-T G.984.4-February 2008,
ITU-T G.9700-April 2014,
ITU-T G.9701-December 2014,
and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.
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8. Digital Subscriber Line Access Service (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.2 <u>Limitations</u> (Cont'd)

Where suitable facilities exist, the Telephone Company will offer SDSL Access Service at speeds of 1000 Mbps upstream/1000 Mbps downstream in compliance with the requirements specified in the following Technical References:

ITU-T G.983.1 – January 2005, ITU-T G.983.2 – July 2005, ITU-T G.983.3 – March 2001, ITU-T G.983.4 – November 2001, ITU-T G.984.1 – March 2008, ITU-T G.984.2 – March 2003, ITU-T G.984.3 – March 2008, ITU-T G.984.4 – February 2008, and/or IEEE Std. 802.3-2008, Part 3, Section 5, Clauses 56 through 67.

Peak speeds are not guaranteed by the Telephone Company due to factors that may affect the actual speeds delivered, including the SDSL Access Service customer's distance from the Telephone Company Serving Wire Center, condition of the existing local exchange service facilities, and any capacity limitations in the TSP's network design.

The Telephone Company does not provide customer premises equipment (CPE) in conjunction with the SDSL Access Service offering.

SDSL Access Service may not be used in conjunction with multi-point Special Access Service configurations as described in Section 7.1.3, preceding.

SDSL Access Service will be furnished where suitable facilities exist as determined by the Telephone Company. The Telephone Company will identify its SDSL-equipped Serving Wire Centers and DSL Access Service Connection Point Serving Wire Centers in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

ACCESS SERVICE

8. <u>Digital Subscriber Line Access Service</u> (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.2 <u>Limitations</u> (Cont'd)

SDSL Access Service will be provided over existing Telephone Company local exchange service facilities. When the customer orders the SDSL Voice-Data option, the rates and regulations for SDSL Access Service are in addition to any rates and regulations that apply for the associated local exchange service line provided under the terms and conditions in the Telephone Company's general and/or local exchange service tariffs. The Telephone Company will automatically disconnect the SDSL Access Service Voice-Data option when the associated local exchange service line is disconnected for any reason.

Rates and regulations for Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service and Ethernet Transport Service provided under this tariff will apply for the access service(s) provided between the TSP's customer designated premises and the DSL Access Service Connection Point, as described in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following.

8.2.3 <u>Undertaking of the Telephone Company</u>

The Telephone Company will provide SDSL Access Service at the rates and charges set forth in Sections 17.8.2, as follows:

- (A) The Telephone Company will determine if the associated local exchange service line or facilities are suitable for use with the SDSL Access Service option ordered by the customer. Service will not be provided on facilities that the Telephone Company determines are not suitable for SDSL Access Service or on facilities that produce interference with other services provided by the Telephone Company.
- (B) The Telephone Company, after determining if the facilities are suitable for SDSL Access Service, will notify the customer if the customer's CPE is compatible with the equipment deployed in the Telephone Company's Serving Wire Center and if any additional CPE is necessary to support SDSL Access Service.
- (C) The Telephone Company will provision and maintain SDSL Access Service from the DSL Access Service Connection Point to the Point of Termination at the SDSL Access Service customer's premises.

8. Digital Subscriber Line Access Service (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.4 Obligations of the Customer

In addition to the regulations described in other sections of this tariff, the following provisions apply to SDSL Access Service:

- (A) The customer is responsible for providing the Telephone Company with the necessary information to provision SDSL Access Service (e.g., customer name, telephone number and premises address; billing name and address when different from the customer name and premises address; its Internet Protocol (IP) address; and the contact name and telephone number of the TSP with which the customer's SDSL Access Service will interconnect).
- (B) The customer is responsible for providing and maintaining all required customer provided equipment (CPE), which is compatible with SDSL Access Service and complies with the applicable Technical References specified in Section 8.2.2, preceding.

8.2.5 <u>Rate Regulations</u>

This section contains the regulations governing the rates and charges that apply for SDSL Access Service. Regulations governing the rates and charges for the Special Access Service, Frame Relay Access Service, Asynchronous Transfer Mode Cell Relay Access Service and Ethernet Transport Service provided under this tariff used in conjunction with SDSL Access Service are as specified in Section 7, preceding, and Sections 16.1, 16.2 and 16.3, following.

(A) Minimum Period

The minimum period for which SDSL Access Service is provided to a customer and for which charges are applicable is one month.

(N)

ACCESS SERVICE

8. <u>Digital Subscriber Line Access Service</u> (Cont'd)

8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)

8.2.5 <u>Rate Regulations</u> (Cont'd)

(B) Moves

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

- The Point of Termination at the SDSL Access Service customer designated premises
- The SDSL Access Service customer designated premises

The provisions for moves of SDSL Access Service are the same as those described in Section 7.2.3, preceding, except that an Access Order Charge will not apply to move orders for the SDSL Access Service Voice-Data option.

(C) <u>Temporary Suspension of Service</u>

When an end user temporarily suspends the local exchange service that is associated with a SDSL Voice-Data option, the SDSL Voice-Data option will also be placed on temporary suspension for the same period of time, and the Telephone Company will bill the customer a temporary suspension fee, per line, per occasion, as described in Section 17.8,4, following. The Telephone Company will not bill the customer the monthly SDSL Voice-Data Line Charge while the SDSL Voice-Data option is placed on temporary suspension.

(D) Reserved for Future Use

(E) Rate Categories

There are two types of rates and charges applicable to SDSL Access Service. These are monthly rates and nonrecurring charges.

- (1) The monthly rate for the SDSL Line Charge applies each month or fraction thereof for each SDSL Voice-Data option and SDSL Data-Only option ordered by the customer.
- (2) A nonrecurring charge applies for each SDSL Voice-Data and SDSL Data-Only option ordered by the customer for the installation of SDSL Access Service.

(N)

8. Digital Subscriber Line Access Service (Cont'd)

(N)

- 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)
 - 8.2.5 Rate Regulations (Cont'd)
 - (E) <u>Rate Categories</u> (Cont'd)

The nonrecurring installation charge will be waived for each new SDSL Voice-Data or Data-Only 256 kbps option Access Line ordered when: 1) the customer has not previously had any ADSL or SDSL Access Service at the same location within the three months immediately prior to installing service and 2) the customer commits to retain the SDSL Voice-Data or Data-Only 256 kbps option Access Line for a minimum period of 6 months following installation of service.

The nonrecurring installation charge will be waived for each new SDSL Data-Only 144 kbps, SDSL Voice-Data or Data-Only 768 kbps, SDSL Voice-Data or Data-Only 10 Mbps, SDSL Voice-Data or Data-Only 50 Mbps, SDSL Voice-Data or Data-Only 100 Mbps, SDSL Voice-Data or Data-Only 200 Mbps, SDSL Voice-Data or Data-Only 500 Mbps, or SDSL Voice-Data or Data-Only 1000 Mbps option Access Line ordered when the customer commits to retain the SDSL Access Line for a minimum period of 6 months following installation of service.

If the SDSL Voice-Data or Data-Only option Access Line is disconnected for any reason prior to the end of the 6-month minimum commitment period, other than for:

- an SDSL service upgrade as described in (5), below,
- a discontinuance of service within the first 30 days of service as described in (6), below, or
- a discontinuance of service due to a fire, flood or other occurrence as described in (7), below;
- (3) The Telephone Company will bill the customer an early termination fee, as described in Section 17.8,4, following, for each SDSL Voice-Data or Data-Only option disconnected by the customer, prior to satisfying the 6-month minimum commitment period.

ACCESS SERVICE

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)
 - 8.2.5 <u>Rate Regulations</u> (Cont'd)
 - (E) <u>Rate Categories</u> (Cont'd)
 - (4) Except as otherwise specified in Section 8.2.5(E)(5), below, changes to an existing SDSL Access Service will be treated as a discontinuance of the existing service and an installation of a new service. Such changes include any SDSL speed or option change that does not qualify as an SDSL service upgrade as described below or a change of TSP. A nonrecurring installation charge will apply per SDSL Access Service line for this work activity.
 - (5) Where suitable facilities exist, an SDSL service upgrade includes any increase in the customer's existing SDSL speed level to any currently available tariffed upstream and/or downstream speed level. Such SDSL service upgrade may also include a simultaneous change in service option (i.e., replacing SDSL Data-Only with SDSL Voice-Data, or vice versa), a simultaneous change in service type (i.e., replacing SDSL with ADSL, or vice versa) or a simultaneous change in service option and service type.

When a customer requests a qualifying SDSL service upgrade, the Telephone Company will not apply a nonrecurring installation charge to the upgraded service. If at the time the customer requests a qualifying SDSL service upgrade, it had an unfulfilled 6-month commitment on its original SDSL service, the Telephone Company will not bill the early termination fee for the original SDSL service so long as the customer continues with the upgraded service to fulfill its original 6-month minimum commitment.

If the customer notifies the Telephone Company, in writing, within 90 days following the qualifying service upgrade, that it elects to revert back to its original SDSL speed and service option, the Telephone Company will return the customer to its original SDSL speed and service option at no charge.

(N)

ACCESS SERVICE

- 8. <u>Digital Subscriber Line Access Service</u> (Cont'd)
 - 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)
 - 8.2.5 Rate Regulations (Cont'd)
 - (E) Rate Categories (Cont'd)
 - (6) For an SDSL customer who disconnects service within the first 30 days following installation, the Telephone Company will not bill the customer the early termination fee provided: 1) the customer had not previously had SDSL Access Service at the same location within the 30 days immediately prior to installing service and 2) the customer's SDSL Access Service is disconnected by no later than the first business day following the 30th day after service was installed.
 - (7) When a customer disconnects its SDSL Access Service prior to the expiration of its 6-month minimum commitment as a result of a fire, flood or other occurrence, as described in Section 2.4.5, preceding, the Telephone Company will not bill the early termination fee.
 - (8) The following administrative changes will be made without charge to the customer:
 - Change of customer premises address when the change of address is not a result of physical relocation of equipment,
 - Change of the associated local exchange service line over which SDSL Voice-Data Access Service is provided when there is no physical relocation of the SDSL Access Service involved,
 - Change in billing data (name, address or contact name or telephone),
 - Change of billing account number,
 - Change of agency authorization that requires no changes to the Telephone Company's network,
 - Change in the SDSL Access Service customer's existing IP address when requested by the customer's TSP,
 - Change to limit the data speed delivered over the customer's existing SDSL Access Service line when requested by the customer's TSP.
 - Change of customer contact name or telephone number, and
 - Change of jurisdiction.

ACCESS SERVICE (N)

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.2 <u>Symmetric Digital Subscriber Line (SDSL) Access Service</u> (Cont'd)
 - 8.2.5 <u>Rate Regulations</u> (Cont'd)
 - (E) <u>Rate Categories</u> (Cont'd)
 - (9) The nonrecurring installation charge will not apply to restore a SDSL Access Service that was temporarily suspended by the Telephone Company for non-payment of charges.
 - (10) Rates and charges for SDSL Access Service are as set forth in Section 17.8.3, following, when the customer purchases SDSL Access Service under the DSL Access Service Wholesale Pricing Plan as described in Section 8.5, following.
 - 8.3 Reserved for Future Use
 - 8.4 Reserved for Future Use

ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.5 <u>DSL Access Service Wholesale Pricing Plan</u>

8.5.1 General

The telecommunications services offered under the DSL Access Service Wholesale Pricing Plan (DSL WPP) are provided at wholesale rates to the customer under the conditions listed below.

- (A) The customer purchases ADSL and/or SDSL Access Service as described in Sections 8.1 and 8.2, preceding, for the purpose of combining these telecommunications services with its own information service(s) to create a new retail service for sale to its end user customer(s).
- (B) In addition to the obligations specified in Sections 8.1.4 and 8.2.4, preceding, the customer assumes the following obligations:
 - (1) The customer will deal directly with its end user customers with respect to all matters pertaining to the service provided, including marketing, sales, ordering, installation, maintenance, trouble reporting, repair, billing and collections. The customer will not direct its end users to contact the Telephone Company for any aspect of the service the customer provides.
 - (2) The customer will submit orders for ADSL and/or SDSL Access Service to the Telephone Company in a format and manner designated by the Telephone Company.
 - (3) The customer will obtain the appropriate authorization to allow the Telephone Company to provision ADSL and/or SDSL Voice-Data Access Service over the customer's end user's existing telephone exchange service line.

When the customer purchases ADSL and/or SDSL Access Service under the DSL WPP, the rates and charges in Section 17.8,3, following, will apply in lieu of the rates and charges specified in Section 17.8.1, following, for ADSL Access Service and/or in Section 17.8.2, following, for SDSL Access Service.

ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.5 <u>DSL Access Service Wholesale Pricing Plan</u> (Cont'd)

8.5.1 General (Cont'd)

Services provided under the DSL WPP are available under a DSL WPP Monthly Plan at the rates and charges specified in Section 17.8.3(A), following, or under a DSL WPP Term Plan described in 8.5.2, below, at the rates and charges specified in Section 17.8.3(B), following. A customer with a DSL WPP Term Plan cannot also have a DSL WPP Monthly Plan as all ADSL and/or SDSL Access Service lines within the Telephone Company's study area are included in the DSL WPP Term Plan.

An Access Order Charge will not apply:

- To establish a new DSL WPP Monthly Plan, DSL WPP Term Plan or DSL WPP Volume Pricing Plan.
- To change an existing DSL WPP Term Plan or DSL WPP Volume Pricing Plan.
- To convert from an existing DSL WPP Monthly Plan to a DSL WPP Term Plan and vice versa.
- To terminate an existing DSL WPP Monthly Plan, DSL WPP Term Plan, or DSL WPP Volume Pricing Plan.

A monthly charge applies for each ADSL and/or SDSL Access Service line covered under the DSL WPP. A nonrecurring charge applies for the installation of each ADSL and/or SDSL Access Service line under the DSL WPP.

The Telephone Company will convert in-service ADSL and/or SDSL Access Service lines originally purchased under the provisions specified in Sections 8.1 and 8.2, preceding, to the DSL WPP, provided the customer obtains written authorization from its end users authorizing such conversions, where necessary. Per line nonrecurring charges specified in Section 17.8, following, do not apply to the conversion of in-service ADSL and/or SDSL Access Lines to a DSL WPP.

ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.5 <u>DSL Access Service Wholesale Pricing Plan</u> (Cont'd)

8.5.2 DSL WPP Term Plan

(A) <u>Description</u>

The DSL WPP Term Plan provides the customer with reduced rates based on the length of the customer's term commitment for all of the customer's ADSL and/or SDSL Access Service lines provided in the Telephone Company's study area. The DSL WPP Term Plan is available for term lengths of one or three years. The Telephone Company will establish for the customer a single term plan commitment that will apply to all ADSL and/or SDSL Access Service lines in the Telephone Company's study area.

When the customer subscribes to a DSL WPP Term Plan, all in-service ADSL and/or SDSL Access Service lines provided out of and subsequently installed in the Telephone Company's study area will be billed the rates and charges specified in Section 17.8.3(B), following, for the length of the term commitment.

If the Telephone Company decreases the rates specified in Section 17.8.3(B), following, during the term of a commitment period, the decreased rates will automatically be applied for the remainder of the current commitment period.

At the end of the DSL WPP Term Plan, the customer may elect to establish a new DSL WPP Term Plan commitment, convert to the rates available under the DSL WPP Monthly Plan, or discontinue service. If the customer does not make an election by the end of the DSL WPP Term Plan, the rates for all in-service ADSL and/or SDSL Access Service lines will automatically be converted to the rates available under the DSL WPP Monthly Plan specified in Section 17.8.3(A), following.

A DSL WPP Term Plan is subject to payment for early termination as described in (D), below.

8. Digital Subscriber Line Access Service (Cont'd)

8.5 <u>DSL Access Service Wholesale Pricing Plan</u> (Cont'd)

8.5.2 DSL WPP Term Plan (Cont'd)

(B) Upgrades in DSL WPP Term Plan

A customer may terminate a DSL WPP Term Plan without the application of a termination liability charge when the customer replaces its original DSL WPP Term Plan commitment with a new DSL WPP Term Plan commitment period for the new DSL WPP Term Plan meets or exceeds the number of months remaining in the existing DSL WPP Term Plan commitment period.

(C) <u>Termination without Liability</u>

A customer may terminate a DSL WPP Term Plan commitment without the application of a termination liability charge if the Telephone Company increases the DSL WPP Term Plan rates described in Section 17.8.3(B), following, during the term of the existing commitment. The customer has 90 days following such rate increase to notify the Telephone Company in writing of its intent to terminate its DSL WPP Term Plan commitment under this section; otherwise, the increased rates will apply for the remainder of the commitment period.

(D) <u>Termination with Liability</u>

If the customer elects to terminate its DSL WPP Term Plan prior to the end of the commitment period for any reason other than specified in (B) or (C), above, a termination liability charge will apply. If the DSL WPP Term Plan is terminated prior to the end of the commitment period, the Telephone Company will bill the customer an early termination charge of \$200.00 multiplied by the number of months remaining in the commitment period.

DSL WPP Monthly Plan rates as described in Section 17.8.3(A), following, will apply to all in-service ADSL and/or SDSL Access Lines following the early termination of a DSL WPP Term Plan.

(N)

ACCESS SERVICE

8. Digital Subscriber Line Access Service (Cont'd)

8.5 <u>DSL Access Service Wholesale Pricing Plan</u> (Cont'd)

8.5.2 DSL WPP Term Plan (Cont'd)

(E) <u>DSL Volume Pricing Plan</u>

The DSL Volume Pricing Plan (DSL VPP) is an optional pricing plan that provides the DSL WPP Term Plan customer with a discount applied against the monthly ADSL and/or SDSL Line Charges for all of its inservice lines in the Telephone Company's study area. In order to subscribe to and retain the DSL VPP, the customer must have a DSL WPP Term Plan commitment with the Telephone Company. The amount of the DSL VPP discount applied is based on the level of the monthly volume commitment selected by the DSL WPP Term Plan customer. The DSL VPP discount does not apply to any rate elements other than the monthly recurring DSL WPP Term Plan Line Charges specified in Section 17.8.3(B), following.

The customer will select its monthly volume commitment level based on its projected number of monthly in-service ADSL and SDSL Access Service lines within the Telephone Company's study area.

In-service ADSL and SDSL Access Service lines billed under the DSL WPP Monthly Plan are not eligible for the DSL VPP discount.

Available DSL VPP commitment levels and associated discounts are specified in Section 17.8.3(B)(3), following.

The customer may order the DSL VPP at the same time it establishes a DSL WPP Term Plan commitment or at any time prior to the expiration of the existing DSL WPP Term Plan. The DSL VPP monthly commitment and discount applies for the balance of the DSL WPP Term Plan commitment period and ends when: (1) the DSL WPP Term Plan is terminated by the customer, (2) the DSL VPP is terminated by the customer, or (3) the DSL WPP Term Plan commitment is satisfied.

ACCESS SERVICE

- 8. Digital Subscriber Line Access Service (Cont'd)
 - 8.5 <u>DSL Access Service Wholesale Pricing Plan</u> (Cont'd)
 - 8.5.2 DSL WPP Term Plan (Cont'd)
 - (E) <u>DSL Volume Pricing Plan</u> (Cont'd)

Each month on the bill date, the Telephone Company will determine if the DSL WPP Term Plan customer achieved its monthly volume commitment level of in-service ADSL and SDSL Access Service lines. In any month in which the monthly volume commitment was not met, the Telephone Company will bill the customer a DSL VPP shortfall charge of \$10.00 per line for each line below its volume commitment level. The following example illustrates the application of the shortfall charge for a DSL WPP Term plan customer that selected a monthly volume commitment level of 2,500 lines. If on the bill date, the customer had achieved only a total of 2,250 in-service lines, the Telephone Company would assess a shortfall charge of \$2,500.00 (250 lines x \$10.00 per line). The shortfall charge would be in addition to the applicable discounted billing for the 2,250 in-service lines.

Upon providing thirty (30) days written notice to the Telephone Company, a customer with an existing DSL VPP will be permitted to increase the existing volume commitment when it establishes a new higher volume commitment level. The DSL VPP discount associated with the higher level of commitment will apply on a prospective basis for the balance of the DSL WPP Term Plan commitment period.

Upon providing thirty (30) days written notice to the Telephone Company, a customer with an existing DSL VPP will be permitted to terminate its existing volume commitment on a prospective basis as described herein. When the customer elects to terminate its existing DSL VPP for any reason, it will be prohibited from establishing a new DSL VPP commitment with the Telephone Company within the ninety (90) days following such termination. During this 90-day period, the customer will not be eligible for any DSL VPP discounts. Downgrades from a higher volume commitment level to a lower volume commitment level are treated as terminations subject to the provisions in this paragraph.

9. <u>Directory Assistance Service</u>

Directory Assistance Service is not available from any of the Issuing Carrier Telephone Companies.

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 <u>Emergency Conditions</u>

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 <u>Service Offerings to the Federal Government</u>

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 (ICB) 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 Hertz. 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 one milliwatt) with respect to frequency shall not exceed:

15 dB at 10 Hz 13 dB at 100 Hz 09 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) Voice Grade Special Access Services (Cont'd)

(1) <u>Voice Grade Secure Communications Type I</u> (Cont'd)

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.

(3) Voice Grade Secure Communications Type III

Approximate bandwidth 10-50,00 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:

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) Voice Grade Secure Communications Type III (Cont'd)

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; and 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) <u>Voice Grade Secure Communications Type IV</u>

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications 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) <u>Wideband Digital Special Access Service</u>

Service arrangements for secured communications to accommodate the transmission of binary digital baseband signals in a random polar format.

(1) Wideband Secure Communications Type I

For transmission at the rate of 18,750 bits per second.

(2) <u>Wideband Secure Communications Type II</u>

For transmission at the rate of 50,000 bits per second.

10. Special Federal Government Access Services (Cont'd)

10.5 <u>Service Offerings to the Federal Government</u> (Cont'd)

10.5.1 Type and Description (Cont'd)

(B) <u>Wideband Digital Special Access Service</u> (Cont'd)

(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.

(C) Government Emergency Telecommunications Service (GETS)

The Government Emergency Telecommunications Service (GETS) provides authorized federal government end users with a national security and emergency preparedness (NS/EP) switched voice and data communications service, utilizing the public switched network, through the activation of a special code(s) in the telephone company end offices and tandem switching offices, as requested by the Federal Government or its authorized agent. Access to GETS is accomplished through the use of the 710 non-geographical numbering plan area (NPA) code utilizing the public switched network, and an interexchange carrier (IC) designated by the Federal Government, or its authorized agent, as a GETS-designated IC. Applicable access charges, under other provisions of this tariff, will apply for the underlying switched access services provided. The jurisdictional nature of GETS features is 100 percent GETS facilities may not be used for non-emergency interstate. government telecommunications. non-GETS services or unauthorized end users.

(1) GETS Alternate Carrier Routing (ACR) Feature

ACR is an advanced intelligent network feature available in suitably equipped offices. The ACR feature provides for the routing of the GETS universal access number to a sequence of GETS ICs. ACR allows NS/EP users to utilize the public switched network to provide enhanced call completion capability on calls made during times of a national emergency or disaster. ACR provides alternate route capability on calls originated from lines served by end offices equipped with the ACR feature to the GETS universal access number.

10. Special Federal Government Access Services (Cont'd)

10.5 <u>Service Offerings to the Federal Government</u> (Cont'd)

10.5.1 Type and Description (Cont'd)

(C) Government Emergency Telecommunications Service (GETS) (Cont'd)

(1) <u>GETS Alternate Carrier Routing (ACR) Feature</u> (Cont'd)

When the presubscribed IC is a participating GETS IC, GETS ACR enables calls first to be routed for completion to the presubscribed IC of the originating line. When the presubscribed IC is not a participating GETS IC, then an office selection table determines the GETS IC. The office selection table contains three alternatives for a GETS IC, and is preselected, on a per end office basis, using data provided by the Federal Government, or its authorized agent.

(2) <u>GETS High Probability of Completion (HPC) Feature</u>

HPC is a set of enhanced features, available in suitably equipped offices, which improves the probability of the completion of GETS traffic, via the public switched telephone network (PSTN), during times of a national emergency, or disaster, when the PSTN is congested due to heavy traffic or damage to the network. The HPC feature sets the call priority value and provides the capability to queue the GETS NS/EP access call against a busy switched access trunk group in a route list until a member of that trunk group becomes idle. As soon as a trunk group member becomes idle, it is offered to the queued GETS NS/EP access call before any other calls are processed. The HPC feature works with switched access trunk groups equipped with SS7 out of band signaling, or equal access multifrequency address signaling.

10.5.2 <u>Mileage Application</u>

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 Section 7.2.5, preceding.

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10. Special Federal Government Access Services (Cont'd)

10.6 Rates and Charges

10.6.1 General

The rates and charges for special offerings to the Federal Government, such as those set forth in Section 10.5, preceding, are developed on an Individual Case Basis (ICB) and are set forth in Section 17.4.5, following.

10.6.2 <u>Voice Grade Special Access</u>

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.

10.6.3 Move Charges

- (A) When a service without a termination charge associated with it, as set forth in Section 17.4.5, 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 the nonrecurring charge applies.
- (B) When service with a termination charge associated with it, as set forth in Section 17.4.5, following, is moved and is reinstalled at a new location, the customer may elect:
 - to pay the unexpired portion of the termination charge for the service, if any, with the application of 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 Description

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 <u>Cable-Only Facilities</u>

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; Metallic, Telegraph Grade and Voice Grade Special Access Services, as set forth, respectively, in Sections 7.4, 7.5, and 7.6, preceding; and Special Federal Government Access Services, as set forth in Section 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 Section 7.6, preceding; and Special Federal Government Access Services, as set forth in Section 10.5, preceding.

11. Special Facilities Routing of Access Services (Cont'd)

11.1 Description (Cont'd)

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 (ICB). Such rates and charges for Special Facilities Routing of Access Services are as set forth in Section 17.4.6, 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 (ICB), and are as set forth in Section 17.4.7, following.

13. Additional Engineering, Additional Labor, and Miscellaneous Services

Section 13.1 addresses Additional Engineering. Section 13.2 addresses Additional Labor (which is comprised of Overtime Installation, Overtime Repair, Standby, Testing and Maintenance with Other Telephone Companies and Other Labor). Section 13.3 addresses Miscellaneous Services (which are comprised of Testing Services, Maintenance of Service, and Telecommunications Service Priority). Section 13.4 addresses Presubscription.

In this section, normally scheduled working hours are an employee's scheduled work period in any given calendar day (e.g., 8:00 a.m. to 5:00 p.m.) for the application of rates based on working hours.

A Miscellaneous Service Order charge, as described in Section 5.4.2, preceding, may be applicable to services ordered from this section.

13.1 Additional Engineering

Additional Engineering, including engineering reviews, as set forth in Section 5.4.3, preceding, will be undertaken only after the Telephone Company has notified the customer that additional engineering charges apply, as set forth in Section 17.4.2, following, and the customer agrees to such charges.

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

- (A) A customer requests additional technical information after the Telephone Company has already provided the technical information normally included on the Design Layout Report (DLR), as set forth in Sections 6.1.5 and 7.1.6, preceding.
- (B) Additional engineering time is incurred by the Telephone Company to engineer a customer's request for a customized service, as set forth in Section 7.1.2, preceding.
- (C) A customer requested Design Change requires the expenditure of Additional Engineering time. Such Additional Engineering time is incurred by the Telephone Company for the engineering review, as set forth in Section 5.4.3, preceding. The charge for Additional Engineering time relating to the engineering review, which is undertaken to determine if a Design Change is indeed required, will apply whether or not the customer authorizes the Telephone Company to proceed with the Design Change. In this case, the Design Change charge, as set forth in Section 17.4.1(C), following, does not apply unless the customer authorizes the Telephone Company to proceed with the Design Change.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.2 Additional Labor

Additional Labor is that labor requested by the customer on a given service and agreed to by the Telephone Company, as set forth in Sections 13.2.1 through 13.2.5, following. The Telephone Company will notify the customer that additional labor charges, as set forth in Section 17.4.3, following, will apply before any additional labor is undertaken. 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. When provisioning or restoring Telecommunications Service Priority services, the Telephone Company will, when possible, notify the customer of the applicability of these Additional Labor charges.

13.2.1 Overtime Installation

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

13.2.2 Overtime Repair

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

13.2.3 Standby

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

13.2.4 Testing and Maintenance with Other Telephone Companies

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

13.2.5 Other Labor

Other labor is that additional labor not included in Sections 13.2.1 through 13.2.4, preceding, and labor incurred to accommodate a specific customer request that involves only labor which is not covered by any other section of this tariff.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services

13.3.1 Testing Services

Testing Services, offered under this section of the tariff, are optional and subject to rates and charges, as set forth in Section 17.4.4, following. A call-out of a Telephone Company employee, at a time not consecutive with the employee's scheduled work period, is subject to a minimum charge of four hours. Other testing services, as described in Sections 6.2.4 and 7.1.7, preceding, are provided by the Telephone Company in association with Access Services and are furnished at no additional charge.

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

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

(A) Switched Access Service

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

Routine tests are those tests performed by the Telephone Company on a regular basis, as set forth in Section 6.2.4, preceding, which are required to maintain Switched Access Service. Additional in-service tests may be done on an automatic basis (i.e., no Telephone Company or customer technicians involved), or on a manual basis (i.e., Telephone Company technician(s) involved at Telephone Company office(s) and Telephone Company or customer technician(s) involved at the customer designated premises).

Testing services are ordered to the Dial Tone Office for FGA, to the access tandem or end office for FGB (wherever the FGB service is ordered) and to the end office for FGC and FGD.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.3 <u>Miscellaneous Services</u> (Cont'd)

13.3.1 <u>Testing Services</u> (Cont'd)

(A) Switched Access Service (Cont'd)

(1) Additional Cooperative Acceptance Testing

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

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

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

The rates for Additional Cooperative Acceptance Testing are as set forth in Section 17.4.4(A), following.

(2) <u>Additional Automatic Testing</u>

Additional Automatic Testing (AAT) of Switched Access Service (FGB, FGC and FGD), is a service where the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent. The customer may order, at additional charges, Gain-Slope and C-Notched Noise Testing and may order the routine tests (1004 Hz loss, C-Message Noise and Balance) on an as needed or more than routine schedule.

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

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.3 <u>Miscellaneous Services</u> (Cont'd)

13.3.1 <u>Testing Services</u> (Cont'd)

(A) Switched Access Service (Cont'd)

(2) Additional Automatic Testing (Cont'd)

The Additional Tests (i.e., Gain-Slope, C-notched Noise, 1004 Hz loss, C-Message Noise and Balance) may be ordered by the customer at additional charges, 60 days prior to the start of the customer prescribed schedule.

The rates for Additional Automatic Tests are as set forth in Section 17.4.4(B), following.

(3) Additional Manual Testing

Additional Manual Testing (AMT) of Switched Access Services (FGA, FGB, FGC and FGD and Directory Access Service not routed through an access tandem), is a service where the Telephone Company provides a technician at its office(s) and the Telephone Company or customer provides a technician at the customer designated premises, with suitable test equipment to perform the required tests. Such additional tests will normally consist of Gain-Slope and C-Notched Noise testing. However, the Telephone Company will conduct any additional tests which the customer may request.

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

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

The rates for Additional Manual Testing are as set forth in Section 17.4.4(C), following.

13. <u>Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)</u>

13.3 <u>Miscellaneous Services</u> (Cont'd)

13.3.1 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(4) Obligations of the Customer

- (a) The customer shall provide the Remote Office Test Line priming data to the Telephone Company, as appropriate, to support routine testing as set forth in Section 6.2.4(B), preceding, or Additional Automatic Testing, as set forth in Section 13.3.1(A)(2), preceding.
- (b) The customer shall make the facilities to be tested available to the Telephone Company at times mutually agreed upon.

(B) Special Access Service

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

(1) Additional Cooperative Acceptance Testing

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

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

The rates for Additional Cooperative Acceptance Testing are as set forth in Section 17.4.4(D), following.

Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd) 13.

13.3 Miscellaneous Services (Cont'd)

13.3.1 <u>Testing Services</u> (Cont'd)

(B) Special Access Service (Cont'd)

(2) Additional Manual Testing

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

The rates for Additional Manual Testing are as set forth in Section 17.4.4(E), following.

(3) Obligation of the Customer

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

13.3.2 Maintenance of Service

- (A) When a customer reports a trouble to the Telephone Company for clearance and no trouble is found in the Telephone Company's facilities, the customer shall be responsible for payment of a Maintenance of Service Charge, as set forth in Section 17.4.4(F), following, for the period of time from when Telephone Company personnel are dispatched, at the request of the customer, to the customer designated premises, to when the work is completed. Failure of Telephone Company personnel to find trouble in Telephone Company facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.
- (B) The customer shall be responsible for payment of a Maintenance of Service Charge when the Telephone Company dispatches personnel to the customer designated premises, and the trouble is in equipment or communications systems provided by other than the Telephone Company or in detariffed CPE provided by the Telephone Company.

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

(x)

(x)

(x)

(x)

ACCESS SERVICE

- 13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)
 - 13.3 <u>Miscellaneous Services</u> (Cont'd)
 - 13.3.3 Telecommunications Service Priority TSP
 - (A) Priority installation and/or restoration of National Security Emergency Preparedness (NSEP) telecommunications services shall be provided in accordance with Part 64.401, Appendix A, of the Federal Communications Commission's Rules and Regulations.

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

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

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

(B) A Telecommunications Service Priority charge applies, as set forth in Section 17.4.4(G), following, when a request to provide or change a Telecommunications Service Priority is received subsequent to the issuance of an Access Order to install the service.

Additionally, a Miscellaneous Service Order Charge, as set forth in Section 17.4.1(D), following, will apply to Telecommunications Service Priority requests that are ordered subsequent to the initial installation of the associated access service.

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

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.3 <u>Miscellaneous Services</u> (Cont'd)

13.3.3 Telecommunications Service Priority – TSP (Cont'd)

(B) (Cont'd)

In addition, Additional Labor rates, as set forth in Section 17.4.3, following, may be applicable when provisioning or restoring Switched or Special Access Services with Telecommunications Service Priority.

When the customer requests an audit, or a reconciliation of the Telephone Company's Telecommunications Service Priority records, a Miscellaneous Service Order Charge, as set forth in Section 17.4.1(D), following, and Additional Labor rates, as set forth in Section 17.4.3, following, are applicable.

13.3.4 Miscellaneous Equipment

(A) <u>Controller Arrangement</u>

This arrangement enables the customer to control up to 48 transfer functions at a Telephone Company central office via a remote keyboard terminal capable of either 300 or 1,200 bps operation. Included, as part of the Controller Arrangement, is a dial-up data station located at the Telephone Company central office to provide access to the Controller Arrangement. This dial-up data station consists of a 212A DATAPHONE data set and an appropriate Telephone Company provided channel.

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

Charges for the Controller Arrangement are set forth in Section 17.4.4(H), following.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.4 Presubscription

- (A) Presubscription is the process by which end user customers may select and designate to the Telephone Company an Interexchange Carrier (IC) to access, without an access code, for interLATA calls. These ICs are referred to as the end user's presubscribed interexchange carriers (PICs).
- Reserved for Future Use (B)
- Reserved for Future Use (C)
- Reserved for Future Use (D)
- (E) Reserved for Future Use
- (F) New end users will be asked to select a PIC, or designate that they do not want to presubscribe to any IC (No-PIC), 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 charge for this initial selection.
 - indicate a PIC or No-PIC for all of its lines;
 - indicate a different PIC or No-PIC for each of its lines.

Only one PIC or No-PIC may be selected for each individual line, or lines terminating in the same hunt group. End users that select No-PIC must arrange this designation by directly notifying the Telephone Company's business office. This choice will require the end user to dial an access code (101XXXX) for all interLATA toll calls. Subsequent to the installation of Telephone Exchange Service and after the end user's initial selection of a PIC or No-PIC, for any change in selection, nonrecurring charges, as set forth in Section 13.4(J), following, apply.

(G) If the new end user fails to make a PIC or No-PIC selection prior to the date of installation of Telephone Exchange Service, the Telephone Company will (1) default the customer's line(s) to No-PIC, which will require the end user to dial an access code (101XXXX) for all interLATA toll calls, or (2) block the end user from interLATA calling if unable to default the customer's line to No-PIC. The end user will be allowed a six month period, from the installation of their service, to select a PIC one time at no charge.

For any change in selection after six months from the installation of Telephone Exchange Service, a nonrecurring charge, as set forth in Section 13.4(J), following, apply.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.4 <u>Presubscription</u> (Cont'd)

- (H) If an IC elects to discontinue its FGD Service offering, the IC will notify the Telephone Company of the cancellation. The IC will also notify all end users which selected them that they are canceling their service and that the end user should contact the Telephone Company to select a new PIC. The IC will also inform the end user that it will pay the PIC Change Charge. The canceling IC will then be billed, by the Telephone Company, the nonrecurring charges set forth in Section 13.4(J), following, for each end user's PIC change, from the canceling IC, for a period of two years from the discontinuance of FGD service.
- (I) If an IC elects to change or discontinue use of a Carrier Identification Code (CIC) for any reasons, other than those set forth in (H), above, the IC will identify to the Telephone Company any affected end users and advise the Telephone Company of the new CIC to be assigned to these end users. If the CIC change involves a change of carrier for any end users, the IC will notify the affected end users of the change. The Telephone Company will change the PIC of each end user, identified by the IC, to the new CIC and bill the IC the nonrecurring charge set forth in Section 13.4(J), following, for each end user line or trunk that is changed.
- (J) As specified above, a nonrecurring charge will apply for subsequent changes to the end user's selection of a PIC, including the establishment or removal of a PIC or No-PIC selection. The non-recurring charge to process a PIC change request is bifurcated into four separate nonrecurring charges and applies as follows:
 - (1) A nonrecurring charge, as set forth in Section 17.4.4(I)(1), following, applies when the PIC change request is submitted to the Telephone Company through manual methods.
 - (2) A nonrecurring charge, as set forth in Section 17.4.4(I)(2), following, applies when the PIC change request is submitted to the Telephone Company through electronic methods.
 - (3) A nonrecurring charge, as set forth in Section 17.4.4(I)(3), following, applies to the PIC change when a request, submitted to the Telephone Company through manual methods, requests a simultaneous change to both the interLATA PIC and intraLATA PIC selections.
 - (4) A nonrecurring charge, as set forth in Section 17.4.4(I)(4), following, applies to the PIC change when a request, submitted to the Telephone Company through electronic methods, requests a simultaneous change to both the interLATA PIC and intraLATA PIC selections.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.4 Presubscription (Cont'd)

(J) (Cont'd)

As used above, manual methods are (i) all personal interaction between an end user, or a person acting on behalf of the end user, and a Telephone Company employee, and (ii) any facsimile or written submissions from an end user, or a person acting on behalf of the end user, to a Telephone Company service center. Electronic methods shall include all other methods. If a PIC change request utilizing an electronic method results in manual processing, the electronic nonrecurring charge shall apply upon completion of the request.

13.5 Reserved for Future Use

13.6 **Unauthorized PIC Change**

For purposes of this section, a subscriber is defined as:

- The party identified in the account records of the Telephone Company as responsible for payment of the telephone bill, or
- Any adult person authorized by such party to change telecommunications services or to charge service to the account, or
- Any person contractually or otherwise lawfully authorized to represent such party.

If an IC requests a PIC change on behalf of a subscriber and the subscriber subsequently denies requesting the change, the Telephone Company will:

- Notify both carriers involved in the unauthorized change allegation made by the subscriber. This notification must include the identity of both carriers.
- Direct the subscriber to the appropriate state regulatory agency or the Federal Communications Commission to file a complaint.
- Inform the subscriber that if he or she has not already paid charges to the unauthorized carrier, he or she is not required to pay for any charges incurred for the first 30 days after the unauthorized change.

13.7 Reserved for Future Use

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.8 <u>Blocking Service</u>

13.8.1 International Blocking Service

The Telephone Company will provide International Blocking Service to customers who obtain local exchange service from the Telephone Company under its general or local exchange tariffs, and to customers who obtain FGA Switched Access service under this tariff. This service is only provided at appropriately equipped Telephone Company end offices. Those offices providing International Blocking Service are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

(x) (x)

On each line or trunk for which International Blocking Service is ordered, the Telephone Company will block all direct dialed international calls that use the call sequence of 011+ or 101XXXX-011+. When capable, the Telephone Company will route the blocked calls to a recorded message.

An International Blocking Service charge, as set forth in Section 17.4.4(K), following, is applicable for each new or existing exchange line or trunk or FGA Switched Access line to which International Blocking Service is added or removed. This charge does not apply when blocking is removed from an exchange line or trunk or FGA Switched Access line at the same time that it is disconnected.

A Miscellaneous Service Order Charge, as set forth in Section 17.4.1(D), following, will apply to orders adding or removing International Blocking Service that are placed subsequent to the initial installation of the associated exchange line(s) or trunk(s) or FGA Switched Access line(s). This charge does not apply when blocking is removed from an exchange line or trunk or FGA Switched Access line at the same time that it is disconnected.

13.8.2 <u>900 Blocking Service</u>

The Telephone Company will provide 900 Blocking Service to customers who obtain local exchange service from the Telephone Company under its general or local exchange tariffs, and to customers who obtain FGA Switched Access service under this tariff. This service is only provided at appropriately equipped end offices. Those offices providing 900 Blocking Service are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

(x) (x)

On each line or trunk, for which 900 Blocking Service is ordered, the Telephone Company will block all direct dialed calls placed to a 900 number. When capable, the Telephone Company will route the blocked calls to a recorded message.

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.8 <u>Blocking Service</u> (Cont'd)

13.8.2 900 Blocking Service (Cont'd)

A Blocking Service charge, as set forth in Section 17.4.4(K), following, is applicable when ordered by the end user customer, with the following exception:

- Blocking access to 900 Service is offered to all new subscribers, at no charge, at the time telephone service is established at a new number and for 60 days thereafter.

The Blocking Service charge is applied for each line, trunk, or FGA Switched Access service, to which 900 Blocking Service is added or removed. Requests by subscribers to remove 900 Blocking Service must be in writing. This charge does not apply when blocking is removed from an exchange line or trunk or FGA Switched Access line at the same time that it is disconnected.

13.9 Billing Name and Address Service

13.9.1 General Description

- (A) Billing Name and Address (BNA) Service is the provision, by the Telephone Company, to an interstate service provider, who is a customer of the Telephone Company, of the complete billing name, street address, city or town, state and zip code for a telephone number, or calling card account number, assigned by the Telephone Company. An interstate service provider is defined as an interexchange carrier, an operator service provider, an enhanced service provider, or any other provider of interstate telecommunications services.
- (B) BNA Service is provided only for the purposes of allowing customers to bill their end users for telephone services provided by the customer, order entry and customer service information, fraud prevention identification of end users who have moved to a new address, any purpose associated with equal access requirement, and information associated with Local Exchange Carrier (LEC) calling card calls, collect and third party calls.

BNA information may not be resold or used for any other purpose including, but not limited to, marketing or merchandising activities.

(C) BNA information associated with listed/published telephone numbers will be provided. Requests for BNA information associated with nonpublished and unlisted telephone numbers will be provided, unless the subscriber to a nonpublished or unlisted telephone number has affirmatively requested that its BNA not be disclosed.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.9 <u>Billing Name and Address Service</u> (Cont'd)

13.9.2 Undertaking of the Telephone Company

- (A) A standard format for the receipt of BNA requests and the provision of BNA information will be established by the Telephone Company.
- (B) Standard response to BNA requests will be by First Class Mail. Standard format will be on paper. Optional Magnetic Tape formatting will be offered, where available.
- (C) Where facilities are available, the customer may request an optional specialized output format required to meet a specific customer need.
- (D) The Telephone Company will make every effort to provide accurate and complete BNA data. The Telephone Company makes no warranties, expressed or implied, as to the accuracy or completeness of this information.
- (E) The Telephone Company will not disclose BNA information to parties other than interstate service providers and their authorized billing agents, as defined in Section 13.9.1(A), preceding. BNA disclosure is limited to those purposes, as defined in Section 13.9.1(B) preceding.
- (F) The Telephone Company reserves the right to request from an interstate service provider who has placed an order for BNA service, the source data upon which the interexchange carrier has based the order. This request is made to ensure that the BNA information is to be used only for purposes as described in Section 13.9.1(B), preceding. The Telephone Company will not process the order until such time as the interstate service provider supplies the requested data.

13.9.3 Obligations of the Customer

- (A) The customer shall order BNA Service on a separate BNA Order. The order must identify both the customer's authorized representative and the address to which the information is to be sent.
- (B) The customer shall treat all BNA information as confidential. The customer shall insure that BNA information is used only for the purposes, as described in Section 13.9.1(B), preceding.

13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.9 <u>Billing Name and Address Service</u> (Cont'd)

13.9.3 Obligations of the Customer (Cont'd)

- (C) The customer shall not publicize or represent to others that the Telephone Company jointly participates with the customer in the development of the customer's end user records it assembles through the use of BNA Service.
- (D) Upon request, the customer will provide to the Telephone Company, the source data upon which the customer has based an order for BNA service. The Telephone Company will not process the order until such time as the customer provides the requested data.

13.9.4 Rate Regulations

- (A) For each order for BNA information received by the Telephone Company, a BNA Order Charge applies. In addition, a charge applies for each customer specific record provided. The BNA Order Charge and the Per Record Charge are specified in Section 17.4.4(L), following.
- (B) Where available, the customer may order the response formatted on Magnetic Tape. The Optional Magnetic Tape Charge is specified in Section 17.4.4(L), following, and is in addition to the BNA Order Charge and the BNA Record Charge.
- (C) Where available, the customer may order an output format, other than a standard paper format, in order to meet a customer's specific requirement. This option is subject to an hourly programming charge, as specified in Section 17.4.4(L), following, and is in addition to the BNA Order Charge and the BNA Record Charge.

13.10 Originating Line Screening (OLS) Service

The Telephone Company will provide OLS Service to aggregators and other customers who obtain local exchange service from the Telephone Company under its general and/or local exchange tariff. OLS service enables customers to determine whether there are billing restrictions on exchange service lines from which a call originates. OLS service delivers codes, on operator assisted calls, made from aggregator locations, to identify calls originating from privately owned payphones, inmate locations, and hotels/motels, etc.

(x)

(x)

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.10 Originating Line Screening (OLS) Service (Cont'd)

OLS Service is provided at no charge when ordered with the installation of new local exchange service. However, when an OLS code is added to an existing exchange service line, a charge is applied, as set forth in Section 17.4.4(M), following. This charge is applied for each exchange service line to which an OLS code is assigned. The customer must specify the number of exchange service lines and each individual telephone number equipped.

A Miscellaneous Service Order Charge, as set forth in Section 17.4.1(D), following, will apply to orders adding OLS codes that are placed subsequent to the initial installation of the associated exchange service line. This charge does not apply when OLS codes are removed from an exchange service line at the same time that the exchange service line is disconnected.

OLS codes may be delivered using Line Information Database (LIDB) or Flexible Automatic Number Identification (Flex ANI) technology. Those telephone companies delivering OLS codes using LIDB are identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No.4, as are those companies delivering OLS codes using Flex ANI.

13.11 <u>Non-chargeable Confirmation Services</u>

13.11.1 Billed Number Screening (BNS)

At the request of the customer, the Telephone Company business office will confirm BNS codes associated with a line to which a call is to be billed.

13.11.2 Originating Line Screening (OLS)

At the request of the customer, the Telephone Company business office will confirm OLS codes associated with an exchange service line from which a call originates.

13.12 <u>Coin Supervision Additive Service</u>

The Telephone Company will provide Coin Supervision Additive Service to Payphone Service Providers (PSPs) who order local exchange service lines, for the provision of pay telephone service, and where the pay telephone equipment connected to the local exchange service lines, requires central office coin supervision capability. The local exchange service lines, used for the provision of pay telephone service, are obtained from and subject to the terms and conditions under the Telephone Company's general and/or local tariffs.

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.12 <u>Coin Supervision Additive Service</u> (Cont'd)

Coin Supervision Additive Service provides the capability of central office line equipment to pass signals and/or tones from a local exchange service line to a trunk terminating at the PSP's operator service provider. These signals enable an operator service provider to recognize coin deposits and return coins to the pay telephone user. Coin Supervision Additive Service also permits a suitably equipped operator service provider to automatically ring back the originating local exchange service line upon completion of a call.

A Coin Supervision Additive Service charge, as set forth in Section 17.4.4(N), following, is assessed monthly to the PSP for each local exchange service line for which Coin Supervision Additive Service is provided.

13.13 Reserved for Future Use

13.14 Reserved for Future Use

13.15 Access Recovery Charge

The Access Recovery Charge (ARC) recovers a portion of the Telephone Company's Eligible Recovery, as defined in the Federal Communications Commission's Report and Order and Further Notice of Proposed Rulemaking in CC Docket Nos. 96-45 and 01-92; GN Docket No. 09-51; WC Docket Nos. 03-109, 05-337, 07-135 and 10-90; and WT Docket No. 10-208 (76 FR 78384, 76 FR 76623).

13.15.1 Rate Regulations

Except as specified below, the Telephone Company will bill an ARC each month as follows:

- (A) For each line or trunk assessed a Residence End User Common Line (EUCL), as specified in Section 4.6.7(A), preceding, one (1) Residential ARC charge, as set forth in Section 17.6.3, following, will apply.
- (B) For each line or trunk assessed a Single Line Business EUCL, as specified in Section 4.6.4(A), preceding, one (1) Single Line Business ARC charge, as set forth in Section 17.6.2, following, will apply.
- (C) For each line or trunk assessed a Multiline Business (MLB) EUCL, as specified in Section 4.6.4(B), preceding, one (1) Multiline Business ARC charge, as set forth in Section 17.6.1, following, will apply.

(x)

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.15 Access Recovery Charge (Cont'd)

13.15.1 Rate Regulations (Cont'd)

The Telephone Company's Residential (RES ARC), Single Line Business ARC (SLB ARC), and Multiline Business ARC (MLB ARC) rates are set forth in Sections 17.6, following.

The minimum period for which an ARC is applicable to an end user is the same as that in the general and/or local exchange tariffs for the associated local exchange service line or trunk.

When an end user temporarily suspends its local exchange service that is associated with an ARC, one-half of the monthly ARC charge will be temporarily suspended, for the time period the associated local exchange service is suspended.

13.15.2 Exceptions

(A) <u>Lifeline Customers</u>

Pursuant to Part 51.917(e)(6)(v) of the FCC's rules, the Residential ARC charge, as set forth in Section 17.6.3, following, will not apply on lines of Lifeline Customers.

(B) Integrated Services Digital Network (ISDN) Services

(1) ISDN Basic Rate Interface (BRI)

When an end user is provided local exchange service under any general and/or local exchange service tariff(s) using an Integrated Services Digital Network (ISDN) Basic Rate Interface (BRI) arrangement, one (1) Residential ARC or one (1) Single Line Business ARC charge, as set forth in Sections 17.6.3 or 17.6.2, following, applies to each ISDN BRI arrangement.

(2) ISDN Primary Rate Interface (PRI)

When an end user is provided local exchange service under any general and/or local exchange service tariff(s) using an Integrated Services Digital Network (ISDN) Primary Rate Interface (PRI) arrangement, five (5) Multiline Business ARC charges, as set forth in Section 17.6.1, following, apply to each ISDN PRI arrangement.

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13. Additional Engineering, Additional Labor, and Miscellaneous Services (Cont'd)

13.15 Access Recovery Charge (Cont'd)

13.15.2 Exceptions (Cont'd)

(C) <u>DS1 Channel Service</u>

When an end user is provided local exchange service under any general and/or local exchange tariff(s) using a DS1 (1.544 Mbps) channel service, where the customer provides the terminating channelization equipment, five (5) Multiline Business ARC charges, as set forth in Section 17.6.1, following, apply to each DS1 channel service.

(D) Remote Call Forwarding

For each local exchange service provided as Remote Call Forwarding (RCF) residential or business service, under the general and/or local exchange service tariffs, the monthly ARC charge does not apply.

14. Exceptions to Access Service Offerings

The services offered under the provisions of this tariff are subject to availability, as set forth in Section 2.1.4, preceding. In addition, the following exceptions apply:

- Reserved for future use.

15. Access Service Interfaces and Transmission Specifications

Section 15.1 contains Switched Access Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level, and Local Transport Termination) and Transmission Specifications. Section 15.2 describes Special Access Service Network Channel (NC) codes and Network Channel Interface (NCI) codes.

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 Section 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 to four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Telephone Company equipment be placed at the customer 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 Local Transport Interface Groups

Interface Groups are combinations of technical parameters which describe the Telephone Company handoff at the point of termination at the customer designated premises. The technical specifications concerning the available interface groups are set forth in (A) through (D), following.

Interface Group 1 is provided with Type C Transmission Specifications, as set forth in Section 15.1.2(G), following, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, as set forth respectively in Section 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) <u>Interface Group 1</u>

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's 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) <u>Interface Group 2</u>

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's 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.

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.1 Local Transport Interface Groups (Cont'd)

Interface Group 2 (Cont'd) (B)

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.

(C) Interface Groups 3 through 5

Interface Groups 3 through 5 provide analog transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the frequencies illustrated following, with the capability to channelize voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Groups are reserved for Telephone Company use, (e.g., pilot and carrier group alarm tones). Before the first point of switching, the Telephone Company will provide multiplex equipment to derive the transmission paths of frequency bandwidth of approximately 300 to 3000 Hz.

The interfaces are provided with individual transmission path SF supervisory signaling.

Interface Group <u>No.</u>	Transmission Frequency Bandwidth	Analog Hierarchy Level	Maximum No. of Channelized Voice Freq. Trans. Paths
3	60 - 108 kHz	Group	12
4	312 - 552 kHz	Supergroup	60
5	564 - 3,084 kHz	Mastergroup	600

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.1 Local Transport Interface Groups (Cont'd)

(D) Interface Groups 6 through 10

Interface Groups 6 through 10 provide digital transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the nominal bit rates illustrated following, with the capability to channelize voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive transmission paths of a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide a DS1 signal(s) in D3/D4 format.

The interfaces are provided with individual transmission path bit stream supervisory signaling.

Interface	Nominal	Digital	Maximum No. of
Group	Bit Rate	Hierarchy	Channelized Voice
<u>No.</u>	(Mbps)	Level	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	4,032

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.1 Local Transport Interface Groups (Cont'd)

(E) Local Transport Optional Features

Where transmission facilities permit, the Telephone Company will, at the option of the customer, provide the following features in association with Local Transport. An Access Order Charge as specified in Section 17.4.1(A), 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 Clear Channel Capability to an existing service).

When the Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of new service and all associated nonrecurring charges will apply.

- <u>Customer Specified Entry Switch Receive Level</u>

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 GR-334-CORE. This feature is available with Interface Groups 2 through 10 for FGA and FGB.

Customer Specification of Local Transport Termination

Customer Specification of Local Transport Termination allows the customer to specify, for FGB 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 FGB arrangement is provided with Type B Transmission Specifications.

- Supervisory Signaling

Supervisory Signaling allows the customer to order an optional supervisory signaling arrangement for each transmission path provided where the transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability.

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- 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) Local Transport Optional Features (Cont'd)
 - Clear Channel Capability

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 F.C.C. No. 4. Clear Channel Capability, as described in Technical Reference GR-334-CORE, is available with Interface Groups 6 and 9 for FGC and FGD with Signaling System 7 (SS7) signaling.

(x)

(x)

(x)

The Interface Groups 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.

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.1 Local Transport Interface Groups (Cont'd)

(E) Local Transport Optional Features (Cont'd)

- For Interface Groups 6 through 10

These Interface Groups may, at the option of the customer, be provided with individual transmission path SF supervisory signaling where such signaling is available in Telephone Company central offices. Generally, such signaling is available only where the first point of switching provides an analog (i.e., non digital) interface to the transport termination.

These optional Supervisory Signaling arrangements are not available in combination with the SS7 optional feature as described in Section 6.8.2(C)(2), preceding.

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) Available Premises Interface Codes

Following is a matrix showing premises interface codes which are available for each Interface Group. Their availability is a function of the Telephone Company switch supervisory signaling and Feature Group. For explanations of these codes, see the Parameter Codes and Options as set forth in Section 15.2.2(A), following.

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15. <u>Access Service Interfaces and Transmission Specifications</u> (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 Group	Telephone Co. Switch Supervisory Signaling	Premises Interface Code		ature B		•
1	LO LO GO GO LO, GO LO, GO LO, GO LO, GO LO, GO RV, EA, EB, EC	2LS2 2LS3 2GS2 2GS3 2DX3 4EA3-E 4EA3-M 6EB3-E 6EB3-M 2DX3 4EA3-E 4EA3-M 6EB3-E 6EB3-M 6EC3 2RV3-O 2RV3-T 2NO2	X X X X X X X X X	X X X X X X	X X X X X X X X X X X	X X X X X X X X X X X
2	LO, GO LO, GO LO LO LO LO GO GO GO LO, GO	4SF2 4SF3 4LS2 4LS3 6LS2 4GS2 4GS3 6GS2 4DX2 4DX3 6EA2-E 6EA2-M 8EB2-E 8EB2-M 6EX2-B	X X X X X X X X X X X X X X X X X X X			

15. <u>Access Service Interfaces and Transmission Specifications</u> (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)

	Telephone		
	Co. Switch	Premises	
Interface	Supervisory	Interface	Feature Group
Group	Signaling	<u>Code</u>	A B C D
2 (Cont'd)	RV, EA, EB, EC	4SF2	X X X
	RV, EA, EB, EC	4SF3	X
	RV, EA, EB, EC	4DX2	X X X
	RV, EA, EB, EC	4DX3	X
	RV, EA, EB, EC	6DX2	X
	RV, EA, EB, EC	6EA2-E	X X X
	RV, EA, EB, EC	6EA2-M	X X X
	RV, EA, EB, EC	8EB2-E	X X X
	RV, EA, EB, EC	8EB2-M	X X X
	EA, EB, EC	8EC2-M	X X
	RV	4RV2-O	X X X
	RV	4RV2-T	X X X
	RV	4RV3-O	X X X
	RV	4RV3-T	X X X
	SS7	4NO2	X X
3	LO, GO	4AH5-B	X
	RV, EA, EB, EC	4AH5-B	X X X
	SS7	4AH5-B	X X
4	LO, GO	4AH6-C	X
	RV, EA, EB, EC	4AH6-C	X X X
	SS7	4AH6-C	X X
5	LO, GO	4AH6-D	X
	RV, EA, EB, EC	4AH6-D	X X X
	SS7	4AH6-D	X X

15. <u>Access Service Interfaces and Transmission Specifications</u> (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 Group	Telephone Co. Switch Supervisory Signaling	Premises Interface Code	Feature Group A B C D
6	LO, GO	4DS9-15	X
	LO, GO	4DS9-15L	X
	RV, EA, EB, EC	4DS9-15	X X X X
	RV, EA, EB, EC	4DS9-15L	X X X
	SS7	4DS9-15	X X X
7	LO, GO	4DS9-31	X
	LO, GO	4DS9-31L	X
	RV, EA, EB, EC	4DS9-31	X X X X
	RV, EA, EB, EC	4DS9-31L	X X X
	SS7	4DS9-31	X X X
8	LO, GO	4DS0-63	X
	LO, GO	4DS0-63L	X
	RV, EA, EB, EC	4DS0-63	X X X X
	RV, EA, EB, EC	4DS0-63L	X X X
	SS7	4DS0-63	X X
9	LO, GO	4DS6-44	X
	LO, GO	4DS6-44L	X
	RV, EA, EB, EC	4DS6-44	X X X X
	RV, EA, EB, EC	4DS6-44L	X X X
	SS7	4DS6-44	X X X
10	LO, GO	4DS6-27	X
	LO, GO	4DS6-27L	X
	RV, EA, EB, EC	4DS6-27	X X X X
	RV, EA, EB, EC	4DS6-27L	X X X
	SS7	4DS6-27	X X X

15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.2 Standard Transmission Specifications

Descriptions of the transmission specifications available with each Feature Group as a function of the Interface Group selected by the customer, are set forth in (A) through (D), following. Descriptions of each of these Standard Transmission Specifications and the two Data Transmission Parameters mentioned are set forth respectively in (E) through (G) and Section 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) <u>Feature Group B</u>

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) <u>Feature Group C</u>

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 Standard Transmission Specifications (Cont'd)

(C) <u>Feature Group C</u> (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) <u>Feature Group D</u>

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.

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)

(E) Type A Transmission Specifications

Type A Transmission Specifications is 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 ± 2.0 dB.

(2) <u>Attenuation Distortion</u>

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 dBrnCO.

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)

(E) <u>Type A Transmission Specifications</u> (Cont'd)

(5) <u>Echo Control</u>

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 <u>Return Loss</u>	Singing Return Loss
POT to Access Tandem POT to End Office	21 dB	14 dB
- Direct	N/A	N/A
 Via Access Tandem 	16 dB	11 dB

(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss	Singing Return Loss		
5 dB	2.5 dB		

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)

(F) Type B Transmission Specifications

Type B 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 ± 2.5 dB.

(2) <u>Attenuation Distortion</u>

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	45 dBrnCO	

(4) <u>C-Notch Noise</u>

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

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^{*} For FGC and FGD, only Type B2 will be provided. For FGA and FGB, 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 <u>Switched Access Service</u> (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications (Cont'd)

(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	Singing
	Return Loss	Return Loss
POT to Access Tandem		
- Terminated in 4-Wire Trun	ık 21 dB	14 dB
- Terminated in 2-Wire Trun	k 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 	16 dB	11 dB
(Effective 4-wire tran	IS-	
mission path at end of	office)	
 For FGC access 	13 dB	6 dB
(Effective 2-wire tran	IS-	
mission path at end of		

(6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Signing 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

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)

(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 +3.0 dB.

(2) <u>Attenuation Distortion</u>

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +5.5 dB.

(3) <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 C1	Type C2	
	22 17 60	20 15 60	
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	

(4) <u>C-Notch Noise</u>

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

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(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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^{*} For FGC and FGD only, Type C2 will be provided. For FGA and FGB, 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)

15.1.2 <u>Standard Transmission Specifications</u> (Cont'd)

(G) Type C Transmission Specifications (Cont'd)

(5) <u>Echo Control</u>

Echo Control, identified as Return Loss 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. 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 (or FGB only)	13 dB 8 dB	6 dB 4 dB

15.1.3 <u>Data Transmission Parameters</u>

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 FGA, FGB and FGC and also with FGD when FGD is directly routed to the end office. Type DA is only provided with FGD 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.

15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.3 <u>Data Transmission Parameters</u> (Cont'd)

(A) <u>Data Transmission Parameters Type DA</u> (Cont'd)

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

- less than 50 route miles 500 microseconds

- equal to or greater than

50 route miles 900 microseconds

1004 to 2404 Hz

- less than 50 route miles 200 microseconds

equal to or greater than

50 route miles 400 microseconds

(3) Impulse Noise Counts

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

(4) Intermodulation Distortion

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

Second Order (R2) 33 dB Third Order (R3) 37 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5° peak-to-peak.

(6) <u>Frequency Shift</u>

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

15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.1.3 <u>Data Transmission Parameters</u> (Cont'd)

(B) <u>Date Transmission Parameters Type DB</u>

(1) <u>Signal to C-Notched Noise Ratio</u>

The signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

(2) <u>Envelope Delay Distortion</u>

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles
 equal to or greater than
 50 route miles
 1000 microseconds

1004 to 2404 Hz

less than 50 route miles
 equal to or greater than
 50 route miles
 500 microseconds

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dBrnCO threshold in 15 minutes is no more than 15 counts.

(4) <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

- 15. Access Service Interfaces and Transmission Specifications (Cont'd)
 - 15.1 <u>Switched Access Service</u> (Cont'd)
 - 15.1.3 <u>Data Transmission Parameters</u> (Cont'd)
 - (B) <u>Date Transmission Parameters Type DB</u> (Cont'd)
 - (5) <u>Phase Jitter</u>

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

(6) Frequency Shift

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

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 Switched Access Service and Special Access Service offerings contained in Sections 6 and 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 2 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 Section 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 Telcordia Technologies Inc.'s NC/NCI Decoder. However, not all services contained in that technical publication may be offered by the Telephone Company at this time.

Lastly, Section 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.

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 <u>Special Access Service</u> (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 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 <u>Special Access Service</u> (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> 1C-- 04LO2 04LS2

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 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 and SECNCI Codes:

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 Telcordia Technologies Inc.'s (x) NC/NCI Decoder. (x)

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15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 <u>Special Access Service</u> (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 (H) 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 Section 15.2.2, following, and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

(A) <u>Technical Specifications Packages - Metallic Service</u>

			Pack	cage	
	SD Code	MTC*	<u>MT1</u>	MT2	<u>MT3</u>
	NC Code	MQ	NT	<u>NU</u>	NV
<u>Parameter</u>					
DC Resistance					
Between Conducto	ors	X	X	X	
Loop Resistance					X
Shunt Capacitance		X			X
Optional Features and Functions					
Three Premises Bridgi	ng	X	X		X
Series Bridging	6	X	_	X	.=
2 2					

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

(x)

(x)

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^{*} All parameters are available within ranges selected by the customer where technically feasible.

Package

TG2

TGC* TG1

ACCESS SERVICE

- 15. Access Service Interfaces and Transmission Specifications (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.1 Network Channel (NC) Codes (Cont'd)
 - (B) <u>Technical Specifications Packages Telegraph Grade Service</u>

	NC Code	NQ	<u>NW</u>	<u>NY</u>	
<u>Parameter</u>					
Telegraph Distortion		X	X	X	
Optional Features and Functions					
Telegraph Bridging		X	X	X	
The technical specifications TR-NPL-000336.	are described	in Tec	hnical	Reference	(x) (x)

SD Code

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^{*} All parameters are available within ranges selected by the customer where technically feasible.

(x)

(x)

(x)

(x)

ACCESS SERVICE

- 15. Access Service Interfaces and Transmission Specifications (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.1 Network Channel (NC) Codes (Cont'd)
 - (C) <u>Technical Specifications Packages Voice Grade Service</u>

		Package VG-												
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> <u>LD</u>	<u>4</u> <u>LE</u>	<u>5</u> <u>LF</u>	<u>6</u> <u>LG</u>	<u>7</u> <u>LH</u>	<u>8</u> <u>LJ</u>	<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>
<u>Parameter</u>														
Attenuation Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Echo Control	X	X	X	X		X		X	X			X	X	X
Envelope Delay Distortion	X						X	X	X	X	X	X	X	X
Frequency Shift	X						X	X	X	X	X	X	X	X
Impulse Noise	X					X	X	X	X	X	X	X	X	X
Intermodulation Distortion	X						X	X	X	X	X	X		X
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain Hits,														
and Dropouts	X													
Phase Jitter	X						X	X	X	X	X	X		X
Signal-to-C-Message Noise					X									
Signal-to-C-Notch Noise	X				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-NWT-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004 (MDP-326-584), Table 4.

- * The desired parameters are selected by the customer from the list of available parameters.
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- 15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.1 Network Channel (NC) Codes (Cont'd)
 - (C) <u>Technical Specifications Packages Voice Grade Service</u> (Cont'd)

						P	ackag	ge VG	r-					
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> <u>LD</u>	<u>4</u> <u>LE</u>	<u>5</u> <u>LF</u>	<u>6</u> LG	<u>7</u> <u>LH</u>	<u>8</u> <u>LJ</u>	<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 Central Office Multiplexing	X X		X			X	X X				X	X	X	
Conditioning:														
C-TypeImproved Attenuation	X					X	X	X	X	X	X			
Distortion - Improved Envelope	X					X	X	X	X	X	X			
Delay Distortion	X					X	X	X	X	X	X			
Sealing CurrentData CapabilityTelephoto Capability	X X X						X	X X			X	X		
Customer Specified Premises Receive Level Improved Return Loss - for Effective 4-Wire	X		X	X				X	X	X				
Transmission - for Effective 2-Wire	X	X	X	X	X	X	X	X	X	X	X	X	X	
Transmission Improved Two-Wire Voice Transmission	X		X	X				X						X
PPSN Interface Arrangement	X									X				
Selective Signaling Arrangement	X		X			X	X				X	X	X	
Signaling Capability Transfer Arrangement	X X	X X	X X	X X	X	X	X	X X	X X	X X	X	X	X	

Access Service Interfaces and Transmission Specifications (Cont'd) 15.

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(D) <u>Technical Specifications Packages - Program Audio Service</u>

			Package	;	
SD Code NC Code	APC*	AP1 PE	AP2 PF	AP3 PJ	AP4
NC Code	<u>PQ</u>	<u>FE</u>	<u>FF</u>	<u>FJ</u>	<u>PK</u>
<u>Parameter</u>					
Actual Measured Loss	X	X	X	X	X
Amplitude Tracking Crosstalk	X X	X	X	X	X
Distortion Tracking	X	Λ	Λ	Λ	Λ
Gain/Frequency Distortion	X	X	X	X	X
Group Delay Noise	X X	X	X	X	X
Phrase Tracking	X	21	21	21	71
Short-Term Gain Stability	X				
Short-Term Loss Total Distortion	X X	X	X	X	X
Optional Features and Functions					
Central Office Bridging					
Capability	X	X	X	X	X
Gain Conditioning Stereo	X X	X	X	X	X X

The technical specifications are described in Technical Reference (x) (x)

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GR-337-CORE and associated Addendum.

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

15.2.1 Network Channel (NC) Codes (Cont'd)

(E) <u>Technical Specifications Packages - Video Service</u>

	SD Code	TVC*	Package TV1	TV2
	NC Code	TQ	$\frac{1 \text{ V I}}{\text{TV}}$	$\frac{1 \text{ V} Z}{\text{TW}}$
Parameters	TVC Code	<u>1Q</u>	<u>1 V</u>	1 11
T M MILLER TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TOT				
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 I	nequality	X	X	X
Chrominance-Luminance Delay	Inequality	X	X	X
Amplitude/Frequency Character	istic	X	X	X
Luminance Non-Linear Distortion	on	X	X	X
Chrominance Non-Linear Gain I	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 Interm	nodulation	X	X	X
Audio Channel Parameters				
Associated with Video Servi	<u>ice</u>			
Insertion Gain		X	X	X
Amplitude/Frequency Character	istic	X	X	X
Total Harmonic Distortion & No		X	X	X
Maximum Steady-State Test Lev	vels	X	X	X
Gain Differential Between Chan		X	X	
Phase Differential Between Char	nnels	X	X	
Crosstalk		X	X	X
Audio-To-Video Time Different	ial	X	X	X

The technical specifications are described in Technical Reference (x) GR-338-CORE. (x)

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^{*} 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)
 - Technical Specifications Packages Digital Data Service (F)

		Package								
~-	Code Code	<u>DA1</u> <u>XA</u>	<u>DA2</u> <u>XB</u>	DA3 XG	<u>DA4</u> <u>XH</u>	<u>DA5</u> <u>XE</u>	<u>DA6</u> <u>YN</u>			
Parameter/Hubbed										
Error-Free Seconds		X	X	X	X	X	X			
Optional Features and Functions/H	<u>[ubbed</u>									
Central Office Bridging Capabi	llity	X	X	X	X	X	X			
PPSN Interface Tran Arrangement	ısfer	X	X	X	X	X	X			
Transfer Arrangeme	nt	X	X	X	X	X	X			

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310 (MDP-326-726).

Optional Features

and Functions/Non-Hubbed

Public Packet Data Arrangement

X

X

(x)

(x)

(x)

Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-000341.

(x)

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(x)

(x)

ACCESS SERVICE

- 15. Access Service Interfaces and Transmission Specifications (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.1 Network Channel (NC) Codes (Cont'd)
 - (G) <u>Technical Specifications Packages High Capacity Service</u>

				Pack	cage		
	SD Code NC Code	<u>DS0</u> <u>HS</u>	<u>DS1</u> <u>HC</u>	DS1C HD	DS2 HE	DS3 HF	DS4 HG
<u>Parai</u>	meters						
Erro	-Free Seconds		X				
_	onal Features and Functions						
Auto	matic Loop Tran	sfer	X				
- I - I - I - I - I - I	ral Office Multip DS4 to DS1 DS3 to DS1 DS2 to DS1 DS1C to DS1 DS1 to Voice DS1 to DS0 DS0 to Subrate* sfer Arrangemen r Channel Capab	X X X	X	X	X	X	

A channel with technical specifications package DS1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference GR-342-CORE.

- * Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

Package

OC12

(x)

OD

OC3

OB

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.2.1 Network Channel (NC) Codes (Cont'd)

<u>Parameters</u>

(H) <u>Technical Specifications Packages Synchronous Optical Channel Service</u>

SD Code

NC Code

			
Error-Free Seconds	X	X	
Optional Features and Functions			
Customer Premises			
Multiplexing:			
OC12 to OC3		X	
OC12 to OC3c		X	
OC12 to DS3		X	
OC12 to DS1		X	
OC3 to STS-1	X		
OC3 to DS3	X		
OC3 to DS1	X		
Central Office			
Multiplexing:			
OC12 to OC3		X	
OC12 to OC3c		X	
OC3 to DS3	X		
OC3 to DS1	X		
Technical specifications are delineated in	1		
Technical Reference GR-253-CORE, GR	R-1374-CORE	Ξ,	(x)

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

ATIS-0900102.1993 (R2010) and ATIS-0900105.2008.

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 <u>Special Access Service</u> (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 Section 15.2, preceding.

(A) <u>Parameter Codes and Options</u>

Code	<u>e</u> <u>(</u>	<u>Option</u>	<u>Definition</u>
AB	-		accepts 20 Hz ringing signal at customer's point of termination
AC	-		accepts 20 Hz ringing signal at customer's end user's point of termination
AH	_		analog high capacity interface
		В	60 kHz to 108 kHz (12 channels)
	- (С	312 kHz to 552 kHz (60 channels)
	_]	D	564 kHz to 3084 kHz (600 channels)
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)
CT			Centrex Tie Trunk Termination
DA	-		data stream in VF frequency band at customer's end user's point of termination
DB	-		data stream in VF frequency band at customer's point of termination
	_	10	VF for TG1 and TG2
	_ 4	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	2	Telephone Company energized alarm channel
		3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) <u>Parameter Codes and Options</u> (Cont'd)

Code	Option	<u>Definition</u>
DD -		DATAPHONE Select-A-Station (and TABS) interface
		at customer's point of termination
DE -		DATAPHONE Select-A-Station (and TABS) interface
		at customer's end user's point of termination
DS -		digital hierarchy interface
-	15	1.544 Mbps (DS1) format per GR-342-CORE 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 DS1 of the signal
-	15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
-	15J	1.544 Mbps format per GR-342-CORE
-	15K	1.544 Mbps format per GR-342-CORE plus extended
	1.51	framing format
-	15L	1.544 Mpbs (DS1) with SF signaling
-	27	274.176 Mpbs (DS4)
-	27L	274.176 Mpbs (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)
DII -	63L	6.312 Mbps (DS2) with SF signaling
DU -	19	digital access interface
_	24	19.2 kbps 2.4 kbps
_	48	4.8 kbps
_	56	56.0 kbps
_	64	64.0 kbps
	96	9.6 kbps
_	A	1.544 Mbps format per GR-342-CORE
_	В	1.544 Mbps format per GR-342-CORE plus D4
_	C	1.544 Mbps format per GR-342-CORE plus extended
	C	framing format

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) <u>Parameter Codes and Options</u> (Cont'd)

DU - 1KN	Code	Option	<u>Definition</u>
- 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 available to U.S. Govt. agencies) - BN 1.544 Mbps Superframe (SF) Format without line power - DN 1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power DX - duplex signaling interface at customer's point of termination DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	DU -	1KN	
- AN 1.544 Mbps free framing format without line power (only available to U.S. Govt. agencies) - BN 1.544 Mbps Superframe (SF) Format without line power - DN 1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power DX - duplex signaling interface at customer's point of termination DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	-	1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line
 BN 1.544 Mbps Superframe (SF) Format without line power 1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power duplex signaling interface at customer's point of termination DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface B OC3, OC3c 	-	AN	1.544 Mbps free framing format without line power
- DN 1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power DX - duplex signaling interface at customer's point of termination DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	-	BN	
DX - duplex signaling interface at customer's point of termination DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	-	DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear
DY - duplex signaling interface at customer's end user's point of termination EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	DX -		duplex signaling interface at customer's point of
EA - E Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface OC3, OC3c	DY -		duplex signaling interface at customer's end user's point
 EA - M Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c 	EA -	E	Type I E&M Lead Signaling. Customer at POT or
EB - E Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead. EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	EA -	M	Type I E&M Lead Signaling. Customer at POT or
EB - M Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead. EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	EB -	E	Type II E&M Lead Signaling. Customer at POT or
EC - Type III E&M Signaling at customer POT EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	EB -	M	Type II E&M Lead Signaling. Customer at POT or
EX - A tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	EC		
start and customer supplies open end (dial tone, etc.) functions EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c		Δ	
EX - B tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions FC - Fiber Optic Interface - B OC3, OC3c	L2X	71	start and customer supplies open end (dial tone, etc.)
FC - Fiber Optic Interface - B OC3, OC3c	EX -	В	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.)
- B OC3, OC3c			
	FC -	ъ	•
D 0.014	-		
- D OC12	-	D	
GO - ground start loop signaling - open end function by	GO -		
GS - customer's end user ground start loop signaling - closed end function by	CS		
GS - ground start loop signaling - closed end function by customer or customer's end user	us -		

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) <u>Parameter Codes and Options</u> (Cont'd)

Code	Option	<u>Definition</u>
IA - LA -		E.I.A. (25 pin RS-232) end user loop start loop signaling - Type A OPS registered port open end
LB -		end user loop start loop signaling - Type B OPS registered port open end
LC -		end user loop start loop signaling - Type C OPS registered port open end
LO -		loop start loop signaling - open end function by customer or customer's end user
LR -		20 Hz automatic ringdown interface at customer with Telephone Company provided PLAR
LS -		loop start loop signaling - closed end function by customer or customer's end user
NO -		no signaling interface, transmission only
PG -		program transmission - no dc signaling
_	1	nominal frequency from 50 to 15000 Hz
	3	nominal frequency from 200 to 3500 Hz
	5	nominal frequency from 100 to 5000 Hz
	8	nominal frequency from 50 to 8000 Hz
PR -	O	protective relaying*
RV -	O	reverse battery signaling, one way operation, originate
	Ü	by customer
-	T	reverse battery signaling, one way operation, terminate function by customer's or customer's end user
SF -		single frequency signaling with VF band at either customer POT or customer's end user POT

^{*} Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) <u>Parameter Codes and Options</u> (Cont'd)

Cod	<u>e</u>	<u>Option</u>	<u>Definition</u>					
SO	_		SONET Optical					
	_	AB	Long Range Multi-longitudinal Mode (LR1-MLM)					
			Bidirectional Ring					
	-	AU	LR1-MLM Unidirectional Ring					
	-	BB	Long Range Single Longitudinal Mode (LR1-SLM)					
			Bidirectional Ring					
	-	BU	LR1-SLM Unidirectional Ring					
	-	CB	Intermediate Range Multi-longitudinal Mode					
			(IR1-MLM) Bidirectional Ring					
	-	CU	IR1-SLM Unidirectional Ring					
	-	DB	Intermediate Range Single Longitudinal Mode					
		~	(IR1-SLM) Bidirectional Ring					
	-	DU	IR1-SLM Unidirectional Ring					
	-	EB	Short Range Multi-longitudinal Mode Light Emitting					
		EII	Diode (SR-MLM/LED) Bidirectional Ring					
	-	EU	SR-MLM/LED Unidirectional Ring					
	-	FB	Short Range Multi-longitudinal Mode (SR-MLM)					
		FU	Bidirectional Ring SR-MLM Unidirectional Ring					
ST	-	ΓU	Synchronous Transmission Signal (STS)					
ST	_	A	STS-1					
TF		Λ	telephotograph interface					
	_		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)					

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 <u>Special Access Service</u> (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
Fiber	F
Radio	R

^{*} 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.

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u>

The following tables show the Network Channel Interface codes (NCI's) which are compatible:

(1) Metallic

Compatible NCIs					
2DC8-1	2DC8-2				
2DC8-3	2DC8-3				
4DS8	2DC8-1 2DC8-2				

(2) <u>Telegraph Grade</u>

Compatible NCIs		Compatible NCIs		
-		_		
2DB2-10	10IA8	4DB2-10	10IA8	
	2TT2-2		2TT2-2	
	4TT2-2		4TT2-2	
2DB2-43*	10IA8	4DB2-43*	10IA8	
	2TT2-2		2TT2-6	
	2TT2-6		4TT2-2	
	4TT2-2			
		4DS8-	10IA8	
2TT2-2	2TT2-2		2TT2-2	
			2TT2-6	
2TT2-3	2TT2-2		4TT2-2	
	4TT2-2		4TT2-6	
2TT2-6	2TT2-6	4TT2-2	4TT2-2	
	4TT2-6			
		4TT2-6	2TT2-6	

^{*} Supplemental Channel Assignment information required.

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

(3) <u>Voice Grade</u>

Compatible NCIs		Compatible NCIs		Compatible NCIs	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2 4DS8 4DX2 4DX3 4DY2 4EA2-E 4EA2-M 4SF2	2DX3	2LA2 2LB2 2LC2 2LO3 2LS2 2LS3	2LS2	2GS 2LS 4GS 4LS 2LA2 2LB2 2LC2
	4SF3 6DX2	2002	2GS3	2LS3	2LA2
	6DY2 6DY3 6EA2-E	2GO3	2GS2 2GS3		2LB2 2LC2
	6EA2-M 6EB2-E 6EB2-M	2GS	2GS 2LS 4GS	2NO2	2DA2 2NO2
	6EB3-E 8EB2-E		4LS	2NO3	2NO2 2PR2
	8EB2-M 8EC2 9DY2	2LO2	2LS2 2LS3	2TF3	2TF2
	9DY3 9EA2 9EA3	2LO3	2LS2 2LS3		

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (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 NCIs		Compatible NCIs		Compatible NCIs	
4AB2	2AC2	4DS8	2AC2	4DS8	4EA2-E
	4AB2		2DA2		4EA2-M
	4AC2		2DY2		4LR2
	4SF2		2GO2		4LS2
			2GO3		4NO2
4AB3	2AC2		2GS2		4PR2
	4AC2		2GS3		4RV2-T
	4SF2		2LA2		4SF2
			2LB2		4SF3
4AC2	2AC2		2LC2		4TF2
	4AC2		2LO2		6DA2
			2LO3		6DY2
4DA2	4DA2		2LR2		6DY3
			2LS2		6EA2-E
4DB2	2DA2		2LS3		6EA2-M
	2NO2		2NO2		6EB2-E
	2PR2		2PR2		6EB2-M
	4DA2		2RV2-T		6GS2
	4DB2		2TF2		6LS2
	4NO2		4AC2		8EB2-E
	4PR2		4DA2		8EB2-M
	6DA2		4DE2		9DY2
			4DG2		9DY3
4DD3	2DE2		4DX2		9EA2
	4DE2		4DX3		9EA3
			4DY2		

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.2 Network Channel Interface (NCI) Codes (Cont'd)
 - (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)
 - (3) <u>Voice Grade</u> (Cont'd)

Compatible NCIs		Compatible NCIs		Compatible NCIs	
4DX2	2DY2 2LA2	4DX3	2DY2 2LA2	4DY2	2DY2 4DY2
	2LB2		2LB2		
	2LC2		2LC2	4EA2-E	2DY2
	2LO3		2LO3		4DY2
	2LS2		2LS2		4EA2-E
	2LS3		2LS3		4EA2-M
	2RV2-T		2RV2-T		4SF2
	4DX2		4DX2		6DY2
	4DY2		4DX3		6DY3
	4EA2-E		4DY2		6EB2-E
	4EA2-M		4EA2-E		6EB2-M
	4LS2		4EA2-M		8EB2-E
	4RV2-T		4LS2		8EB2-M
	4SF2		4RV2-T		9DY2
	4SF3		4SF2		9DY3
	6DY2		4SF3		
	6DY3		6DY2	4EA2-M	2DY2
	6EA2-E		6DY3		4DY2
	6EA2-M		6EA2-E		4EA2-M
	6EB2-E		6EA2-M		4SF2
	6EB2-M		6EB2-E		6DY2
	6LS2		6EB2-M		6DY3
	8EB2-E		6LS2		6EB2-E
	8EB2-M		8EB2-E		6EB2-M
	9DY2		8EB2-M		8EB2-E
	9DY3		9DY2		8EB2-M
	9EA2		9DY3		9DY2
	9EA3		9EA2		9DY3
			9EA3		

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

(3) <u>Voice Grade</u> (Cont'd)

Compatible NCIs		Compatible NCIs		Compatible NCIs	
4EA3-E	2DY2 4DY2 4EA2-E 4EA2-M 4SF2	4GO3	2GO2 2GS2 2GS3 4GS2 4SF2	4LS	2GS 2LS 4GS 4LS
	6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M	4GS	6GS2 2GS 2LS 4GS 4LS	4LS2	2LA2 2LB2 2LC2 2LO2 2LO3
	8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3	4LO2	2LS2 2LS3 4LS2 4SF2 6LS2	4LS3	2LA2 2LB2 2LC2 2LO2 2LO3 4SF2
4GO2	2GO2 2GO3 2GS2 2GS3 4GS2 4SF2 6GS2	4LO3 4LR2	2LS2 2LS3 4LS2 4SF2 6LS2	4NO2	2DA2 2DE2 2NO2 4DA2 4DE2 4NO2 6DA2
		4LR3	4LR2 4SF2 2LR2 4LR2 4SF2	4RV2-0	2RV2-T 4RV2-T 4SF2

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (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 NCIs		Compatib	le NCIs	Compatible NCIs	
Compatib 4SF2	2AC2 2DY2 2GS2 2GS3 2LA2 2LB2 2LC2 2LO3 2LR2 2LS2 2LS3 2RV2-T 4AC2 4DY2	Compatible 4SF3	2DY2 2GO3 2GS2 2GS3 2LA2 2LB2 2LC2 2LC2 2LO3 2LR2 2LS2 2LS3 2RV2-T 4DY2 4EA2-E	Compatibl 4TF2	2TF2 4TF2
	4DY2 4LS2 4RV2-T 4SF2 6DY2 6DY3 6GS2 9DY2 9DY3		4EA2-M 4GS2 4LR2 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EB2-E		
			6EB2-M 6GS2 6LS2 9DY2 9DY3 9EA2 9EA3		

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

(3) <u>Voice Grade</u> (Cont'd)

Compatible NCIs		Compatible NCIs		Compatible NCIs	
6DA	4DA2 6DA2	6EA2-E	2AC2 2DY2	6EA2-M	2AC2 2DY2
6DX2	2DY2 4DY2		2LA2 2LB2 2LC2		2LA2 2LB2 2LC2
	4EA2-E 4EA2-M		2LO3 2LS2		2LO3 2LS2
	4SF2 6DY2		2LS3 2RV2-T		2LS3 2RV2-T
	6DY3 6EA2-E		4AC2 4DY2		4AC2 4DY2
	6EA2-M 6EB2-E		4EA2-E 4EA2-M		4EA2-E 4EA2-M
	6EB2-M 8EB2-E		4LS2 4RV2-T		4LS2 4RV2-T
	8EB2-M 9DY2		4SF2 4SF3 6DY2		4SF2 4SF3
	9DY3 9EA2 9EA3		6DY3 6EA2-E		6DY2 6DY3 6EA2-M
6DY2	2DY2		6EA2-H 6EB2-E		6EB2-E 6EB2-M
0D12	4DY2 6DY2		6EB2-M 6LS2		6LS2 8EB2-E
6DY3	2DY2		8EB2-E 8EB2-M		8EB2-H 9DY2
0D13	4DY2 6DY2		9DY2 9DY3		9DY3
	6DY3		-		

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.2 Network Channel Interface (NCI) Codes (Cont'd)
 - (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)
 - (3) <u>Voice Grade</u> (Cont'd)

Compatible NCIs		Compatible NCIs		Compatible NCIs	
6EB2-E	2DY2	6EB3-E	2DY2	6EX2-B	2GO3
	4DY2		4DY2		2LA2
	4SF2 6DY2		4EA2-E 4EA2-M		2LB2 2LC2
	6DY3		4EA2-M 4SF2		2LC2 2LO2
	6EB2-E		4SF2 6DY2		2LO2 2LO3
	6EB2-E		6D12 6DY3		2LO3 2LR2
	9DY2		6EA2-E		4LR2
	9D12 9DY3		6EA2-M		4SF2
	<i>)</i> D13		8EB2-E		4012
6EB2-M	2DY2		8EB2-M	6GO2	2GO2
OLD2 IVI	4DY2		9DY2	0002	2GS2
	4SF2		9DY3		2GS3
	6DY2		9EA2		4GS2
	6DY3		9EA3		4SF2
	6EB2-M				6GS2
	9DY2	6EX2-A	2GS2		
	9DY3		2GS3	6LO2	2LS2
			2LS2		2LS3
			2LS3		4LS2
			4GS2		4SF2
			4LS2		6LS2
			4SF2		
			6GS2	6LS2	2LA2
			6LS2		2LB2
					2LC2
					2LO2
					2LO3
					4SF2

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (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 NCIs		Compatible NCIs		Compatible NCIs	
Compatil 8EB2-E	2AC2 2DY2 2LA2 2LB2 2LC2 2LO3 2LS2 2LS3 2RV2-T 4AC2 4DY2 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EB2-E 6EB2-M 6LS2 8EB2-E 8EB2-M 9DY2	8EB2-M	2AC2 2DY2 2LA2 2LB2 2LC2 2LO3 2LS2 2LS3 2RV2-T 4AC2 4DY2 4LS2 4RV2-T 4SF2 4SF3 6DY2 6DY3 6EB2-E 6EB2-M 6LS2 8EB2-M 9DY2 9DY3	8EC2	2DY2 4DY2 4EA2-E 4EA2-M 4SF2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3
	9DY3				

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.2 Network Channel Interface (NCI) Codes (Cont'd)
 - (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)
 - (3) <u>Voice Grade</u> (Cont'd)

Compatible NCIs		Compati	Compatible NCIs		Compatible NCIs	
9DY2	2DY2 4DY2 6DY2 6DY3 9DY2	9EA2	2DY2 4DY2 4EA2-E 4EA2-M 6DY2 6DY3	9EA3	2DY2 4DY2 4EA2-E 4EA2-M 6DY2 6DY3	
9DY3	2DY2 4DY2 6DY2 6DY3 9DY2 9DY3		6EA2-E 6EA2-M 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3		6EA2-E 6EA2-M 6EB2-E 6EB2-M 8EB2-E 8EB2-M 9DY2 9DY3 9EA3	

15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

(4) <u>Program Audio</u>

Compatible NCIs		Compatible NCIs
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	4DS8-15H 2PG1-1 2PG2-1

(5) <u>Video</u>

Compatible NCIs		Compatible NCIs		
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	

Transmittal No. 1

- 15. <u>Access Service Interfaces and Transmission Specifications</u> (Cont'd)
 - 15.2 <u>Special Access Service</u> (Cont'd)
 - 15.2.2 Network Channel Interface (NCI) Codes (Cont'd)
 - (C) <u>Compatible Network Channel Interfaces</u> (Cont'd)
 - (6) <u>Digital Data</u>

Compatible NCIs		<u>Compatil</u>	Compatible NCIs	
4DS8-15	4DS8-15*	4DU5-24	4DU5-24	
	4DU5-24 4DU5-48	4DU5-48	4DU5-48	
	4DU5-56 4DU5-96	4DU5-96	4DU5-96	
	6DU5-24 6DU5-48	4DU8-56	4DU5-56	
	6DU5-96	6DU5-24	6DU5-24	
		6DU5-48	6DU5-48	
		6DU5-56	6DU5-56	
		6DU5-96	6DU5-96	

^{*} Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company Hub.

15. Access Service Interfaces and Transmission Specifications (Cont'd)

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

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) <u>Compatible Network Channel Interfaces</u> (Cont'd)

(7) <u>High Capacity</u>

Compatible NCIs		Compatible NCIs	
4DS0-63	4DS0-63 4DU8-A,B, or C 6DU8-A,B, or C	4DS8-15J	4DU8-A 6DU8-A
4DS6-27	4DS6-27 4DU8-A,B, or C 6DU8-A,B, or C	4DS8-15K	4DU8-B 4DU8-C 6DU8-B 6DU8-C
4DS6-44	4DS6-44 4DU8-A,B, or C 6DU8-A,B, or C	4DS8-31	4DS8-31 4DU8-A,B, or C 6DU8-A,B, or C
4DS8-15	4DS8-15* 4DU8-B 6DU8-8	4DU8- A,B,or C	4DU8-A,B, or C

(8) Synchronous Optical Channel Service

Compatible NCIs		<u>Compati</u>	Compatible NCIs		
4DS9-1S	4DU9-1S	2SOF-A	2SOF-A		
4DS9-1K	4DU9-1K	2SOF-B	2SOF-B		
		2SOF-C	2SOF-C		
		2SOF-D	2SOF-D		
		2SOF-E	2SOF-E		
		2SOF-F	2SOF-F		

^{*} Available only as a cross connect of two individual channels of 1.544 Mbps facilities at a Telephone Company Hub.

(x)

ACCESS SERVICE

16. Public Packet Data Network

Public Packet Data Networks utilize separate data networks, comprised of switching, routing and transmission facilities. The networks provide for the transfer of data provided by a customer in a frame or cell format. The data is separated into discrete segments for transmission through the public packet data network.

16.1 Frame Relay Access Service

16.1.1 General

Frame Relay Access Service (FRAS) is a medium-speed, connection-oriented packet-switched data service that allows for the interconnection of Local Area Networks (LANs) or other compatible customer premises equipment for the purpose of connecting to an interstate frame relay network. FRAS also allows for the interconnection of a customer designated premises to a DSL Access Service Connection Point, as described in Section 8, preceding. The terminal equipment accumulates the customer data and puts it into a frame relay format suitable for transmission over the FRAS network. This terminal equipment must conform to the requirements specified in the following Technical References:

ITU-CCITT I.233.1, (x)
ITU-CCITT I.233.2, (x)
ITU-CCITT I.370, and (x)
ITU-T Q.933 (x)

FRAS permits customers to share network bandwidth for data transmissions.

Rates and charges for FRAS are set forth in Section 17.5.1, following. The application of rates for FRAS is described in Section 16.1.4, following.

In addition to the regulations and charges specified in this section, the general regulations and charges specified in other sections of this tariff apply as appropriate.

16.1.2 Service Description

FRAS is a transport service that facilitates the exchange of variable length information units (frames) between customer connections. Frames travel a fixed path through the network with an address that specifies the permanent virtual connection. Addresses are read by the network processor and the frames are relayed to the preassigned destination.

FRAS service includes: the Frame Relay Access Connection, the Frame Relay Inter-network Connection, and Permanent Virtual Connections (PVC) which have associated Committed Information Rates (CIRs).

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Transmittal No. 1

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Service Description (Cont'd)

The Frame Relay Access Connection and the Frame Relay Inter-network Connection elements provide access to a Telephone Company wire center equipped with a frame relay switch. A generic view of FRAS access is shown in 16.1.4(A), following. Frame Relay Access Service connections are available from the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

(x) (x)

The Frame Relay Access Connection combines a frame relay compatible 56.0 kbps, 64.0 kbps, 1.544 Mbps, or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Access Connection includes the Telephone Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port. The end user port is a user-to-network interface which provides the lineside physical entry point into the Telephone Company frame relay network and permits FRAS compatible end user customer premises equipment (CPE) to originate or terminate an interstate access service.

Connections between end user customer premises equipment and the Telephone Company frame relay switch are available at speeds of 56.0 kbps, 64.0 kbps, 1.544 Mbps, or 44.736 Mbps. Each end user port requires the identification of a corresponding terminating port. All end user ports must be in conformance with the Technical References specified in (A), above.

(x)

The Frame Relay Inter-network Connection combines a frame relay compatible 1.544 Mbps or 44.736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Inter-network Connection includes the Telephone Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port. The inter-network customer port is a network-to-network interface which provides the trunk side physical entry point into the Telephone Company frame relay network. The inter-network customer port connects the Telephone Company frame relay switch and the access customer's network. The inter-network customer port is offered at speeds of 1.544 Mbps or 44.736 Mbps. All inter-network customer ports must be in conformance with Technical Reference TR-TSV-001370, Issued: May 1993.

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(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Service Description (Cont'd)

The Telephone Company will provide the logical circuits required within its frame relay network to connect the ports or to connect a port with a DSL Access Service Connection Point. These logical circuits, or Permanent Virtual Connections (PVCs), are software defined, end-to-end, bi-directional communications paths that are established and dis-established via the access service order process. While no physical circuits are dedicated, the two network addresses (one from each port) are connected electronically to form a PVC.

There are two types of PVCs available. The standard PVC establishes a communications path within the Telephone Company's frame relay network between two ports or between a port and a DSL Access Service Connection Point. The extended PVC establishes a communications path on two interconnected telephone companies' frame relay networks located in adjacent serving territories between two ports or between a port and a DSL Access Service Connection Point.

At the time service is ordered, the number of PVCs will be identified along with their Committed Information Rates (CIRs). CIR is the bit rate at which the FRAS network commits to transfer data. Committed Information Rates provide for frame relay switch throughout at designated speeds, as set forth in Section 16.1.4(A)(3), following. This information is required for network routing purposes.

Frame Relay Access Service is ordered under the Access Order provisions, as set forth in Section 5.2, preceding. Also included in that section are other charges which may be associated with ordering FRAS (e.g., Service Date Change Charges, Cancellation Charges, etc.).

A minimum of two FRAS connections are required for data to be transported between customer designated premises.

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

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.3 Service Provided by More than One Telephone Company

There are two types of arrangements available for Frame Relay Access Service (FRAS) when the service is provided by more than one Telephone Company, (i.e., Jointly-Provided FRAS and Interconnected FRAS), as described below.

(A) <u>Jointly-Provided FRAS</u>

When the transport facility between the customer designated premises and a wire center equipped with a frame relay switch is provided by more than one Telephone Company, the telephone companies involved will provide a Special Access Service facility, as set forth in Section 7, preceding, and in accordance with Sections 2.4.7 and 5.3, preceding.

Jointly-Provided FRAS service includes: the End User Port, the Inter-network Customer Port, and Permanent Virtual Connections (PVCs) which have associated Committed Information Rates (CIRs). A Special Access Service facility is used to connect to the frame relay switch.

Connections are provided via Channel Termination(s) and Channel Mileage, as specified in Section 7 Special Access Digital Data and High Capacity Services, preceding. All regulations, rates and charges, as specified in Section 7, will apply in addition to the rates and charges associated with FRAS. A generic view of jointly-provided FRAS is shown in Section 16.1.4(A), following.

The Telephone Company that provides the frame relay switch will bill an End User Port charge for the end user port connection and/or an Inter-network Customer Port charge for the inter-network customer port connection.

The Special Access Service, End User Port, and/or Inter-network Customer Port charge(s) will apply in lieu of the Frame Relay Access Connection or Frame Relay Inter-network Connection.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.3 <u>Service Provided by More than One Telephone Company</u> (Cont'd)

(B) Interconnected FRAS

Interconnected FRAS allows the Telephone Company to interconnect its frame relay network with another telephone company's frame relay network. Interconnected FRAS provides connections between telephone companies in adjacent serving territories and in non-adjacent serving territories.

(1) Adjacent Serving Territories

In order to connect the Telephone Company's frame relay switch to a frame relay switch of another telephone company that is located in an adjacent serving territory, the customer must order Extended Permanent Virtual Connections (EPVCs), which have associated CIRs. The E-PVCs are in addition to the Frame Relay Access Connection (FRAC) and/or Frame Relay Inter-network Connection (FRIC) that are required to complete the connection from the Customer's Designated Premises (CDP) to the Telephone Company's frame relay switch. A generic view of Interconnected FRAS between adjacent serving territories is shown in Section 16.1.4 (A), following.

(2) Non-Adjacent Serving Territories

In order to connect the Telephone Company's frame relay switch to a frame relay switch of another telephone company that is located in a non-adjacent serving territory, the customer must order Inter-network Customer Ports (ICPs) and a High Capacity Special Access Channel Mileage Facility to connect the two networks. These elements are in addition to the FRAC and/or the FRIC and the Standard Permanent Virtual Connections (SPVCs), which have associated CIRs, that are required to complete the connection from the CDP to the Telephone Company's ICP.

Connections between the two Telephone Companies' ICPs are provided using 1.544 Mbps and/or 44.736 Mbps High Capacity Channel Mileage Facility, as specified in Section 7.10 High Capacity Special Access Services, preceding. Channel Mileage Termination(s) do not apply. A generic view of Interconnected FRAS between non-adjacent serving territories is shown in Section 16.1.4(A), following.

(x)

(x)

(x)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations

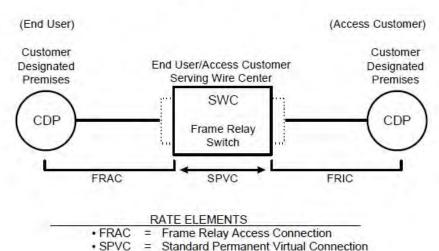
This section contains the specific regulations governing the rates and charges that apply for Frame Relay Access Service.

Frame Relay Access Service is available at the wire centers as identified in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. In the case of Interconnected Frame Relay Access Service, National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. also identifies the intermediate and super-intermediate wire centers.

(A) Rate Categories

The following diagrams depict generic views of the components of Frame Relay Access Service and the manner in which the components are combined to provide FRAS, Interconnected FRAS, and Jointly-Provided FRAS.

Frame Relay Access Service Customer's Serving Wire Center is equipped with a frame relay switch



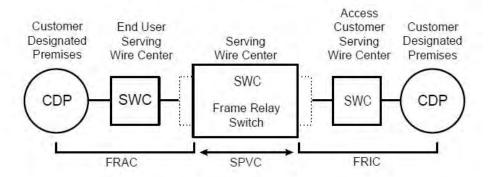
• FRIC = Frame Relay Inter-network Connection

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- 16. Public Packet Data Network (Cont'd)
 - 16.1 Frame Relay Access Service (Cont'd)
 - 16.1.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)

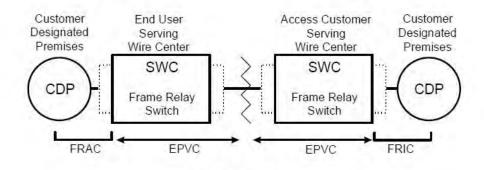
Frame Relay Access Service

Customer's Serving Wire Center is not equipped with a frame relay switch



Interconnected FRAS Between Adjacent Serving Territories

EC A EC B



RATE ELEMENTS

- FRAC = Frame Relay Access Connection
 EPVC = Extended Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

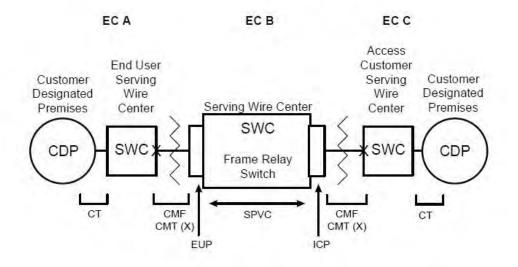
16. <u>Public Packet Data Network</u> (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

Jointly-Provided Frame Relay Access Service



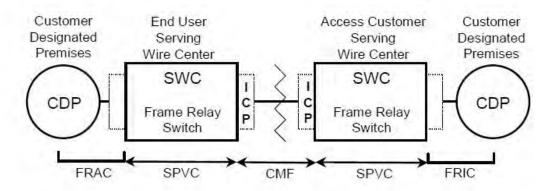
-	RATE ELEMENTS	
	(Special Access Service)	(Frame Relay Access Service)
EC "A"	CT = Channel Termination CMT = Channel Mileage Termination CMF = Channel Mileage Facility	
EC "B"	 CMF = Channel Mileage Facility CMF = Channel Mileage Facility 	EUP = End User Port SPVC = Standard Permanent Virtual Connection ICP = Inter-network Customer Port
EC "C"	CT = Channel Termination CMT = Channel Mileage Termination CMF = Channel Mileage Facility	

DATE ELEMENTS

- 16. Public Packet Data Network (Cont'd)
 - 16.1 Frame Relay Access Service (Cont'd)
 - 16.1.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)

Interconnected FRAS Between Non-Adjacent Serving Territories

EC A EC B



	RATE ELEME	NTS
	(Special Access Service)	(Frame Relay Access Service)
EC "A"-	CMF = Channel Mileage Facility	FRAC = Frame Relay Access Connection SPVC = Standard Permanent Virtual Connectio ICP = Inter-network Customer Port
EC "B"-	CMF = Channel Mileage Facility	FRIC = Frame Relay Inter-network Connection SPVC = Standard Permanent Virtual Connection ICP = Inter-network Customer Port

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(1) Frame Relay Access Connection

The Frame Relay Access Connection (FRAC) rate element recovers the costs associated with the communication path between the end user's premises and the Telephone Company wire center equipped with a frame relay switch. The FRAC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port on the Telephone Company's frame relay switch.

One FRAC charge applies per customer designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Telephone Company building.

(2) Frame Relay Inter-network Connection

The Frame Relay Inter-network Connection (FRIC) rate element recovers the costs associated with the communication path between the access customer's premises and the Telephone Company wire center equipped with a frame relay switch. The FRIC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the inter-network customer port on the Telephone Company's frame relay switch.

One FRIC charge applies per customer designated premises at which the FRAS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Telephone Company building.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(3) End User Port

An End User Port charge is applied as a discrete rate element in conjunction with jointly-provided Special Access Service. Refer to Sections 7.9 and 7.10, preceding, for additional applicable rates and charges.

The End User Port is the physical location in the Telephone Company switching office where the transport facility of the customer connects to the FRAS Network. It specifies how a frame relay switch sends and receives data from a frame relay end user customer's LAN or other compatible CPE devices.

The End User Port consists of a 56.0 kbps, 64.0 kbps, 1.544 Mbps, or 44.736 Mbps interface. The port connecting the transport facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

(4) Inter-network Customer Port

An Inter-network Customer Port Charge is applied in conjunction with Jointly-Provided FRAS and Interconnected FRAS between non-adjacent serving territories. Refer to Section 7.10, preceding, for additional applicable rates and charges for the High Capacity Special Access Service used in conjunction with these services.

The Inter-network Customer Port is the physical location in the Telephone Company switching office where the access customer's transport facility connects to the Telephone Company's FRAS network. It specifies how a frame relay switch sends and receives data from a frame relay access customer's network.

The Inter-network Customer Port is offered at speeds of 1.544 Mbps or 44.736 Mbps. The port connecting the transport facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(5) Permanent Virtual Connection (PVC)

A PVC is a software defined communications path between two port connections or between a port connection and a DSL Access Service Connection Point.

Each PVC is provisioned with a customer selected Committed Information Rate (CIR). The CIR is a transmission speed specified by the customer. CIRs range from 8 kbps to 768 kbps. The Telephone Company will provide switch capacity to permit the customer to transmit information with guaranteed delivery at the specified CIR. The Telephone Company will permit customers to attempt to transmit beyond the specified CIR up to the actual throughput speed of the port with no guarantee of completion. Attempted transmissions above the actual throughput speed of the port will not be permitted.

Customers will be permitted to order multiple PVCs on a given port, subject to switch limitations. Customers anticipating non-simultaneous transmission may order CIRs assigned to these multiple PVCs, the sum of which may theoretically exceed the actual throughput of the port. However, when simultaneous transmission of multiple PVCs occurs, the total of the transmission rate (CIRs) may not exceed the actual throughput of the port.

There are two types of PVCs available. The standard PVC (SPVC) establishes a communications path within the Telephone Company's frame relay network between two ports, or between a port and a DSL Access Service Connection Point. The extended PVC (EPVC) establishes a communications path on two interconnected telephone companies' frame relay networks located in adjacent serving territories between two ports, or between a port and a DSL Access Service Connection Point.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

(B) Types of Rates and Charges

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

(1) <u>Monthly Rates</u>

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

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for FRAS are: installation of service and service rearrangements. These charges are in addition to the Access Order Charge, as specified in Section 17.4.1, following:

(a) <u>Installation of Service</u>

Nonrecurring charges apply for the installation of Frame Relay Access Connections (FRAC), Frame Relay Inter-network Connections (FRIC), and Permanent Virtual Connections (PVC).

A nonrecurring charge applies per FRAC or FRIC installed and is based on the speed of the connection.

A nonrecurring charge applies per PVC installed.

(b) Service Rearrangements

Service Rearrangements are changes to existing (installed) services.

A PVC Rearrangement Charge will be applied whenever a change is made to the CIR of an existing PVC after initial port installation and/or a change is made to the terminating port destination of the PVC.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

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

(2) <u>Nonrecurring Charges</u> (Cont'd)

(b) <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 physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

(c) Moves

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

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

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

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16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.4 Rate Regulations (Cont'd)

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

(2) Nonrecurring Charges (Cont'd)

(c) Moves (Cont'd)

(i) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge, as specified in Section 17.4.1, following.

(ii) Moves To a Different Building

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

(C) <u>Minimum Period</u>

The minimum period for FRAS is one month and the full monthly rate will apply to the first month. Adjustments for quantities of services established or discontinued in any billing period, beyond the minimum period, are as set forth in Section 2.4.1(F), preceding.

The minimum period for discounted FRAS is twelve months, as set forth in Sections 2.4.2 and 5.5.1, preceding.

Effective: July 1, 2016

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16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.5 FRAS Term Discount Plan

An optional term discount plan is available for Frame Relay Access Service (FRAS). The Term Discount applies to the Frame Relay Access Connection and Frame Relay Inter-network Connection charges. The End User Port and Inter-network Customer Port charges are eligible for term discounts where the associated Special Access Service facility is eligible for a Special Access Service Term Discount. The conditions under which End User Port and Inter-network Customer Port Term Discounts apply are specified in Section 7.2.8(A), preceding, while the Term Discount percentage is as set forth in Section 17.5.1(E), following. The Permanent Virtual Connections (PVCs) are not eligible for a Term Discount. Under the FRAS Term Discount plan, the current monthly rates for eligible services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer. The Term Discount percentages for FRAS are as set forth in Section 17.5.1(E), following.

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

The minimum service period on a month-to-month basis is one month. Under an Optional Rate Plan, the minimum service period is twelve months.

FRAS may be ordered, at the customer's option, on a month-to-month basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

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

For customers that subscribe to the Term Discount plan for 36 or 60 months, the Term Discount percentage, as set forth in Section 17.5.1(E), following, will be frozen from Company initiated decreases for the entire discount period at the percent in effect at the beginning of the Term Discount period.

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

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.5 FRAS Term Discount Plan (Cont'd)

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

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

Eligible FRAS rate elements are those provided to a customer within the same state and LATA by the same Telephone Company. As long as the number of FRAS connections included in a Term Discount plan remains constant, customer requests to install and disconnect FRAS connections, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges as set forth in (C) following will not apply.

(A) <u>Upgrades in Term Discounts</u>

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

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.5 FRAS Term Discount Plan (Cont'd)

(B) <u>Upgrades in Capacity</u>

If the customer chooses to upgrade a service under the Term Discount plan to a higher capacity (e.g., from 56.0 kbps to 64.0 kbps, or from 56.0 kbps or 64.0 kbps to 1.544 Mbps), discontinuance charges will not apply, provided all the following conditions are met:

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

A new minimum service period applies to all upgrades. A Frame Relay Access Connection nonrecurring charge for an equivalent capacity of the existing services being upgraded to the higher speed service will not be assessed. FRAC nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service, if requested at the same time as the upgrade request. Nonrecurring charges will apply for capacity that exceeds the existing equivalent capacity.

Discontinuance charges will not apply should the customer choose to upgrade either a portion of or the entire FRAS under the Term Discount plan and move the service to a new customer location(s) within the same state and LATA where service is provided by the same Telephone Company.

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.5 FRAS Term Discount Plan (Cont'd)

Discontinuance of Service (C)

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

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

Should the customer choose to discontinue service ordered under a Term Discount plan after the minimum service period, but before the completion of the discount period, discontinuance charges will apply. Discontinuance charges of fifteen percent of the total undiscounted monthly charges will apply to the remaining portion of the discount period. For example, a customer has a 1.544 Mbps Frame Relay Access Connection which it chooses to discontinue after 33 months into a 60month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

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16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u>

16.2.1 General

Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) is a connection-oriented transport service that is based on Asynchronous Transfer Mode (ATM) technology using fixed length, 53-byte cells. ATM cells generated by ATM-compatible customer premises equipment (CPE) are transmitted through the Telephone Company's ATM-CRS network to a pre-specified destination.

ATM-CRS provides customers requiring high-speed data transport for bandwidth intensive data, voice, or video applications with the ability to interconnect multiple locations using the Telephone Company's ATM-CRS network. The customer may use ATM-CRS to interconnect its customer designated premises (CDPs), served by the Telephone Company's ATM-CRS network, to interconnect its local area network (LAN) to the Telephone Company's ATM-CRS network, and/or to interconnect its CDPs to an ATM network located outside of the Telephone Company's serving territory.

16.2.2 <u>Service Description</u>

ATM-CRS is provided using a combination of Ports, Virtual Paths, and Virtual Circuit Channels. An ATM-CRS Port is required to provide the interface into the Telephone Company's ATM-CRS network. A Virtual Path (VP) is required to establish a transmission path between any two ATM-CRS Ports. Virtual Circuit Channels (VCCs) may be ordered from the Telephone Company to establish a communications path between any two CDPs, or established by the customer using its own equipment.

Service is provided, where available, between CDPs and designated Telephone Company Serving Wire Centers (SWCs). ATM-CRS will be furnished where suitable facilities exist as determined by the Telephone Company. The Telephone Company will identify its ATM-CRS equipped Serving Wire Centers in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Rates and charges for ATM-CRS are specified in Section 17.5.2, following. The application of rates and charges for ATM-CRS is described later in this section.

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16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.3 Obligations of the Customer

In addition to the regulations described in other sections of this tariff, the following provisions apply to ATM-CRS:

- (A) The customer is responsible for providing the Telephone Company with the necessary information to provision ATM-CRS, as specified in Section 5.2 Ordering Requirements, preceding.
- (B) The customer is responsible for providing and maintaining all required customer premises equipment (CPE), which is compatible with ATM-CRS and complies with the standards specified in the following publications: The ATM Forum Technical Committee ATM User-Network Interface (UNI) Signaling Specification (Version 4.0), Private Network-Network Interface Specification (Version 1.0), and BISDN Inter Carrier Interface (B-ICI) Specification (Version 2.0).

A customer ordering Ethernet-based ATM-CRS Ports is also responsible for ensuring that its CPE complies with the standards specified in Technical Reference IEEE Std. 802.3-2008, Part 3, Section 1, Clause 15 for 10BASE-F, Section 2, Clause 26 for 100BASE-F, and Section 3, Clauses 34 through 38 for 1000BASE-X connections.

A customer ordering the ATM-CRS Port Internet Protocol (IP) Function is also responsible for ensuring that its CPE hands off IP packets to the Telephone Company's ATM-CRS network in a format that complies with the standards specified in the Internet Engineering Task Force Request For Comments (RFC) 791 entitled "INTERNET PROTOCOL, DARPA Internet Program Protocol Specification" (September 1981) and RFC 1483 entitled "Multiprotocol Encapsulation over ATM Adaptation Layer 5" (July 1993).

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

16. Public Packet Data Network (Cont'd)

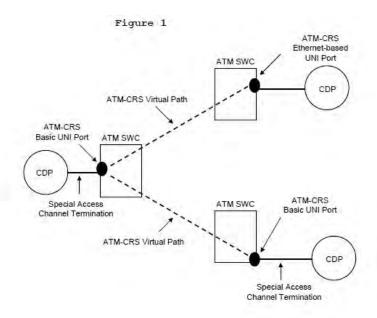
16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations

This section contains the regulations governing the rates and charges that apply for ATM-CRS. Regulations governing the rates and charges for Special, ADSL and/or SDSL Access Services provided under this tariff used in conjunction with ATM-CRS are as specified in Sections 7 and 8, preceding.

The following diagrams depict generic views of the components of ATM-CRS.

In the first figure, all of the customer's CDPs are served by ATM-CRS equipped SWCs. The ATM-CRS customer orders the applicable ATM-CRS components pursuant to the provisions specified in this section and the applicable Special Access Service components pursuant to the provisions specified in Section 7, preceding.

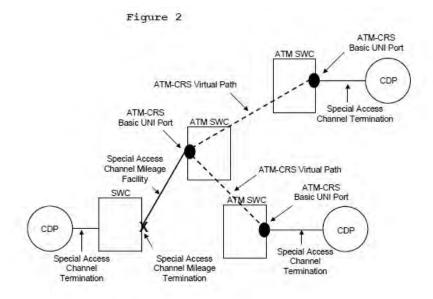


16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

In the second figure, one of the customer's CDPs is not served by an ATM-CRS equipped SWC. The ATM-CRS customer orders the applicable ATM-CRS components pursuant to the provisions specified in this section and the applicable Special Access Service components pursuant to the provisions specified in Section 7, preceding.

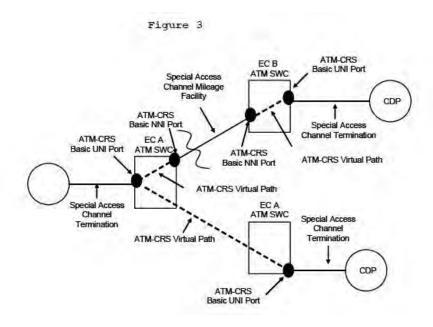


16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

In the third figure, one of the customer's CDPs is served by another telephone company's ATM network. The ATM-CRS customer orders the applicable ATM-CRS components from the Telephone Company pursuant to the provisions specified in this section and the applicable Special Access Service components pursuant to the provisions specified in Section 7, preceding. In addition, the customer will order the applicable ATM and special access services components from the distant telephone company.



16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

(A) Rate Categories

The various ATM-CRS service components are described below.

(1) <u>ATM-CRS Ports</u>

An ATM-CRS Port receives ATM cells from the customer's ATM-compatible CPE, validates the addressing parameters contained in the cell headers, and transmits the cells into the ATM-CRS network. The ATM-CRS Port also receives ATM cells from the Telephone Company's ATM-CRS network or from an ATM network located outside of the Telephone Company's serving territory, validates the addressing parameters contained in the cell headers, and transmits the cells to the pre-designated CDP.

ATM-CRS Ports are available with a User Network Interface (UNI) or a Network to Network Interface (NNI), as described below. Each ATM-CRS Port must be associated with a minimum of one ATM-CRS Virtual Path or DSL Access Service Connection optional function.

Interconnection of the Telephone Company's ATM-CRS network to another ATM network located outside of the Telephone Company's serving territory is provided using ATM-CRS Basic NNI ports and Telephone Company provided Special Access Services.

(a) <u>Basic User Network Interface (UNI) Port</u>

Basic UNI Ports provide a port only interface to the Telephone Company's ATM-CRS network and do not include the required transport facility between the CDP and the Telephone Company's SWC at which the basic UNI Port is located. Transport to connect the CDP with the basic UNI Port is provided using Telephone Company provided DS1 or DS3 High Capacity and/or OC3 or OC12 Synchronous Optical Channel Special Access Services as described in Sections 7.10 and 7.11, preceding. Basic UNI Ports are available at bandwidth speeds of 1.544 Mbps, 44.736 Mbps, 155.52 Mbps and 622.08 Mbps.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(1) ATM-CRS Ports (Cont'd)

(b) Ethernet-based User Network Interface (UNI) Port

Ethernet-based UNI Ports are used to interconnect the customer's Ethernet-compatible CPE with the Telephone Company's ATM-CRS network and include the transport facility between the CDP and the Telephone Company's SWC, provided that the CDP is served by the SWC in which the Ethernet-based UNI Port is located. Ethernet-based UNI Ports are available at bandwidth speeds of up to 10 Mbps (i.e., 10BASE-F), up to 100 Mbps (i.e., 100BASE-F) and up to 1 Gbps (i.e., 1000BASE-X).

(c) Basic Network to Network Interface (NNI) Port

Basic NNI Ports provide a port only interface to the Telephone Company's ATM-CRS network and do not include the required transport facility between the CDP and the Telephone Company's SWC at which the basic NNI Port is located. Transport to connect the CDP with the basic NNI Port is provided using Telephone Company provided DS1 or DS3 High Capacity and/or OC3 or OC12 Synchronous Optical Channel Special Access Services as described in Sections 7.10 and 7.11, preceding. Basic NNI Ports are available at bandwidth speeds of 1.544 Mbps, 44.736 Mbps, 155.52 Mbps and 622.08 Mbps.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (1) ATM-CRS Ports (Cont'd)
 - (d) <u>Ethernet-based Network to Network Interface (NNI)</u> Port

Ethernet-based NNI Ports are used to interconnect the customer's Ethernet-compatible CPE with the Telephone Company's ATM-CRS network and include a fiber only connection between the CDP and the Telephone Company's SWC, provided that the CDP is served by the SWC in which the Ethernet-based NNI Port is located. Ethernet-based NNI Ports are available at bandwidth speeds of up to 10 Mbps (i.e., 10BASE-F), up to 100 Mbps (i.e., 100BASE-F) and up to 1 Gbps (i.e., 1000BASE-X)

Monthly and nonrecurring charges apply for each ATM-CRS Port ordered.

(2) ATM-CRS Visual Paths

An ATM-CRS Virtual Path (VP) is a pre-defined, logical circuit established by the Telephone Company that is required to route ATM cells between any two ATM-CRS Ports located within the Telephone Company's ATM-CRS network. VPs may be established between two ATM-CRS UNI Ports, between an ATM-CRS UNI Port and an ATM-CRS NNI Port, or between two ATM-CRS NNI Ports. VPs are available in increments of 1 Mbps. The bandwidth capacity on a VP may not exceed the maximum bandwidth of the associated ATM-CRS Ports. In addition to specifying the bandwidth capacity required on its order, the customer must specify one of the following traffic routing prioritization parameters for each VP ordered.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(2) <u>ATM-CRS Visual Paths</u> (Cont'd)

(a) Constant Bit Rate (CBR)

CBR supports applications that require special network timing and minimal delay to ensure steady data flow of user information through the ATM-CRS network. Examples of applications requiring CBR include voice, some types of video and circuit emulation for higher speed special access services. CBR is the highest priority traffic on the network.

(b) <u>Variable Bit Rate - real time (VBR-rt)</u>

VBR-rt supports applications for which the data flow is bursty and requires low delay variance in ATM cell transmissions. Examples of applications requiring VBR-rt include voice and video.

(c) Variable Bit Rate - non real time (VBR-nrt)

VBR-nrt supports applications for which the data flow is bursty and variable delays in ATM cell transmissions can be tolerated. Examples of applications requiring VBR-nrt include file transfer, multimedia and computer aided design/computer aided manufacturing (CAD/CAM).

(d) Unspecified Bit Rate (UBR)

UBR supports applications for which the data flow is bursty and delay tolerant using "best effort" engineering. The Telephone Company will attempt to deliver all ATM cells received on a UBR VP, however, network congestion may result in a loss of ATM cells. Examples of applications requiring UBR include interactive data sessions, file transfers, monitoring and signaling.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(2) <u>ATM-CRS Visual Paths</u> (Cont'd)

Monthly and nonrecurring charges apply for each VP ordered. The monthly recurring charge is comprised of a fixed path charge and a variable bandwidth capacity charge, which is calculated based on the total bandwidth of the VP. For example the monthly charge for a single 145 Mbps VBR-rt path would equal \$1,715.83 (\$3.38 fixed plus \$11.81 per Megabit).

(3) ATM-CRS Virtual Circuit Channels (VCCs)

An ATM-CRS Virtual Circuit Channel (VCC) is a pre-defined logical circuit used to route ATM cells between any two CDPs served by the Telephone Company's ATM-CRS network. VCCs may be established by the customer using its CPE or by the Telephone Company in its ATM-CRS network via the service order process.

Monthly and nonrecurring charges apply for each VCC ordered by the customer. Rates and charges specified in Section 17.5.2(C), following, do not apply to VCCs established by the customer.

(4) Optional Features and Functions

(a) <u>DSL Access Service Connection</u>

Where available, ATM-CRS UNI and/or NNI Ports may be equipped with the DSL Access Service Connection function. This function provides for the interconnection of ATM-CRS with ADSL Access Service, as described in Section 8.1, preceding, and with SDSL Access Service, as described in Section 8.2, preceding, provided by the Telephone Company under this tariff. The function also provides for the interconnection of ATM-CRS with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (4) Optional Features and Functions (Cont'd)
 - (a) <u>DSL Access Service Connection</u> (Cont'd)

This optional function allows the ATM-CRS customer to receive ADSL, SDSL, and/or wireline broadband Internet transmission service data traffic from and transmit ADSL, SDSL, and/or wireline broadband Internet transmission service data traffic to its end user customers using a UBR traffic routing prioritization parameter.

It is available only at Telephone Company designated DSL Access Service Connection Point SWCs located within the Telephone Company's serving territory or in the serving territory of another telephone company. The speed of the DSL Access Service Connection function ordered by the customer may not exceed the speed of the associated ATM-CRS Port.

A nonrecurring charge applies per port to equip the ATM-CRS UNI or NNI Port with the DSL Access Service Connection function.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

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

(b) ATM-CRS Port Internet Protocol (IP) Function

Where available, ATM-CRS UNI and/or NNI Ports may be equipped with the ATM-CRS Port Internet Protocol (IP) Function. This non-chargeable optional function allows the customer to transmit IP packets, which were formatted by the customer's CPE in conformance with the standards specified in the Internet Engineering Task Force Request For Comments (RFC) 791 entitled "INTERNET PROTOCOL, DARPA Internet Program Protocol Specification" (September 1981) and RFC 1483 entitled "Multiprotocol Encapsulation over ATM Adaptation Layer 5" (July 1993), through the Telephone Company's ATM-CRS network.

Monthly and nonrecurring charges do not apply to the ATM-CRS Port IP Function. When this function is installed subsequent to the installation of the ATM-CRS Port or removed from an existing ATM-CRS Port, an Access Order Charge, as specified in Section 17.4.1, following, will apply per order.

(B) <u>Types of Rates and Charges</u>

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described below:

(1) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that an ATM-CRS service component is provided. For billing purposes, each month is considered to have 30 days.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

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

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for ATM-CRS are installation of service, service rearrangements, and moves. Except as specified below, these charges are in addition to the Access Order Charge, as specified in Section 17.4.1, following.

(a) <u>Installation of Service</u>

Nonrecurring charges apply for installation of Ports, VPs, VCCs, and Optional Features and Functions ordered by the customer.

(b) Service Rearrangements

Service rearrangements are changes to existing (i.e., installed) services, which may be administrative only in nature, as set forth below, or, that involve an actual physical change to the service.

The VP nonrecurring charge will apply per VP to change the bandwidth capacity and/or to change the traffic routing prioritization parameter on an existing VP.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.4 Rate Regulations (Cont'd)

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

(2) Nonrecurring Charges (Cont'd)

(b) Service Rearrangements

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

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

(c) Moves

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

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

The charges for moving ATM-CRS service components are dependent on whether the move is to a different location within the same building, to a different building within the same SWC, or to a different building in a different SWC. The charges specified below apply in addition to any applicable charges for moving the associated Special Access Services, as specified in Section 7.2.3, preceding.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (c) <u>Moves</u> (Cont'd)
 - (i) Moves Within the Same Building

Port only interfaces (i.e. Basic UNI/NNI Ports), VPs and VCCs are not impacted when a customer moves its Point of Termination to a different location within the same building. The charge for moving an Ethernet-based UNI or Ethernet-based NNI Port within the same building will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the port. There will be no change in the minimum period requirements.

(ii) <u>Moves To a Different Building Within the Same</u> <u>SWC</u>

Port only interfaces (i.e., Basic UNI/NNI Ports), VPs and VCCs are not impacted when a customer moves its Point of Termination to a different building within the same SWC. The move of an Ethernet-based UNI or Ethernet-based NNI Port will be treated as a discontinuance and start of service. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) <u>Nonrecurring Charges</u> (Cont'd)
 - (c) <u>Moves</u> (Cont'd)
 - (iii) <u>Moves to a Different Building in a Different SWC</u>

A move to a different building in a different SWC will be treated as a discontinuance and start of service of all associated ATM-CRS service components. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

(C) Minimum Periods

The minimum period for ATM-CRS service components, provided to a customer, and for which charges are applicable are:

- Twelve months for ATM-CRS Ports, and
- One month for ATM-CRS Virtual Paths and Virtual Circuit Channels.

When a customer replaces its existing ATM-CRS service with a new Ethernet Transport Service provided pursuant to Section 16.3, following, the Telephone Company will waive any unsatisfied minimum period charges that may otherwise be applicable.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.5 ATM-CRS Term Discount Plan

An optional term discount plan is available for Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS). Under the ATM-CRS Term Discount Plan, the monthly rates for eligible ATM-CRS service elements are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the term commitment period selected by the ATM-CRS customer.

ATM-CRS may be ordered at the customer's option on a month-to-month basis, or under a single term commitment period of either 36 months or 60 months. The customer must notify the Telephone Company in writing of the length of its selected term commitment period. For purposes of this plan, all ATM-CRS Basic User Network Interface (UNI), ATM-CRS Basic Network to Network Interface (NNI), ATM-CRS Ethernet-based UNI, and ATM-CRS Ethernet-based NNI Ports included in a customer's ATM-CRS Term Discount Plan are referred to as committed ATM-CRS Ports. To be included in an ATM-CRS Term Discount Plan, all committed ATM-CRS Ports must be ordered for the same term commitment period (i.e., all 36 months or all 60 months) and remain in-service at the same bandwidth capacity throughout the entire term commitment period.

ATM-CRS Ports installed after the establishment of the customer's ATM-CRS Term Discount Plan may be ordered on a month-to-month basis, or added as additional committed ATM-CRS Ports to a customer's existing term commitment period, as described in (A), below.

Access Order Charges, as described in Section 5.4.1, preceding, do not apply to establish a new or make any changes to an existing ATM-CRS Term Discount Plan.

The monthly rates for ATM-CRS service elements are set forth in Section 17.5.2, following. The term discount percentages, for the ATM-CRS Term Discount Plan, are set forth in Section 17.5.2(D), following.

The term discount percentage for the customer's selected term commitment period applies to all committed ATM-CRS Ports provided within the Telephone Company's operating territory. The term discount percentage also applies to the following eligible ATM-CRS elements when these elements are provided within the Telephone Company's operating territory and associated with a committed ATM-CRS Port: (1) ATM-CRS Virtual Paths (VPs); (2) ATM-CRS Virtual Circuit Channels (VCCs); (3) ATM –CRS Digital Subscriber Line VCCs (DSL VCCs); and (4) ATM-CRS Multimedia VCCs (MM-VCCs).

(N)

(N)

(N)

(N)

(N)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.5 <u>ATM-CRS Term Discount Plan</u> (Cont'd)

Since there are no bandwidth or in-service requirements for ATM-CRS VPs, ATM-CRS VCcs, ATM-CRS DSL VCcs and ATM- CRS MM-VCcs associated with committed ATM-CRS Ports under the ATM-CRS Term Discount Plan, customer ordered disconnects of or changes to the number or bandwidth capacities for these elements do not affect the customer's ATM-CRS Term Discount Plan.

The term discount percentage does not apply to: (1) ATM-CRS Ports ordered on a month-to-month basis; (2) ATM-CRS VPs, ATM-CRS VCCs, ATM-CRS DSL VCCs and ATM- CRS MM-VCCs that are not associated with a committed ATM-CRS Port; (3) ATM-CRS nonrecurring charges; and (4) special access services connected to an ATM-CRS Port.

Except as specified in (A)-(C), below, discontinuance charges will apply when the customer fails to satisfy the term commitment period or the in-service requirements for its committed ATM-CRS Ports.

The term discount percentage, set forth in Section 17.5.2(D), following, will not be subject to Telephone Company initiated decreases during the customer's selected term commitment period.

If a term discount percentage increase occurs during the term of an existing ATM-CRS Term Discount Plan, the increased percentage will be applied automatically for the remainder of the customer's existing term commitment period.

At the end of the term commitment period, the customer may subscribe to a new ATM-CRS Term Discount Plan commitment period, or revert to month-to-month rates. If the customer does not notify the Telephone Company in writing of its choice by the end of its existing term commitment period, the Telephone Company will automatically convert the customer's ATM-CRS billing to month-to-month rates. An Access Order Charge will not apply when a customer, at the end of its existing term commitment period, subscribes to a replacement ATM-CRS Term Discount Plan or reverts to month-to-month rates.

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16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.5 ATM-CRS Term Discount Plan (Cont'd)

(A) <u>ATM-CRS Port Additions</u>

An ATM-CRS Term Discount Plan customer will choose one of the following options when ordering a new ATM-CRS Port during its existing term commitment period:

- (1) Add the new ATM-CRS Port to its existing ATM-CRS Term Discount Plan provided: (1) the customer commits to retain the newly installed ATM-CRS Port in-service at the same bandwidth capacity for the remainder of the existing term commitment period, and (2) the ATM-CRS Port is being added before the last year of an existing term commitment period. The term commitment period of the customer's existing ATM-CRS Term Discount Plan will continue uninterrupted. During the last year of the commitment period, ATM-CRS Ports may not be added to an existing term commitment period.
- (2) Order the new ATM-CRS Port on a month-to-month basis. No term discount percentage would apply to the newly installed ATM-CRS Port. The term commitment period of the customer's existing ATM-CRS Term Discount Plan will continue uninterrupted.
- (3) Replace the existing ATM-CRS Term Discount Plan in its entirety with a new ATM-CRS Term Discount Plan as described in (C), below.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.5 <u>ATM-CRS Term Discount Plan</u> (Cont'd)
 - (B) <u>Committed ATM-CRS Port Replacements</u>
 - (1) An ATM-CRS Term Discount Plan customer may disconnect a committed ATM-CRS Port before the end of its existing term commitment period and replace it with one or more newly installed committed ATM-CRS Port(s) without the application of a discontinuance charge as described in (D), below, provided: (1) the bandwidth capacity of the replacement committed ATM-CRS Port(s) is equal to or greater than the bandwidth capacity of the disconnected committed ATM-CRS Port; (2) the customer commits to retain the replacement committed ATM-CRS Port(s) in-service at the same bandwidth capacity for the remainder of the existing term commitment period; (3) the replacement committed ATM-CRS Port(s) is added to the existing term commitment before the last year of an existing term commitment period; and (4) the customer's orders for the disconnection of the originally committed ATM-CRS Port and installation of the replacement committed ATM-CRS Port(s) are submitted to the Telephone Company at the same time and include cross references, as described in Section 5.2.7, preceding.
 - (2) If the bandwidth capacity of the newly installed committed ATM-CRS Port(s) is less than the bandwidth capacity of the disconnected committed ATM-CRS Port, the disconnected committed ATM-CRS Port will be subject to a discontinuance charge as described in (D), below. The newly installed port(s) can be added, as a committed ATM-CRS Port(s), to the existing term commitment period, or ordered on a month-to-month basis as described in (A), above.
 - (3) Since newly installed ATM-CRS Ports cannot be added to an existing term commitment period during the last year of the commitment period, an existing committed ATM-CRS Port disconnected during the last year of the commitment period cannot be replaced as described in (B)(1), above. The disconnected committed ATM-CRS Port will be subject to a discontinuance charge as described in (D), below. During the last year of the term commitment period, newly installed ATM-CRS Ports can be ordered as described in (A), above.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.5 ATM-CRS Term Discount Plan (Cont'd)
 - (B) <u>Committed ATM-CRS Port Replacements</u>
 - An ATM-CRS Term Discount Plan customer may disconnect a (4) committed ATM-CRS Port before the end of its existing term commitment period, and replace it with one or more newly installed committed ETS Port(s) added to the customer's existing ETS Term Discount Plan, without the application of a discontinuance charge as described in (D), below, provided: (1) the bandwidth capacity of the replacement committed ETS Port(s) is equal to or greater than the bandwidth capacity of the disconnected committed ATM-CRS Port; (2) the term commitment period remaining in the customer's existing ETS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ATM-CRS Term Discount Plan; (3) the customer commits to retain the replacement committed ETS Port(s) in-service at the same bandwidth capacity for the remainder of the customer's existing ETS Term Discount Plan term commitment period; (4) the replacement committed ETS Port(s) is added to the customer's existing ETS Term Discount Plan term commitment before the last year of an existing term commitment period; and (5) the customer's orders for the disconnection of the originally committed ATM-CRS Port and installation of the replacement committed ETS Port(s) are submitted to the Telephone Company at the same time and include cross references, as described in Section 5.2.7, preceding.

Terms and conditions for the ETS Term Discount Plan are specified in Section 16.3.5, following.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.5 ATM-CRS Term Discount Plan (Cont'd)
 - (C) <u>ATM-CRS Term Discount Replacements</u>
 - (1) The customer may replace an existing ATM-CRS Term Discount Plan in its entirety with a new ATM-CRS Term Discount Plan without the application of a discontinuance charge as described in (D), below, provided: (1) the term commitment period of the new ATM-CRS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ATM-CRS term commitment period and (2) the bandwidth capacity of the committed ATM-CRS Ports under the new ATM-CRS Term Discount Plan meets or exceeds the bandwidth capacity of the committed ATM-CRS Ports in the customer's existing ATM-CRS term commitment period. The term discount percentage applicable for the new ATM-CRS Term Discount Plan will apply on a going forward basis based on the customer's written request to establish a new ATM-CRS Term Discount Plan commitment period under this provision.

For example, a customer with an existing 36 month term commitment period and 30 Mbps of bandwidth capacity for its committed ATM-CRS Ports can replace that term commitment in its entirety with a new 36 month or 60 month term commitment period at any time during the existing term commitment period, without the application of a discontinuance charge provided the bandwidth capacity of the customer's committed ATM-CRS Ports, under the new term commitment period, is at least 30 Mbps.

- (2) When the term commitment period of a replacement ATM-CRS Term Discount Plan does not meet or exceed the number of months remaining in the customer's existing ATM-CRS Term Discount Plan commitment period, a discontinuance charge as described in (D), below, will apply.
- (3) When the term commitment period of the new ATM-CRS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ATM-CRS term commitment period, but the bandwidth capacity of the customer's committed ATM-CRS Ports under the new term commitment period is less than the bandwidth capacity of the committed ATM-CRS Ports under the customer's existing term commitment period, the following provisions will apply.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.5 <u>ATM-CRS Term Discount Plan</u> (Cont'd)
 - (C) <u>ATM-CRS Term Discount Replacements</u> (Cont'd)
 - (3) (Cont'd)
 - (a) When the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports to be included in the customer's replacement ATM-CRS Term Discount Plan is equal to or greater than the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports included in the customer's existing ATM-CRS Term Discount Plan, the customer will be permitted to replace its existing ATM-CRS Term Discount Plan without the application of either a discontinuance charge, as described in (D), below, or a commitment shortfall charge, as described in (b), below.
 - (b) When the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports to be included in the customer's replacement ATM-CRS Term Discount Plan is less than the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports included in the customer's existing ATM-CRS Term Discount Plan, the customer will be permitted to replace its existing ATM-CRS Term Discount Plan under this provision, however, a commitment shortfall charge will apply. The commitment shortfall charge will apply in lieu of a discontinuance charge, as described in (D), below, and will be calculated as follows:
 - Step 1: Determine the difference between the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports included in the customer's existing ATM-CRS Term Discount Plan and the total monthly undiscounted charges for the number and type of committed ATM-CRS Ports to be included in the customer's replacement ATM-CRS Term Discount Plan.

- 16. Public Packet Data Network (Cont'd)
 - 16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)
 - 16.2.5 ATM-CRS Term Discount Plan (Cont'd)
 - (C) <u>ATM-CRS Term Discount Replacements</u> (Cont'd)
 - (3) (Cont'd)
 - (b) (Cont'd)

Step 2: Multiply the result from Step 1 by 35%.

<u>Step 3:</u> Multiply the result from Step 2 times the number of months remaining in the existing term commitment period.

For example, a customer elects to replace its existing 36 month ATM-CRS Term Discount Plan in its entirety in the 30th month of the existing term commitment period, with a new 36 month ATM-CRS Term Discount Plan. The existing term plan commitment includes a total bandwidth capacity requirement of 134.208 Mbps for the customer's three 44.736 Mbps committed ATM-CRS Basic UNI Ports. In the replacement ATM-CRS Term Discount Plan, the customer will only be including one 100 Mbps committed ATM-CRS Ethernet-based UNI Although the customer satisfies the term Port. commitment length replacement requirement with the new ATM-CRS Term Discount Plan, it does not satisfy the bandwidth capacity replacement requirement and the total monthly undiscounted charges under the new term commitment period are less than the total monthly undiscounted charges under the existing commitment period.

Using illustrative undiscounted monthly rates of \$2,485.16 for a 44.736 Mbps ATM-CRS Basic UNI Port and \$982.38 for a 100 Mbps ATM-CRS Ethernet-based UNI Port, the Telephone Company would bill the customer a commitment shortfall charge totaling \$13,593.54 based on:

<u>Step 1</u>: \$7,455.48 (i.e., \$2,485.16 x 3 ports) - \$982.38 = $\frac{473}{10}$

\$6,473.10,

<u>Step 2</u>: $$6,473.10 \times 35\% = $2,265.59$, and <u>Step 3</u>: $$2,265.59 \times 6 \text{ months} = $13,593.54$.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.5 ATM-CRS Term Discount Plan (Cont'd)

(C) <u>ATM-CRS Term Discount Replacements</u> (Cont'd)

(4) The customer may replace an existing ATM-CRS Term Discount Plan in its entirety with a new ETS Term Discount Plan without the application of a discontinuance charge, as described in (D), below, provided: (1) the term commitment period of the new ETS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ATM-CRS term commitment period and (2) the bandwidth capacity of the committed ETS Ports under the new ETS Term Discount Plan meets or exceeds the bandwidth capacity of the committed ATM-CRS Ports in the customer's existing ATM-CRS term commitment period. The term discount percentage applicable for the new ETS Term Discount Plan will apply on a going forward basis, based on the customer's written request to establish a new ETS Term Discount Plan commitment period under this provision.

When the term commitment period of a replacement ETS Term Discount Plan does not meet or exceed the number of months remaining in the customer's existing ATM-CRS Term Discount Plan commitment period, a discontinuance charge, as described in (D), below, will apply.

Terms and conditions for the ETS Term Discount Plan are specified in Section 16.3.5, following.

(D) Discontinuance Charges

Except as provided for in (B) and (C), above, discontinuance charges will apply when: (1) the customer disconnects a committed ATM-CRS Port prior to the end of the term commitment period; (2) the customer disconnects a committed ATM-CRS Port prior to the end of the term commitment period and the replacement committed ATM-CRS or ETS Port(s) does not satisfy the requirements specified in (B), above; (3) the customer discontinues an existing ATM-CRS Term Discount Plan in its entirety prior to the end of the term commitment period; or (4) the customer replaces an existing ATM-CRS Term Discount Plan with a new ATM-CRS Term Discount Plan, or new ETS Term Discount Plan, that does not satisfy the requirements specified in (C), above.

16. Public Packet Data Network (Cont'd)

16.2 <u>Asynchronous Transfer Mode Cell Relay Access Service</u> (Cont'd)

16.2.5 ATM-CRS Term Discount Plan (Cont'd)

(D) Discontinuance Charges

The discontinuance charge will be equal to 35% of the total undiscounted monthly rate for each committed ATM-CRS Port, included in the customer's ATM-CRS Term Discount Plan, for each month remaining in the unsatisfied term commitment period. Minimum service period charges, as specified in Section 16.2.4(C), preceding, would also apply, if applicable.

The following examples illustrate how the Telephone Company will calculate the applicable discontinuance charge.

Example 1

A customer discontinues its existing ATM-CRS Term Discount Plan in its entirety in the 20th month of a 36 month term commitment period. The customer included three 100 Mbps committed ATM-CRS Ethernet-based UNI Ports when it established its initial term plan commitment.

Using an illustrative undiscounted monthly rate of \$982.38 for a 100 Mbps ATM-CRS Ethernet-based UNI Port, the Telephone Company would bill the customer a term plan discontinuance charge totaling \$16,503.84 (i.e., \$982.38 x 35% x 3 ports x 16 months).

Example 2

A customer disconnects one of the four 10 Mbps committed ATM-CRS Ethernet-based UNI Ports included in its ATM-CRS Term Discount Plan in the 39th month of a 60 month term commitment period. The customer included all four of these ports when it established its initial term plan commitment.

Using an illustrative undiscounted monthly rate of \$689.01 for a 10 Mbps ATM-CRS Ethernet-based UNI Port, the Telephone Company would bill the customer a port discontinuance charge totaling \$5,064.15 (i.e., \$689.01 x 35% x 21 months).

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u>

16.3.1 General

Ethernet Transport Service (ETS) is a high speed data transport service that provides end-to-end transmission using Ethernet packet technology at transport speeds ranging from 2 Mbps to 20 Gbps, where available. ETS is ideal for transport of broadband multimedia traffic (i.e., voice, data and video) using variable length Ethernet packets with the ability to interconnect multiple locations using the Telephone Company's ETS network. Ethernet packets generated by Ethernet-compatible customer premises equipment (CPE) are transmitted using available capacity on shared transmission paths through the Telephone Company's ETS network to a pre-specified destination. The ETS customer may use ETS to: (1) interconnect customer designated premises (CDPs) served by the Telephone Company's ETS network, (2) interconnect with its local area network (LAN) to the Telephone Company's ETS network, and/or (3) interconnect its CDPs to an Ethernet network located outside of the Telephone Company's serving territory.

16.3.2 Service Description

ETS is provided using a combination of ETS Channel Terminations (ETS CTs), ETS Ports, ETS Ethernet Virtual Connections (ETS EVCs), ETS Extended Ethernet Virtual Connections (ETS E-EVCs) and ETS Interconnected Ethernet Virtual Connections (ETS I-EVCs). As described below, ETS may be used in conjunction with Special Access High Capacity DS3 and Synchronous Optical Channel Service OC3 and OC12 Services, as specified in Section 7, preceding, and with DSL Access Services, as specified in Section 8, preceding.

An ETS Port is required to provide the interface into the Telephone Company's ETS network. ETS EVCs establish a shared transmission path between any two ETS Ports on the Telephone Company's ETS network. ETS E-EVCs may be ordered to connect the Telephone Company's ETS network to an adjacent telephone company's Ethernet network. ETS I-EVCs may be ordered to connect the Telephone Company's ETS network to a non-adjacent telephone company's Ethernet network as described in Section 16.3.4(A)(5), below.

The transmission quality of ETS is not guaranteed and is offered to ETS customers at a best effort level. The Telephone Company will attempt to deliver all Ethernet packets received; however, network congestion may result in a loss of Ethernet packets. Transmission speeds using copper facilities, may be affected by distance from the Telephone Company central office and other technical limitations in the Telephone Company's copper network, and are also not guaranteed.

(C)

(x)

(x)

(x)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.2 <u>Service Description</u> (Cont'd)

Service is provided, where available, between CDPs and designated Telephone Company Serving Wire Centers (SWCs). ETS will be furnished where suitable facilities exist, as determined by the Telephone Company. The Telephone Company will identify its ETS-equipped Serving Wire Centers (SWCs) in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Rates and charges for ETS are specified in Section 17.5.3, following. The application of rates and charges for ETS is described later in this section.

16.3.3 Obligation of the Customer

In addition to the regulations described in other sections of this tariff, the following provisions apply to ETS:

- (A) The ETS customer is responsible for providing the Telephone Company with the necessary information to provision ETS, as specified in Section 5.2, preceding.
- (B) The ETS customer is responsible for providing and maintaining all required CPE, which is compatible with ETS and complies with the standards specified in Technical Reference IEEE Standard 802.3-2008, Part 3, Sections 1 through 5.

(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

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16. Public Packet Data Network (Cont'd)

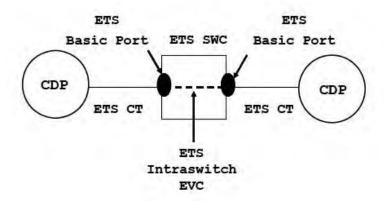
16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations

This section contains the regulations governing the rates and charges that apply for ETS. Regulations governing the rates and charges for Special Access, and DSL Access Services provided under this tariff, used in conjunction with ETS are as specified in Sections 7 and 8, preceding.

The following diagrams depict generic views of the elements of ETS. In the first figure, the ETS customer's CDPs are served by a single ETS SWC. ETS EVCs ordered between two ETS Ports in the same SWC are classified as ETS Intraswitch EVCs. The ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section.

Figure 1



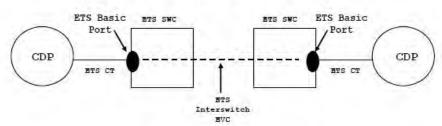
16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

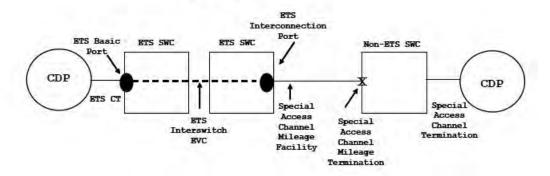
In the second figure, the ETS customer's CDPs are served by different ETS SWCs. ETS EVCs ordered between two ETS Ports in different SWCs are classified as ETS Interswitch EVCs. The ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section.

Figure 2



In the third figure, one of the ETS customer's CDPs is served by a non-ETS SWC. The ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section and the applicable Special Access facilities pursuant to the provisions specified in Section 7, preceding.

Figure 3



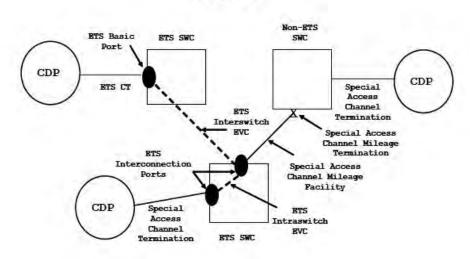
16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

In the fourth figure, a multipoint configuration is depicted where the customer chose to order Special Access Service to an ETS SWC. The ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section and the applicable Special Access facilities pursuant to the provisions specified in Section 7, preceding.

Figure 4



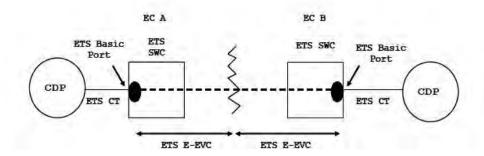
16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

In the fifth figure, one of the ETS customer's CDPs is served by an adjacent telephone company's Ethernet network. The ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section. In addition, the ETS customer will order the applicable Ethernet service elements from the adjacent telephone company.

Figure 5

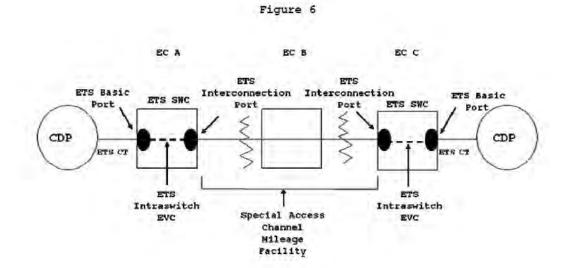


16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

In the sixth figure, one of the ETS customer's CDPs is served by a non-adjacent telephone company's Ethernet network. When the number of airline miles between the ETS SWCs serving the ETS customer's CDPs is greater than seventy-five, the ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section and applicable Special Access facilities pursuant to the provisions specified in Section 7, preceding. In addition, the ETS customer will order the applicable special access service and Ethernet service elements from the interconnecting telephone companies.



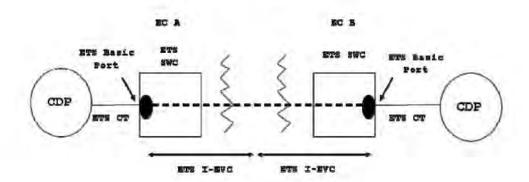
16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

In the seventh figure, one of the ETS customer's CDPs is served by a non-adjacent telephone company's Ethernet network. When the number of airline miles between the ETS SWCs serving the ETS customer's CDPs is equal to or less than seventy-five, the ETS customer orders the applicable ETS elements from the Telephone Company pursuant to the provisions specified in this section. In addition, the ETS customer will order the applicable Ethernet service elements from the non-adjacent telephone company.

Figure 7



16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) <u>Rate Categories</u>

The various ETS service elements are described below.

(1) ETS Channel Terminations (CTs)

An ETS CT provides the transport facility between the customer's designated premises and an ETS Basic Port at the Telephone Company's ETS SWC.

ETS CTs are available at bandwidth speeds ranging from 2 Mbps up to 20 Gbps. The ETS customer orders the type of ETS CT it needs based on its bandwidth requirements. Bandwidth speeds of 50 Mbps and above require use of a fiber loop facility, where such fiber facilities exist. ETS CTs are available only from suitably equipped ETS SWCs for connection to ETS Basic Ports.

A Special Access High Capacity DS3 or Synchronous Optical Channel Service OC3 or OC12 Channel Termination may also be used to connect a CDP to the Telephone Company's ETS SWC for connection to an ETS Interconnection Port. The provisions for Special Access Channel Terminations are specified in Section 7, preceding.

Monthly and nonrecurring charges apply for each ETS CT ordered. The monthly recurring rate and nonrecurring charge are based upon the bandwidth capacity ordered and whether the CDP is located within 300 feet of the ETS SWC or more than 300 feet from the ETS SWC. Rates and charges are specified in Section 17.5.3(A), following.

(C)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (2) <u>ETS Ports</u>

ETS Ports provide the interface at the Telephone Company's ETS SWC for data traffic to and from the customer premises equipment, as well as for connecting the Telephone Company's ETS network with the Ethernet network of another telephone company. An ETS Port receives Ethernet packets from the ETS customer's Ethernet-compatible CPE, validates the addressing parameters contained in the packet headers, and transmits the packets into the ETS network. The ETS Port also receives Ethernet packets from the Telephone Company's ETS network or from an Ethernet network located outside of the Telephone Company's serving territory, validates the addressing parameters contained in the packet headers, and transmits the packets to the pre-designated CDP.

There are two types of ETS Ports available, (i.e., ETS Basic Ports and ETS Interconnection Ports).

(a) ETS Basic Ports provide the interface to the Telephone Company's ETS network and do not include the required transport facility between the CDP and the Telephone Company's ETS SWC.

ETS Basic Ports are available with bandwidth speeds ranging from 2 Mbps up to 20 Gbps. Required transport to the ETS Basic Port is provided using an ETS CT as described above. Each ETS Basic Port must be associated with a minimum of one ETS EVC, one ETS E-EVC, one ETS I-EVC, or one optional DSL Access Service Connection function. An ETS Basic Port may be associated with more than one ETS EVC, ETS E-EVC or ETS I-EVC. The bandwidth speed of an ETS Basic Port must be equal to or greater than the bandwidth speed of the associated ETS CT. The bandwidth speed of an optional DSL Access Service Connection function must be equal to the bandwidth speed of the associated ETS Basic Port.

(C)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (2) ETS Ports (Cont'd)
 - (b) ETS Interconnection Ports also provide the interface to the Telephone Company's ETS network and do not include the required transport facility between the CDP and the Telephone Company's ETS SWC. Used in conjunction with Special Access DS3, OC3 and/or OC12 Services, ETS Interconnection Ports permit the ETS customer to: (1) connect a CDP served by an ETS or non-ETS SWC to the Telephone Company's ETS network, or (2) interconnect the Telephone Company's ETS network to an Ethernet network located in the serving territory of a non-adjacent telephone company.

ETS Interconnection Ports are available at bandwidth speeds of 44.736 Mbps (DS3), 155.52 Mbps (OC3), and 622.08 Mbps (OC12).

Required transport to the ETS Interconnection Port is provided using Special Access DS3, OC3, and/or OC12 Service facilities, as described in Section 7, preceding. Each ETS Interconnection Port must be associated with a minimum of one ETS EVC, one ETS E-EVC, one ETS I-EVC, or one optional DSL Access Service Connection An ETS Interconnection Port may be function. associated with more than one ETS EVC, ETS E-EVC, or ETS I-EVC. The bandwidth speed of an ETS Interconnection Port must be equal to the bandwidth speed of the associated Special Access Service Channel Termination. The bandwidth speed of an optional DSL Access Service Connection function must be equal to the bandwidth speed of the associated ETS Interconnection Port.

Monthly and nonrecurring charges apply for each ETS Port ordered. The monthly recurring rate and nonrecurring charge are determined by the capacity and type of ETS Port ordered. Rates and charges are specified in Section 17.5.3(B), following,

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

ETS Ethernet Virtual Connections (ETS EVCs) (3)

ETS EVCs are logical associations established by the Telephone Company across a shared transmission path that allow the ETS customer to transmit packets between any two ETS Ports located on the Telephone Company's ETS network. ETS EVCs are available in fixed bandwidth amounts ranging from 2 Mbps up to 20 Gbps. The Telephone Company will establish ETS EVCs based upon the bandwidth capacity specified by the ETS customer on its Access Order.

When ETS EVCs are ordered between two ETS Ports in the same SWC, the ETS customer will be charged the ETS Intraswitch EVC rate. When ETS EVCs are ordered between ETS Ports that are in different SWCs, within the Telephone Company's serving territory, the ETS customer will be billed the ETS Interswitch EVC rate.

An ETS customer may choose to order one or more Class of Service (CoS) levels on an existing ETS EVC or when ordering a new ETS EVC.

A CoS level provides priority routing of the ETS customer's traffic through the Telephone Company's network. When the customer orders a CoS level, the Telephone Company will configure its network equipment to recognize and transmit customer traffic according to the user priority value(s) populated by the ETS customer's CPE.

A CoS level is available for use only on an ETS customer's ETS Intraswitch or Interswitch EVC, when provided between two ETS Basic Ports located within the Telephone Company's serving territory.

Effective: January 3, 2023

(C)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (3) ETS Ethernet Virtual Connections (ETS EVCs) (Cont'd)

The CoS levels, available for use with ETS, are as described below:

(a) Real Time Class of Service (RT CoS)

RT CoS supports applications that require minimal delay and low latency to facilitate steady data flow of user information through the ETS network. Examples of applications requiring a RT CoS level may include voice, high quality video, and circuit emulation for higher speed special access services. When ordered by the ETS customer, the Telephone Company's network will transport the customer's traffic across its network to meet the frame delay, inter frame delay variation, and frame loss ratio parameters specified in the following Technical References:

(x)

(x)

- IEEE Standard 802.1D-2004, Sections 7, 9, 17 and Annex G provided the customer's CPE populates the user priority value field with a value of 6, and
 - (x) (x)
- Implementation Agreement MEF 23.1, January (x) 2012, Table 7, Label H, Regional Performance Tier.
 - (x)

When the ETS customer's CPE populates its packets with a user priority value of 6, the Telephone Company will provide the highest level of priority routing, through its network, of those packets up to the RT CoS level bandwidth capacity ordered, before routing any of the ETS customer's other packets received with a user priority value of less than 6.

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ACCESS SERVICE

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (3) <u>ETS Ethernet Virtual Connections (ETS EVCs)</u> (Cont'd)
 - (a) Real Time Class of Service (RT CoS) (Cont'd)

When one or more of the RT CoS performance criteria, specified in the Technical References listed above, is not met, the customer reports the performance failure to the Telephone Company and the performance failure does not result in a service interruption of the customer's ETS, the following provisions will apply in lieu of the credit allowance provisions for service interruptions, specified in Section 2.4.4, preceding.

- No credit will be applied for the performance failure when the Telephone Company restores the customer's service to the required RT CoS performance criteria levels within four hours after receipt of the trouble report from the customer, or when the Telephone Company determines, during its trouble investigation, that the customer's equipment caused the performance failure.
- When the Telephone Company fails to restore the customer's service to the required RT CoS performance criteria levels within four hours after receipt of the trouble report, and the trouble is found to be in the Telephone Company's network, the Telephone Company will provide the customer with a service credit equal to 144/1440 of the undiscounted monthly charges for the impacted ETS EVC(s) and associated RT CoS level(s) for the initial four hour period and for each subsequent fractional four hour period until the performance failure is resolved. The total service credits due under this provision during a single billing month may not exceed the total undiscounted monthly charges for the impacted ETS EVC(s) and associated RT CoS level(s).
- (x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

Transmittal No. 1

Issued: June 16, 2016 Effective: July 1, 2016

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (3) ETS Ethernet Virtual Connections (ETS EVCs) (Cont'd)
 - (b) Near Real Time Class of Service (NRT CoS)

NRT CoS supports applications for which the data flow requires low delay variance and can tolerate some latency in ETS packet transmissions. Examples of applications requiring a NRT CoS level may include priority business applications, multimedia transmissions, and streaming video services. When ordered by the ETS customer, the Telephone Company's network will transport traffic, as described in IEEE 802.1D-2004, Sections 7, 9, 17 and Annex G, provided the ETS customer's CPE populates the user priority value field with a value of 3, 4 or 5.

When the ETS customer's CPE populates its packets with a user priority value of 5, 4, or 3, the Telephone Company will provide priority routing through its network of those packets up to the NRT CoS level bandwidth capacity ordered, before routing any of the ETS customer's other packets received with a user priority value of less than 3.

Unless otherwise requested by the customer and agreed upon by the Telephone Company, NRT CoS level priority routing provides that: (1) packets received with a user priority value of 5 will receive higher priority routing through the Telephone Company's network than packets received with user priority values of 4 or 3, and (2) packets received with a user priority value of 4 will receive higher priority routing through the Telephone Company's network than packets received with a user priority value of 3.

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) <u>Rate Categories</u> (Cont'd)

(3) <u>ETS Ethernet Virtual Connections (ETS EVCs)</u> (Cont'd)

When an ETS customer orders a CoS, it must specify the CoS level(s) needed, the total bandwidth capacity for each CoS level and the associated ETS EVC(s). The ETS customer may order a CoS level to be established at the same time as the associated ETS Intraswitch or Interswitch EVC is established. The ETS customer may also order a CoS level to be added to an existing associated ETS Intraswitch or Interswitch EVC.

An ETS customer may order multiple CoS levels for use on the same ETS EVC. The total bandwidth capacity ordered, for all CoS levels associated with a single ETS EVC, cannot exceed the bandwidth capacity of the ETS EVC. For example, an ETS customer, with a 500 Mbps ETS Interswitch EVC between two 500 Mbps ETS Basic Ports, could order 300 Mbps of NRT CoS and 200 Mbps of RT CoS.

The ETS customer's traffic will receive priority routing treatment up to the available bandwidth capacity of the CoS level ordered. Any ETS customer traffic received by the Telephone Company's network, beyond the available bandwidth capacity of the CoS level(s) ordered, will be transported by the Telephone Company's network at best effort.

If an ETS customer orders a CoS level with a bandwidth capacity that is less than the total bandwidth capacity of the associated ETS EVC, the remaining non-assigned capacity will be transported by the Telephone Company's network at best effort. For example, an ETS customer, with a 100 Mbps ETS Interswitch EVC between two 100 Mbps ETS Basic Ports, orders 70 Mbps of NRT CoS. If the ETS customer's CPE populates the user priority value field with a value of 3 and transmits at the full capacity of the ETS EVC, the Telephone Company's network would transport 70 Mbps of the ETS customer's traffic using NRT CoS routing treatment, and the remaining non-assigned 30 Mbps at best effort.

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(3) <u>ETS Ethernet Virtual Connections (ETS EVCs)</u> (Cont'd)

The total bandwidth capacity of all CoS levels associated with one or more ETS EVCs connected to the same ETS Basic Port may not exceed the total bandwidth capacity available on that ETS Basic Port.

When a CoS level has been established on an associated ETS EVC and the user priority value field is populated with a value that is equal to or less than the CoS level ordered, the Telephone Company's network will transport the ETS customer's traffic using the user priority value populated. For example, if an ETS customer has a 250 Mbps ETS Intraswitch EVC, orders 100 Mbps of RT CoS (i.e., associated with user priority value of 6) and transmits 250 Mbps of traffic with a user priority value of 3 populated (i.e., NRT CoS), the Telephone Company's network would transport 100 Mbps of the ETS customer's traffic using NRT CoS routing treatment, and the remaining non-assigned 150 Mbps at best effort.

When a CoS level has been established on an associated ETS EVC and the user priority value field is populated with a value greater than the CoS level ordered, the Telephone Company's network will transport the ETS customer's traffic using the user priority value of the CoS level ordered. For example, if an ETS customer has a 250 Mbps ETS Intraswitch EVC, orders 100 Mbps of NRT CoS (i.e., associated with user priority value 3, 4 or 5) and transmits 250 Mbps of traffic with a user priority value of 6 populated (i.e., RT CoS), the Telephone Company's network would transport 100 Mbps of the ETS customer's traffic using NRT CoS routing treatment, and the remaining non-assigned 150 Mbps at best effort.

When a CoS level has been established on an associated ETS EVC and the user priority value field is <u>not populated</u>, the Telephone Company's network will transport the ETS customer's traffic at best effort.

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(3) ETS Ethernet Virtual Connections (ETS EVCs) (Cont'd)

When a CoS level has not been ordered for use on an associated ETS EVC, the Telephone Company's network will transport the ETS customer's traffic, that transits the ETS EVC, at best effort.

Monthly and nonrecurring charges apply for each ETS EVC ordered. The monthly recurring rate and nonrecurring charge are based upon the bandwidth capacity ordered and whether the associated ETS Ports are located within one SWC (Intraswitch) or between different SWCs (Interswitch). Rates and charges are specified in Section 17.5.3(C), following.

A monthly recurring charge applies based on the total bandwidth capacity of each CoS level ordered and the type (i.e., Intraswitch or Interswitch) and bandwidth capacity of the associated ETS EVC. The monthly recurring charge is calculated by multiplying the applicable per megabit rate for the specified CoS level, which is based upon the type (i.e., Intraswitch or Interswitch) and bandwidth capacity of the associated ETS EVC, by the number of megabits ordered. Rates are specified in Section 17.5.3(C)(1) and (2), following.

As an example, an ETS customer with a single 100 Mbps ETS Interswitch EVC between two 100 Mbps ETS Basic Ports, orders a total of 30 Mbps of NRT CoS. The monthly charge would be calculated by multiplying the per megabit rate for the NRT CoS level for the associated 100 Mbps ETS Interswitch EVC by 30. The monthly recurring charge for the CoS level in this example would apply in addition to the monthly recurring charges for the 100 Mbps ETS Interswitch EVC and two 100 Mbps ETS Basic Ports.

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) <u>Rate Categories</u> (Cont'd)

(3) <u>ETS Ethernet Virtual Connections (ETS EVCs)</u> (Cont'd)

An Access Order Charge applies to establish the initial CoS level on an existing ETS EVC. Only one Access Order Charge would apply to establish multiple CoS levels on an existing ETS EVC, with no existing CoS level, on the same access order. An Access Order Charge does not apply to make CoS level changes on an existing ETS EVC that has at least one CoS level already established.

The ETS Design Change Charge will apply per ETS EVC, as described in Section 16.3.4(B)(2)(d), below, when an ETS customer elects to make one or more of the following changes on an existing ETS EVC that has at least one CoS level already established: (1) changing the bandwidth capacity of an existing CoS level; (2) adding an additional CoS level; (3) replacing one type of CoS level with another type of CoS level; or (4) removing an existing CoS level from the associated ETS EVC.

(4) ETS Extended Ethernet Virtual Connections (ETS E-EVCS)

ETS E-EVCs are logical associations established by the Telephone Company across a shared transmission path that allow the ETS customer to transmit packets to and receive packets from an ETS Port located in the Telephone Company's ETS network to another telephone company's Ethernet network located in an adjacent serving territory. ETS E-EVCs can be established between two ETS Basic Ports, between two ETS Interconnection Ports, or between an ETS Basic Port and an ETS Interconnection Port. ETS E-EVCs are available in fixed bandwidth amounts ranging from 2 Mbps up to 20 Gbps. The Telephone Company will establish ETS E-EVCs based upon the bandwidth capacity specified by the ETS customer on its Access Order.

Monthly and nonrecurring charges apply for each ETS E-EVC ordered. The monthly recurring rate and nonrecurring charge are based upon the bandwidth capacity of the ETS E-EVC ordered. Rates and charges are specified in Section 17.5.3(D), following.

(C)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (5) ETS Interconnected Ethernet Virtual Connections (ETS I-EVCS)

ETS I-EVCs are logical associations established by the Telephone Company across a shared transmission path that allow the ETS customer to transmit packets to and receive packets from an ETS Port located in the Telephone Company's ETS network to another telephone company's Ethernet network located in a non-adjacent serving territory. ETS I-EVCs can only be used when the airline distance between the ETS SWCs serving the ETS customer's CDPs is seventy-five miles or less. When the airline distance is greater than seventy-five miles, the ETS customer will use a combination of ETS elements and Special Access Service elements, as depicted in Figure 6, above, to connect to its CDP in the non-adjacent serving territory. The Telephone Company will determine the airline distance between the ETS SWCs using the V&H Coordinates method, as described in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

(x) (x)

ETS I-EVCs can be established between two ETS Basic Ports, between two ETS Interconnection Ports, or between an ETS Basic Port and an ETS Interconnection Port. ETS I-EVCs are available in fixed bandwidth amounts ranging from 2 Mbps up to 20 Gbps. The Telephone Company will establish ETS I-EVCs based upon the bandwidth capacity specified by the ETS customer on its Access Order.

(C)

Monthly and nonrecurring charges apply for each ETS I-EVC based upon the bandwidth capacity ordered by the ETS customer and whether the airline distance between the ETS SWCs serving the ETS customer's CDPs is: (1) less than or equal to fifty miles or (2) between fifty-one and seventy-five miles. Rates and charges are specified in Section 17.5.3(E), following.

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (6) Optional Features and Functions
 - (a) <u>DSL Access Service Connection</u>

Where available, ETS Basic or Interconnection Ports may be equipped with the DSL Access Service Connection function. The function provides for the interconnection of ETS with ADSL Access Service, as described in Section 8.1, preceding, and with SDSL Access Service, as described in Section 8.2, preceding, provided by the Telephone Company under this tariff. The function also provides for the interconnection of ETS with a wireline broadband Internet transmission service provided on a non-tariffed, common carrier basis. This optional function allows the ETS customer to receive ADSL, SDSL, and/or wireline broadband Internet transmission service data traffic from and transmit ADSL, SDSL, and/or wireline broadband Internet transmission service data traffic to its end user customers.

The speed of the DSL Access Service Connection function ordered by the ETS customer must equal the speed of the associated ETS Port.

As described in Sections 8.1 and 8.2, preceding, the DSL Access Service Connection Point may be located within the serving territory of the Telephone Company, or in the serving territory of another telephone company when used in conjunction with ETS.

The availability of the DSL Access Service Connection function is designated by the Telephone Company in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

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A nonrecurring charge applies per port to equip the ETS Port with the DSL Access Service Connection function, as specified in Section 17.5.3(F)(1), following.

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Issued: June 16, 2016 Effective: July 1, 2016

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (a) <u>DSL Access Service Connection</u> (Cont'd)
 - (i) Where suitable facilities exist, an ETS customer may also order an ETS MultiMedia Virtual Circuit Channel (ETS MM-VCC), available in 10 Mbps increments of bandwidth capacity, between its CDP and the premises of its end user customer. There are two types of ETS MM-VCCs available: (1) One-Way ETS MM-VCC and (2) Two-Way ETS MM-VCC.

The One-Way ETS MM-VCC enables the ETS customer to send high speed multimedia transmissions to its end user customer's premises, provided such end user customer's premises is equipped with ADSL Access Service provided by the Telephone Company under this tariff as described in Section 8.1, preceding. One-Way ETS MM-VCCs are only available when the ETS customer's CDP, the ETS customer's end user customer's premises and the Telephone Company's DSL Access Service Connection Point SWC are all located within the serving territory of the Telephone Company. The total transmission capacity for any ADSL Access Service line using the One-Way ETS MM-VCC option may not exceed 1 Gbps.



- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (a) (i) <u>DSL Access Service Connection</u> (Cont'd)

The Two-Way ETS MM-VCC enables the ETS customer to send to and receive from its end user customer's premises high speed multimedia transmissions, provided such end user customer's premises is equipped with ADSL or SDSL Access Service provided by the Telephone Company under this tariff as described in Sections 8.1 and 8.2, preceding. Two-Way ETS MM-VCCs are only available when the ETS customer's CDP, the ETS customer's end user customer's premises and the Telephone Company's DSL Access Service Connection Point SWC are all located within the serving territory of the Telephone Company. The total transmission capacity for any ADSL or SDSL Access Service line using the Two-Way ETS MM-VCC option may not exceed 1 Gbps.

ETS MM-VCCs do not increase the bandwidth capacity of ETS CTs, ETS Ports, ETS EVCs and/or Special Access Service Channel Terminations, Channel Mileage Facility and Channel Mileage Terminations used by the ETS customer to connect its CDP to the DSL Access Service Connection Point SWC.

Transmission speed across the ETS MM-VCC is not guaranteed and may be affected by factors that affect the actual speeds delivered, including the ADSL or SDSL Access Service customer's distance from the Telephone Company SWC, condition of the facilities, and any capacity limitations in the ETS customer's network design.

(C)

16. Public Packet Data Network (Cont'd)

(N)

- 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (a) (i) <u>DSL Access Service Connection</u> (Cont'd)

At each premises at which the ETS customer wants to order an ETS MM-VCC, the ETS customer must specify on its Access Order: (1) its end user customer's premises location; (2) the type of ETS MM-VCC (i.e., one-way or two-way); and (3) the total number of 10 Mbps bandwidth capacity increments required to that location. For example, an ETS customer requires an additional 40 Mbps of bandwidth capacity to one of its SDSL end user customers to send and receive high speed multimedia transmissions. On its Access Order to the Telephone Company, the ETS customer would specify the end user customer's premises address and order one Two-Way ETS MM-VCC made up of four 10 Mbps increments.

In the above example, the Telephone Company would bill the ETS customer for one ETS MM-VCC nonrecurring charge. The monthly recurring rate for this Two-Way ETS MM-VCC would be calculated at four times the two-way 10 Mbps increment rate.

Monthly and nonrecurring charges apply to each ETS MM-VCC established by the Telephone Company. As specified in Section 5.4.1, preceding, an Access Order Charge does not apply to establish an ETS MM-VCC. The ETS customer may order multiple ETS MM-VCCs to multiple end users' locations on a single Access Order. The applicable nonrecurring charge for each ETS MM-VCC established would apply. The ETS MM-VCC charges apply in addition to the nonrecurring charge for equipping the ETS Port with the DSL Access Service Connection function. Rates and charges are specified in Section 17.5.3(F)(1)(c), following.

Transmittal No. 4

(N)

Issued: June 16, 2017

Effective: July 1, 2017

16. Public Packet Data Network (Cont'd)

(N)

- 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (a) (i) DSL Access Service Connection (Cont'd)

The Telephone Company will waive the ETS MM-VCC monthly rate when the local exchange telephone service, ADSL or SDSL Access Service and ETS MM-VCC are provided from the same serving wire center where the Telephone Company has located its DSL Access Service Connection Point. The ETS MM-VCC nonrecurring charge will apply.

When an ETS customer elects to change the bandwidth capacity of an existing ETS MM-VCC, remove an existing ETS MM-VCC from its associated ADSL or SDSL Access Service line, or convert from a One-Way ETS MM-VCC to a Two-Way ETS MM-VCC or vice versa, the ETS MM-VCC nonrecurring charge will not apply. In lieu of such charge, the ETS Design Change Charge will apply, as described in Section 16.3.4(B)(2)(d), following.

When an ETS customer disconnects an ETS MM-VCC and the associated ADSL or SDSL Access Service line at the same time, neither the ETS MM-VCC nonrecurring charge nor the ETS Design Change Charge will apply.

(N)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (b) <u>ETS Port Protection</u>

Where suitable facilities exist, an ETS customer that requires stand-by capability between an ETS Basic Port at the Telephone Company's ETS SWC and its CDP may order the ETS Port Protection feature.

This feature establishes a stand-by ETS Basic Port, associated stand-by ETS CT, and dedicated capacity to be activated should a failure occur in the Primary ETS Basic Port at the Telephone Company's ETS SWC, or associated ETS CT between the CDP and the ETS SWC. The ETS switch will automatically redirect the ETS customer's traffic to the stand-by ETS Basic Port and associated stand-by ETS CT, as well as to any EVC(s) (i.e., Intraswitch, Interswitch, Extended, Interconnected), assigned CoS levels, and, if applicable, the DSL Access Service Connection function, ETS MM-VCCs associated with the Primary ETS Basic Port. When ordered by the ETS customer, the Telephone Company's network will redirect traffic as described in IEEE 802.1D-2004, Section 17.

For purposes of this section, the Primary ETS Basic Port is the ETS Basic Port on which the customer orders the establishment of the ETS Port Protection feature. The stand-by ETS Basic Port provides the same functionality and bandwidth capacity as the Primary ETS Basic Port. The stand-by ETS CT provides the same functionality and bandwidth capacity as the associated ETS CT for the Primary ETS Basic Port.

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (b) <u>ETS Port Protection</u> (Cont'd)

In addition to any applicable Access Order Charges specified in Section 5.4.1, preceding, monthly and nonrecurring charges apply for each ETS Port Protection feature established on an existing or new Primary ETS Basic Port. The monthly and nonrecurring charges are based upon the bandwidth capacity of the Primary ETS Basic Port and whether the CDP is located within 300 feet of the ETS SWC or more than 300 feet from the ETS SWC.

Rates and charges are specified in Section 17.5.3(F)(3), following.

The ETS customer specifies on the order the Primary ETS Basic Port on which the ETS Port Protection feature is to be established. An Access Order Charge, per order, applies to establish the ETS Port Protection feature. When the ETS customer orders the ETS Port Protection feature at the same time as it orders the associated Primary ETS Basic Port, the Access Order Charge will not apply. The ETS customer may order the ETS Port Protection feature for multiple Primary ETS Basic Ports on a single Access Order, in which case only one Access Order Charge would apply for that order, in addition to the applicable ETS Port Protection nonrecurring charge for each feature established on each Primary ETS Basic Port.

The ETS Port Protection feature will automatically be discontinued when the associated Primary ETS Basic Port is disconnected. Neither the ETS Port Protection nonrecurring charge, nor the Access Order Charge applies for the discontinuance of the ETS Port Protection feature.

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(A) <u>Rate Categories</u> (Cont'd)

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

(b) <u>ETS Port Protection</u> (Cont'd)

When the ETS customer elects to increase the bandwidth capacity on an existing ETS Basic Port, equipped with the ETS Port Protection feature, the ETS Design Change Charge, as described in Section 16.3.4(B)(2)(d), following, will apply per ETS Port Protection feature, in lieu of the ETS Port Protection nonrecurring charge.

(c) ETS Bandwidth Add-On (ETS BAO)

Where suitable facilities exist, an ETS customer that requires additional bandwidth capacity may order the ETS Bandwidth Add-On (ETS BAO) feature. This optional feature enables the ETS customer to order additional bandwidth capacity in 10 Mbps or 500 Mbps increments to be added to ETS Basic Ports, ETS CTs, ETS EVCs, ETS E-EVCs, and ETS I-EVCs.

The ETS BAO 10 Mbps increment is available for speed options ranging from 50 Mbps up to 900 Mbps. The maximum speed possible using 10 Mbps increments is 1 Gbps.

The ETS BAO 500 Mbps increment is available for speed options ranging from 1 Gbps up to 5 Gbps. The maximum speed possible using the 500 Mbps increments in 10 Gbps.

The ETS BAO feature is only available on the above listed ETS rate elements and speed options when provided within the serving territory of the Telephone Company.

Certain material formerly found on this page now appears on Original Page 16-69.1

Transmittal No. 17

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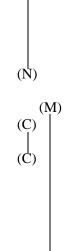
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- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (c) <u>ETS Bandwidth Add-On (ETS BAO)</u> (Cont'd)

For each ETS BAO feature, the ETS customer may order one 10 Mbps increment, one 500 Mbps increment, multiple 10 Mbps increments or multiple 500 Mbps increments. The ETS BAO feature may be added to an eligible ETS rate element at the same time the underlying ETS rate element is initially installed, or subsequently added to an existing ETS rate element. An ETS BAO feature would be ordered for each eligible ETS rate element and speed option combination, based upon the ETS customer's bandwidth needs.



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- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) <u>Rate Categories</u> (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (c) <u>ETS Bandwidth Add-On (ETS BAO)</u> (Cont'd)

When an ETS BAO feature is added at the same time as the underlying ETS rate element is initially installed, an Access Order Charge, and nonrecurring charge associated with the underlying ETS rate element would apply. When an ETS BAO feature is subsequently added to an existing ETS rate element, an ETS Design Change Charge would apply per ETS BAO feature established by the Telephone Company, as described in Section 16.3.4(B)(2)(d), below.

When ordering an ETS BAO feature, the ETS customer must specify on its Access Order: (1) each eligible ETS rate element and speed option combination to be supplemented using the ETS BAO feature, and (2) the total number of 10 Mbps or 500 Mbps increments to be included in each ETS BAO feature. For example, an ETS customer requires an additional 20 Mbps of bandwidth capacity on its existing 50 Mbps ETS Interswitch EVC. On its Access Order to the Telephone Company, the ETS customer would identify the ETS Basic Ports between which the existing 50 Mbps ETS Interswitch EVC exists, and order one ETS BAO feature made up of two 10 Mbps increments for that ETS EVC.

In addition to the applicable monthly charge for the underlying ETS rate element, a monthly charge applies for each ETS BAO feature established by the Telephone Company. The monthly charge is based upon the total number of 10 Mbps or 500 Mbps increments included in each ETS BAO feature ordered by the ETS customer.

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Transmittal No. 17

Issued: December 18, 2018

- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - (6) Optional Features and Functions (Cont'd)
 - (c) <u>ETS Bandwidth Add-On (ETS BAO)</u> (Cont'd)

For example, an ETS customer orders two ETS BAO features to provide an additional 1 Gbps of bandwidth capacity on its existing 1 Gbps ETS Basic Port and associated 1 Gbps ETS CT. In addition to the monthly charges for the underlying 1 Gbps ETS Basic Port and associated 1 Gbps ETS CT, the Telephone Company would bill the ETS customer one ETS BAO feature monthly charge equal to two times the 500 Mbps increment ETS BAO feature ETS Basic Port rate and a second ETS BAO feature monthly charge equal to two times the 500 Mbps increment ETS BAO feature ETS CT rate. The ETS customer would also be billed two ETS Design Change Charges for the two ETS BAO features established by the Telephone Company, since the two ETS BAO features were being added to existing ETS rate elements.

When an ETS customer adds an ETS BAO feature to an eligible ETS Basic Port equipped with the DSL Access Service Connection function and/or ETS Port Protection feature, the bandwidth capacity of the associated DSL Access Service Connection function and/or ETS Port Protection feature will be automatically supplemented by the bandwidth capacity ordered in the ETS BAO feature added to the underlying ETS Basic Port. The Telephone Company will only bill the ETS customer for the ETS BAO feature associated with the underlying ETS Basic Port.

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ACCESS SERVICE

- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (A) Rate Categories (Cont'd)
 - Optional Features and Functions (Cont'd) (6)
 - (c) ETS Bandwidth Add-On (ETS BAO) (Cont'd)

As specified in Sections 16.3.5 and 16.3.6, following, the ETS BAO feature is eligible for an ETS Term Discount Plan or ETS Port Term Discount Plan discount when the ETS BAO feature's underlying ETS rate element is associated with a committed ETS Port. Bandwidth capacity added to an eligible ETS Basic Port committed under the ETS Term Discount Plan or ETS Port Term Discount Plan, using the ETS BAO feature, does not change the ETS customer's term plan commitment on the originally committed ETS Basic Port.

When an ETS customer elects to change the bandwidth capacity of an existing ETS BAO feature, or remove an existing ETS BAO feature from its underlying ETS rate element, an ETS Design Change Charge will apply, as described in Section 16.3.4(B)(2)(d), below. When an ETS customer disconnects an underlying ETS rate element equipped with an ETS BAO feature, the ETS BAO feature is automatically disconnected and neither an Access Order Charge, nor an ETS Design Change Charge, will apply for the disconnected ETS rate elements.

Rates and charges are specified in Section 17.5.3(F)(4), following,

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Partner – Communications and Media Practice

Issued: December 18, 2017

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(B) Types of Rates and Charges

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described below:

Monthly Rates (1)

Monthly rates are recurring rates that apply each month, or fraction thereof, when an ETS service element is provided. For billing purposes, each month is considered to have 30 days.

Nonrecurring Charges (2)

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for ETS are installation of service, service rearrangements, moves, and design changes.

Except as specified below, these charges are in addition to the Access Order Charge, as specified in Section 17.4.1, following.

(a) Installation of Service

Nonrecurring charges apply for installation of ETS CTs, ETS Ports, ETS EVCs, ETS E-EVCs, ETS I-EVCs and ETS Optional Features and Functions ordered by the ETS customer.

(b) Service Rearrangements

Service rearrangements are changes to existing (i.e., installed) services, which may be administrative only in nature, as set forth below, or that involve an actual physical change to the service.

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (b) <u>Service Rearrangements</u> (Cont'd)

When the ETS customer elects to replace an existing ETS Port or ETS CT with a new ETS Port or ETS CT, with a lower bandwidth capacity element than the existing ETS element being replaced, the request will be considered a discontinuance of service for the former capacity, and start of service for the new capacity. Associated nonrecurring (i.e., installation) charges will apply, including any nonrecurring charges for optional features and functions, if applicable. New minimum period requirements will be established for the new ETS elements. The ETS customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued ETS elements.

When the ETS customer elects to replace an existing ETS Port or ETS CT with a new ETS Port or ETS CT with a higher bandwidth capacity element than the existing ETS element being replaced, the ETS Design Change Charge described in (d), below, will apply per new ETS element. New minimum period requirements will be established for the higher capacity ETS elements. Any outstanding minimum period charges associated with the lower capacity ETS elements being replaced, that would otherwise be applicable, as described in this paragraph, will be waived. Nonrecurring charges will also be waived.

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (b) <u>Service Rearrangements</u> (Cont'd)

When the ETS customer elects to replace an existing ETS Basic Port equipped with the ETS Port Protection feature, with a new ETS Basic Port equipped with the ETS Port Protection feature with a higher bandwidth capacity than the existing ETS Basic Port being replaced, an ETS Design Change Charge, as described in (d), below, will apply for the new ETS Basic Port, as described in the preceding paragraph, and a second ETS Design Change Charge will apply per ETS Basic Port Protection feature, in lieu of the ETS Port Protection nonrecurring charge.

For example, if an ETS customer elected to replace its existing 50 Mbps ETS CT and 50 Mbps ETS Basic Port equipped with the ETS Port Protection feature, with a new 100 Mbps ETS CT and 100 Mbps ETS Basic Port equipped with the ETS Port Protection feature, three ETS Design Change Charges would apply.

When the ETS customer elects to replace an existing ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC with a new higher or lower bandwidth capacity ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC respectively, the ETS Design Change Charge, as described in (d), below, will apply per ETS element changed.

When the ETS customer elects to remove existing ETS EVCs, ETS E-EVCs, and/or ETS I-EVCs, the ETS Design Change Charge, as described in (d), below, will apply per ETS EVC, ETS E-EVC, or ETS I-EVC removed.

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (b) <u>Service Rearrangements</u> (Cont'd)

The ETS Design Change Charge will apply per ETS EVC, as described in (d), below, when an ETS customer elects to make one or more of the following changes on an existing ETS EVC that has at least one CoS level already established: (1) changing the bandwidth capacity of an existing CoS level; (2) adding an additional CoS level; (3) replacing one type of CoS level with another type of CoS level; or (4) removing an existing CoS level from the associated ETS EVC. Only one ETS Design Change Charge will apply when more than one of the above changes is made to the same associated ETS EVC at the same time on the same access order.

When the ETS customer elects to install an ETS BAO feature on an existing qualifying ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, and/or ETS I-EVC, as described in Section 16.3.4(A)(6)(c), preceding, the ETS Design Change Charge, as described in (d), below, will apply per ETS BAO feature established.

When the ETS customer elects to increase or decrease the bandwidth capacity on an existing ETS BAO feature associated with an underlying ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, and/or ETS I-EVC, the ETS Design Change Charge, as described in (d), below, will apply per ETS BAO feature changed.

When the ETS customer elects to remove an existing ETS BAO feature from its underlying ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, and/or ETS I-EVC, the ETS Design Change Charge, as described in (d), below, will apply per ETS BAO feature removed.

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

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

(2) <u>Nonrecurring Charges</u> (Cont'd)

(b) <u>Service Rearrangements</u> (Cont'd)

When the ETS customer elects to remove an existing ETS MM-VCC from its associated ADSL or SDSL Access Service line, the ETS Design Change Charge described in (d), below, will apply per ETS MM-VCC removed.

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

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

(c) Moves

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

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

The charges for moving ETS elements are dependent on whether the move is to a different location within the same building, to a different building within the same SWC, or to a different building in a different SWC. The charges, specified below, apply in addition to any applicable charges for moving any applicable Special Access Services, as specified in Section 7.2.3, preceding.

Transmittal No. 4

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Effective: July 1, 2017

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (c) Moves (Cont'd)
 - (i) Moves Within the Same Building

ETS Basic and Interconnection Ports, ETS EVCs, ETS E-EVCs, and ETS I-EVCs are not impacted when an ETS customer moves its Point of Termination to a different location within the same building. The charge for moving an ETS CT within the same building will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the ETS CT. There will be no change in the minimum period requirements.

(ii) <u>Moves To A Different Building Within the Same SWC</u>

ETS Basic and Interconnection Ports, ETS EVCs, ETS E-EVCs, and ETS I-EVCs are not impacted when an ETS customer moves its Point of Termination to a different building within the same SWC. The move of an ETS CT will be treated as a discontinuance and start of service. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new services. The ETS customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (c) Moves (Cont'd)
 - (iii) <u>Moves to a Different Building in a Different SWC</u>

A move to a different building in a different SWC will be treated as a discontinuance and start of service of all associated ETS elements. Associated nonrecurring (i.e., installation) charges will apply, including the ETS Port Protection feature nonrecurring charge, if applicable. New minimum period requirements will be established for the new services. The ETS customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

(d) ETS Design Changes

As described in (b), above, the ETS Design Change Charge, specified in Section 17.5.3(F)(2), following, will apply when the ETS customer elects to: (1) replace an existing ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC with a new higher or lower bandwidth capacity ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC, respectively; (2) remove existing ETS EVCs, ETS E-EVCs, or ETS I-EVCs; (3) replace an existing ETS Port or ETS CT with a new ETS Port or ETS CT with a higher bandwidth capacity element than the existing ETS element being replaced; (4) add an ETS BAO feature to an existing ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC; (5) increase or decrease the bandwidth capacity on an existing ETS BAO feature associated with an underlying ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC; or (6) remove an existing ETS BAO feature from its underlying ETS Basic Port, ETS CT, ETS EVC, ETS E-EVC, ETS I-EVC, and/or ETS MM-VCC.

Transmittal No. 4

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

- (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (d) <u>ETS Design Changes</u> (Cont'd)

The ETS Design Change Charge will apply per ETS EVC when the ETS customer elects to: (1) change the bandwidth capacity of an existing CoS level; (2) add an additional CoS level; (3) replace one type of CoS level with another type of CoS level; or (4) remove an existing CoS level from the associated ETS EVC. Only one ETS Design Change Charge will apply, when more than one of the above changes, is made to the same associated ETS EVC at the same time on the same access order.

When applicable, the ETS Design Change Charge applies in lieu of the ETS EVC, ETS E-EVC, ETS I-EVC, or ETS MM-VCC nonrecurring charge.

The Access Order Charge will not apply when the ETS Design Charge Charge is applicable.

(C) <u>Minimum Periods</u>

The minimum period for ETS service elements provided to an ETS customer, and for which charges are applicable, is:

- Twelve months for ETS Basic Ports, ETS Interconnection Ports, ETS Channel Terminations, and
- One month for all other ETS elements.

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(D) <u>Mixed Use</u>

Mixed use refers to a rate applicable when the customer orders Ethernet Transport Service (ETS) between its CDP and an ETS-equipped SWC when the same customer also orders a portion of the available bandwidth capacity on its ETS Basic Port, at that SWC, as Ethernet Switched Access Local Transport (ESALT).

Mixed use is only available at SWCs designated by the Telephone Company in National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4, as being both ETS and ESALT equipped.

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Where suitable facilities exist, mixed use arrangements are available, when provided by the Telephone Company within its serving territory, and when jointly provided by the Telephone Company with another telephone company in an adjacent or non-adjacent serving territory, as described for ESALT in Section 6.1, preceding.

Mixed use arrangements are not available when the customer uses ETS Interconnection Ports and associated Special Access Services. Mixed use arrangements are also not available when jointly provided with another telephone company in a non-adjacent serving territory where the number of miles between the ETS SWC serving the customer's CDP and the ESALT SWC is greater than 75 airline miles.

The initial facilities between the CDP and ETS-equipped SWC will be ordered, provided, and rated as ETS (e.g., including, where applicable based on its configuration, ETS Basic Ports, ETS Channel Terminations, ETS EVCs, optional features, etc.). The nonrecurring charges that apply when these components are installed will be the nonrecurring charges associated with the applicable ETS rate elements, as specified in Section 17.5.3, following.

Rating as ETS will continue until such time as the customer places an order to activate a portion of the available ETS bandwidth capacity for use as ESALT. It is at this point the ETS facilities between the CDP and ETS-equipped SWC become mixed use subject to the following provisions.

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(D) <u>Mixed Use</u> (Cont'd)

As specified in Section 6.1, preceding, ESALT is available in increments of 2 Mbps, 10 Mbps and 50 Mbps. As each 2 Mbps, 10 Mbps or 50 Mbps increment of capacity on the customer's ETS Basic Port is activated for use as ESALT, the monthly rates for the applicable ETS rate elements for the shared mixed use facilities between the ETS/ESALT SWC and the CDP, excluding the monthly rate for the ETS Port Protection feature, will be reduced by a factor reflecting the capacity used for ESALT divided by the total capacity available on the mixed use facilities. The monthly rates for the ETS Port Protection feature, and for other non-shared ETS rate elements, used between the ETS/ESALT SWC and other locations, will not be reduced by this adjustment factor.

For example, the customer orders 10 Mbps on its existing 100 Mbps ETS Basic Port, 100 Mbps ETS Channel Termination, and ETS Port Protection feature, activated for use as ESALT at the ETS/ESALT SWC serving the CDP. In this example, the adjustment factor used would be 10% (i.e., 10 Mbps/100 Mbps), which would be applied to the undiscounted monthly rates for the 100 Mbps ETS Basic Port and the 100 Mbps ETS Channel Termination. This adjustment factor would not be applied to the monthly rate for the ETS Port Protection feature, or to any other non-shared ETS rate elements, ordered by the customer to connect to other locations.

If the ETS monthly charges for the shared mixed use facilities are subject to an ETS Term Discount Plan or ETS Port Term Discount Plan discount, as set forth in Sections 16.3.5 and 16.3.6, following, the ETS monthly charges for the shared ETS facilities will be reduced to reflect mixed use, before any ETS Term Discount Plan or ETS Port Term Discount Plan discount is applied.

Switched Access Service rates and charges, as set forth in Section 17.2, following, will apply for each 2 Mbps, 10 Mbps, or 50 Mbps increment of capacity on the customer's ETS Basic Port activated for use as ESALT. The Switched Access Service monthly rates for the ESALT components activated on shared mixed use ETS facilities will not be reduced to reflect mixed use, and are not subject to any ETS Term Discount Plan discount.

Effective: January 2, 2018

Transmittal No. 8

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.4 Rate Regulations (Cont'd)

(D) Mixed Use (Cont'd)

When the customer orders the activation of capacity, of its existing ETS, for use as ESALT, the customer must provide the information specified in Section 5.2.1(G), preceding, on its order. In addition to the applicable ESALT nonrecurring charges for the service components ordered, an Access Order Charge will apply per order. The customer may order multiple increments of capacity for use as ESALT on the same access order, in which case only one Access Order Charge will apply.

When the customer orders both ETS and ESALT installed at the same ETS/ESALT SWC at the same time, the Telephone Company will waive the Access Order Charge and associated ESALT nonrecurring charges that would otherwise apply for the service components ordered on the ESALT order, provided the customer's ESALT and ETS orders cross reference each other. An Access Order Charge, and associated ETS nonrecurring charges, will apply for the service components ordered on the ETS order.

16.3.5 ETS Term Discount Plan

An optional term discount plan is available for Ethernet Transport Service (ETS). Under the ETS Term Discount Plan (ETS TDP), the monthly rates for eligible ETS service elements are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the term commitment period selected by the ETS customer.

ETS may be ordered at the customer's option on a month-to-month basis, or under a single term commitment period of either 36 months or 60 months as described herein, or under one or more individual ETS Port Term Discount Plans (ETS PTDPs) as described in Section 16.3.6, following.

Certain material formerly found on this page now appears on Original Page 16-83.1.

Transmittal No. 8

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

The customer must notify the Telephone Company, in writing, of the length of its selected term commitment period. For purposes of this plan, all ETS Basic and ETS Interconnection Ports included in a customer's ETS Term Discount Plan are referred to as committed ETS Ports. To be included in an ETS Term Discount Plan, all committed ETS Ports within the Telephone Company's operating territory must be ordered for the same term commitment period (i.e., all 36 months or all 60 months) and remain in-service at the same bandwidth capacity throughout the entire term commitment period. ETS Ports installed after the establishment of the customer's ETS Term Discount Plan, may be ordered on a month-to-month basis, or added as additional committed ETS Ports to a customer's existing ETS TDP term commitment period, as described in (A), below, or ordered under individual ETS PTDPs as described in Section 16.3.6, following.

Access Order Charges, as described in Section 5.4.1, preceding, do not apply to establish a new or make any changes to an existing ETS Term Discount Plan.

Certain material currently found on this page previously appeared on Original Page 16-83.

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

The monthly rates for ETS service elements are set forth in Sections 17.5.3(A) through (F), following. The term discount percentages for the ETS Term Discount Plan are set forth in Section 17.5.3(G), following.

The term discount percentage for the customer's selected term commitment period applies to all committed ETS Ports provided within the Telephone Company's operating territory. The term discount percentage also applies to the following eligible ETS elements when these elements are provided within the Telephone Company's operating territory, and associated with a committed ETS Port: (1) ETS Channel Terminations (ETS CTs); (2) ETS Ethernet Virtual Connections (ETS EVCs) and associated Class of Service (CoS) levels, where applicable; (3) ETS Extended Ethernet Virtual Connections (ETS E-EVCs); (4) ETS Interconnected Ethernet Virtual Connections (ETS I-EVCs); (5) the ETS Bandwidth Add-On (ETS BAO) feature; and (6) the ETS Port Protection feature. Since there are no bandwidth or in-service requirements for ETS CTs, ETS EVCs, ETS E-EVCs, ETS I-EVCs, ETS MM-VCCs, ETS BAO features, and ETS Port Protection features, associated with committed ETS Ports under the ETS Term Discount Plan, customer ordered disconnects of or changes to the number or bandwidth capacities for these elements, do not affect the customer's ETS Term Discount Plan; (7) ETS MultiMedia Virtual Circuit Channels (ETS MM-VCCs).

When an eligible ETS element (i.e., ETS EVCs and associated CoS levels, ETS E-EVCs, ETS I-EVCs, ETS MM-VCCs, ETS LBR-VCCs, and the ETS BAO) is ordered between a committed ETS TDP Port and a committed ETS Port Term Discount Plan (ETS PTDP) Port that have different term commitment lengths (e.g., an ETS TDP Port committed for 60 months and an ETS PTDP Port committed for 36 months), the Telephone Company will apply the discount percentage associated with the longer term commitment length (in this example the 60 month commitment) to such eligible ETS element.

The ETS TDP term discount percentage does not apply to: (1) ETS Ports ordered on a month-to-month basis or committed under an ETS PTDP term commitment; (2) ETS CTs, ETS EVCs and associated CoS levels, where applicable, ETS E-EVCs, ETS I-EVCs, ETS BAO features, and ETS Port Protection features that are not associated with a committed ETS TDP Port; (3) ETS nonrecurring charges; and (4) special access services connected to an ETS Interconnection Port.

Except as specified in (A)-(C), below, discontinuance charges will apply when the customer fails to satisfy the term commitment period or the in-service requirements for its committed ETS Ports.

Certain material formerly found on this page now appears on Original Page 16-84.1.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

The term discount percentage set forth in Section 17.5.3(G), following, will not be subject to Telephone Company initiated decreases during the customer's selected term commitment period.

If a term discount percentage increase occurs during the term of an existing ETS Term Discount Plan, the increased percentage will be applied automatically for the remainder of the customer's existing term commitment period.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

At the end of the term commitment period, the customer may subscribe to a new ETS Term Discount Plan commitment period provided the customer had not previously subscribed to an ETS PTDP, subscribe to individual ETS PTDPs as described in Section 16.3.6, following, or revert to the undiscounted monthly rates and nonrecurring charges specified in Sections 17.5.3(A) through (F), following. If the customer does not notify the Telephone Company, in writing, of its choice by the end of its existing term commitment period, the Telephone Company will automatically convert the customer's ETS billing to the undiscounted monthly rates and nonrecurring charges specified in Sections 17.5.3(A) through (F), following. An Access Order Charge will not apply when a customer, at the end of its existing term commitment period, subscribes to a replacement ETS Term Discount Plan, subscribes to individual ETS PTDPs as described in Section 16.3.6, following, or reverts to month-to-month rates.

(A) <u>ETS Port Additions</u>

An ETS Term Discount Plan customer will choose one of the following options when ordering a new ETS Port during its existing term commitment period:

- (1) Add the new ETS Port to its existing ETS Term Discount Plan provided: (1) the customer commits to retain the newly installed ETS Port in-service at the same bandwidth capacity for the remainder of the existing term commitment period and (2) the ETS Port is being added before the last year of an existing term commitment period. The term commitment period of the customer's existing ETS Term Discount Plan will continue uninterrupted. During the last year of the commitment period, ETS Ports may not be added to an existing ETS TDP term commitment period.
- (2) Order the new ETS Port on a month-to-month basis. No term discount percentage would apply to the newly installed ETS Port. The term commitment period of the customer's existing ETS Term Discount Plan will continue uninterrupted.
- (3) Add the new ETS Port under a new individual ETS PTDP as described in Section 16.3.6 following.
- (4) Replace the existing ETS Term Discount Plan, in its entirety, with a new ETS Term Discount Plan, as described in (C), below, provided the customer had not previously subscribed to an ETS PTDP.

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.5 ETS Term Discount Plan (Cont'd)
 - (B) Committed ETS Port Replacements

An ETS Term Discount Plan customer will choose one of the following options when replacing a committed ETS Port during its existing term commitment period:

(N)

- (1) An ETS Term Discount Plan customer may disconnect a committed ETS Port before the end of its existing term commitment period, and replace it with one or more newly installed committed ETS Port(s) under its existing ETS TDP term commitment without the application of a discontinuance charge as described in (D), below, provided: (1) the bandwidth capacity of the replacement committed ETS Port(s) is equal to or greater than the bandwidth capacity of the disconnected committed ETS Port; (2) the customer commits to retain the replacement committed ETS Port(s) in-service at the same bandwidth capacity for the remainder of the existing term commitment period; (3) the replacement committed ETS Port(s) is added to the existing term commitment before the last year of an existing term commitment period; and (4) the customer's orders for the disconnect of the originally committed ETS Port and installation of the replacement committed ETS Port(s) are submitted to the Telephone Company at the same time and include cross references, as described in Section 5.2.8. preceding.
- (2) If the bandwidth capacity of the newly installed committed ETS Port(s) is less than the bandwidth capacity of the disconnected committed ETS Port, the disconnected committed ETS Port will be subject to a discontinuance charge as described in (D), below. The newly installed port(s) can be added as a committed ETS Port to the existing term commitment period, or ordered on a month-to-month basis as described in (A), above.
- (3) Since newly installed ETS Ports cannot be added to an existing term commitment period during the last year of the commitment period, an existing committed ETS Port disconnected during the last year of the commitment period cannot be replaced as described in (B)(1), above. The disconnected committed ETS Port will be subject to a discontinuance charge as described in (D), below. During the last year of the term commitment period, newly installed ETS Ports can be ordered as described in (A), above.

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

- (B) <u>Committed ETS Port Replacements</u> (Cont'd)
 - (4) An ETS Term Discount Plan customer may disconnect a committed ETS TDP Port before the end of its existing term commitment period and replace it with a newly installed committed ETS PTDP Port under a new 36 or 60 month individual ETS PTDP commitment as described in Section 16.3.6, following. The newly committed replacement ETS PTDP Port may be at any available bandwidth capacity and any location within the Telephone Company's operating territory. The Telephone Company will waive any ETS discontinuance charge as described in (D), below, and any unsatisfied minimum service period charge as described in Section 16.3.4(C), preceding, that may otherwise be applicable provided the customer's orders for the disconnect of the originally committed ETS TDP Port under its ETS TDP term commitment and installation of the newly committed replacement ETS PTDP Port under its new ETS PTDP term commitment are submitted to the Telephone Company at the same time and include cross references as described in Section 5.2.8(C), preceding.

After a committed ETS TDP Port has been disconnected and replaced with a committed ETS PTDP Port any committed ETS Ports remaining in the customer's ETS TDP term commitment may: (1) remain in-service under the ETS TDP until the end of the term commitment period, (2) be disconnected at any time during the ETS TDP term commitment period, or (3) be converted to undiscounted monthly rates and nonrecurring charges.

Once a customer subscribes to an ETS PTDP, it is no longer eligible to subscribe to a new ETS TDP once its existing ETS TDP term commitment period expires.

(5) An ETS Term Discount Plan customer may transfer an in-service committed ETS Port before the end of its existing term commitment period to a new 36 or 60 month individual ETS Port Term Discount Plan. The transferred committed ETS PDTP Port will remain in-service at the same bandwidth capacity and same location as the previously committed ETS TDP Port.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(B) (3) Committed ETS Port Replacements (Cont'd)

An Access Order Charge will not apply to the customer's order for the transfer of the in-service committed ETS TDP Port to an individual ETS PTDP term commitment. The Telephone Company will waive any ETS TDP discontinuance charge as described in (D), below, and any unsatisfied minimum service charge as described in Section 16.3.4(C), preceding, that may otherwise be applicable.

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(N)

- 16. Public Packet Data Network (Cont'd)
 - 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.5 ETS Term Discount Plan (Cont'd)
 - (C) ETS Term Discount Plan Replacements

An ETS Term Discount Plan customer will choose one of the following options when replacing its existing ETS TDP during its existing term commitment period:

(N) | (N)

(1) The customer may replace an existing ETS Term Discount Plan, in its entirety, with a new ETS Term Discount Plan, without the application of a discontinuance charge as described in (D), below, provided: (1) the term commitment period of the new ETS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ETS term commitment period and (2) the bandwidth capacity of the committed ETS Ports under the new ETS Term Discount Plan meets or exceeds the bandwidth capacity of the committed ETS Ports in the customer's existing ETS term commitment period. The term discount percentage applicable for the replacement ETS Term Discount Plan will apply on a going forward basis, based on the customer's written request to establish a new ETS Term Discount Plan commitment period, under this provision.

For example, a customer with an existing 36 month term commitment period and 50 Mbps of bandwidth capacity for its committed ETS Ports, can replace that term commitment in its entirety with a new 36 month or 60 month term commitment period at any time during the existing term commitment period, without the application of a discontinuance charge, provided the bandwidth capacity of the customer's committed ETS Ports under the new term commitment period is at least 50 Mbps.

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When the term commitment period of a replacement ETS Term Discount Plan does not meet or exceed the number of months remaining in the customer's existing ETS Term Discount Plan commitment period, a discontinuance charge, as described in (D), below, will apply.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(C)(1) ETS Term Discount Plan Replacements (Cont'd)

When the term commitment period of the new ETS Term Discount Plan meets or exceeds the number of months remaining in the customer's existing ETS term commitment period, but the bandwidth capacity of the customer's committed ETS Ports, under the new term commitment period, is less than the bandwidth capacity of the committed ETS Ports, under the customer's existing term commitment period, the following provisions will apply.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(a)

(C)(1) ETS Term Discount Plan Replacements (Cont'd)

- When the total monthly undiscounted charges for the number and type of committed ETS Ports, to be included in the customer's replacement ETS Term Discount Plan, is equal to or greater than the total monthly undiscounted charges for the number and type of committed ETS Ports included in the customer's existing ETS Term Discount Plan, the customer will be permitted to replace its existing ETS Term Discount Plan without the application of either a discontinuance charge, as described in (D), below, or a commitment shortfall charge, as described in (b), below.
- (b) When the total monthly undiscounted charges for the number and type of committed ETS Ports, to be included in the customer's replacement ETS Term Discount Plan, is less than the total monthly undiscounted charges for the number and type of committed ETS Ports included in the customer's existing ETS Term Discount Plan, the customer will be permitted to replace its existing ETS Term Discount Plan under this provision, however, a commitment shortfall charge will apply. The commitment shortfall charge will apply in lieu of a discontinuance charge, as described in (D), below, and will be calculated as follows:
 - Step 1: Determine the difference between the total monthly undiscounted charges for the number and type of committed ETS Ports, included in the customer's existing ETS Term Discount Plan, and the total monthly undiscounted charges for the number and type of committed ETS Ports to be included in the customer's replacement ETS Term Discount Plan.
 - Step 2: Multiply the result from Step 1 by 35%.
 - <u>Step 3:</u> Multiply the result from Step 2 times the number of months remaining in the existing term commitment period.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(C)(1) ETS Term Discount Plan Replacements (Cont'd)

(b) (Cont'd)

For example, a customer elects to replace its existing 36 month ETS Term Discount Plan, in its entirety, in the 22nd month of the existing term commitment period, with a new 36 month ETS Term Discount Plan. The existing term plan commitment includes a total bandwidth capacity requirement of 300 Mbps for the customer's six 50 Mbps committed ETS Basic Ports. In the replacement ETS Term Discount Plan, the customer will only be including two 100 Mbps committed ETS Basic Ports, for a total bandwidth capacity of 200 Mbps. Although the customer satisfies the term commitment length replacement requirement with the new ETS Term Discount Plan, it does not satisfy the bandwidth capacity replacement requirement, and the total monthly undiscounted charges, under the new term commitment period, are less than the total monthly undiscounted charges under the existing term commitment period.

Using illustrative undiscounted monthly rates of \$275.00 for a 50 Mbps ETS Basic Port and \$330.00 for a 100 Mbps ETS Basic Port, the Telephone Company would bill the customer a commitment shortfall charge totaling \$4,851.00 based on:

<u>Step 1:</u> \$1,650.00 (i.e., \$275.00 x 6 ports) - \$660.00 (i.e., \$330.00 x 2 ports) = \$990.00

Step 2: $$990.00 \times 35\% = 346.50

Step 3: $\$346.50 \times 14 \text{ months} = \$4,851.00$

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- 16. Public Packet Data Network (Cont'd)
 - 16.3 Ethernet Transport Service (Cont'd)
 - 16.3.5 ETS Term Discount Plan (Cont'd)
 - (C) <u>ETS Term Discount Plan Replacements</u> (Cont'd)
 - The customer may discontinue its existing ETS TDP in its (2) entirety at any time during the term commitment period and replace it with one or more individual ETS PTDPs under new 36 and/or 60 month term commitment periods as described in Section 16.3.6, following. The replacement committed ETS PTDP Ports may be at any available bandwidth capacity and any location within the Telephone Company's operating territory. Any committed ETS TDP Ports not transferred to individual ETS PTDPs will be disconnected. The Telephone Company will waive any ETS TDP discontinuance charges as described in (D), below, and any unsatisfied minimum service period charges as described in Section 16.3.4(C), preceding, that may otherwise be applicable provided the customer's orders for the discontinuance of the ETS TDP (including the disposition of each committed ETS TDP Port) and the replacement ETS PTDPs are submitted to the Telephone Company at the same time and include cross references as described in Section 5.2.8(D), preceding.

Once the customer replaces its existing ETS TDP with one or more replacement ETS PTDPs, it is no longer eligible to subscribe to a new ETS TDP.

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16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

Discontinuance Charges (D)

Except as provided for in (B) and (C), above, discontinuance charges will apply when: (1) the customer disconnects a committed ETS Port prior to the end of the term commitment period; (2) the customer disconnects a committed ETS Port prior to the end of the term commitment period and the replacement committed ETS Port(s) does not satisfy the requirements specified in (B), above; (3) the customer discontinues an existing ETS Term Discount Plan, in its entirety, prior to the end of the term commitment period; or (4) the customer replaces an existing ETS Term Discount Plan with a new ETS Term Discount Plan or one or more individual ETS Port Term Discount Plans that does not satisfy the requirements specified in (C), above.

(C)

The discontinuance charge will be equal to 35% of the total undiscounted monthly rate for each committed ETS Port, included in the customer's ETS Term Discount Plan, for each month remaining in the unsatisfied term commitment period. Minimum service period charges, as specified in Section 16.3.4(C), preceding, would also apply, if applicable.

The following examples illustrate how the Telephone Company will calculate the applicable discontinuance charge.

Example 1

A customer discontinues its existing ETS Term Discount Plan, in its entirety, in the 20th month of a 36 month term commitment period. The customer included three 100 Mbps committed ETS Basic Ports when it established its initial term plan commitment.

Using an illustrative undiscounted monthly rate of \$330.00 for a 100 Mbps ETS Basic Port, the Telephone Company would bill the customer a term plan discontinuance charge totaling \$5,544.00 (i.e., \$330.00 x 35% x 3 ports x 16 months).

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(D) Discontinuance Charges (Cont'd)

Example 2

A customer disconnects one of the four 50 Mbps committed ETS Basic Ports, included in its ETS Term Discount Plan, in the 39th month of a 60 month term commitment period. The customer included all four of these ports when it established its initial term plan commitment.

Using an illustrative undiscounted monthly rate of \$275.00 for a 50 Mbps ETS Basic Port, the Telephone Company would bill the customer a port discontinuance charge totaling \$2,021.25 (i.e., \$275.00 x 35% x 21 months).

(E) <u>ETS Volume Discount Plan</u>¹

The ETS Volume Discount Plan (ETS VDP) is an optional pricing plan, that provides the ETS Term Discount Plan customer with an additional discount, applied against the monthly charges for its in-service committed ETS Basic and Interconnection Ports, when the customer has at least five committed ETS Ports in-service within the Telephone Company's operating territory.

In order to subscribe to, and retain, the ETS VDP, the customer must have an ETS Term Discount Plan commitment with the Telephone Company. The ETS Term Discount Plan customer must notify the Telephone Company, in writing, it wants to establish an ETS VDP. The customer may request an ETS VDP at the same time it establishes its ETS Term Discount Plan commitment, or at any time prior to the expiration of an existing ETS Term Discount Plan. The ETS VDP will continue for the balance of the customer's ETS Term Discount Plan commitment.

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¹ Exception to Rural Telephone Service dba Nex-Tech's ETS Volume Discount Plan regulations. As it pertains to Rural Telephone Service dba Nex-Tech, the ETS VDP is applied against all monthly ETS charges when the customer has at least five committed ETS Ports in-service within the Telephone Company's operating territory. The ETS VDP does not apply to ETS Ports ordered on a month-to-month basis (i.e., non-committed ETS Ports).

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.5 ETS Term Discount Plan (Cont'd)

(E) ETS Volume Discount Plan (Cont'd)

Each month, on the bill date, the Telephone Company will determine the number of committed ETS Basic and Interconnection Ports in-service under the customer's ETS TDP term commitment. If that number falls below five, the customer will not be eligible for the ETS VDP discount that month. When the number of committed ETS Basic and Interconnection Ports in-service is at least five, the ETS VDP discount will be applied for that month, to all committed ETS TDP Ports inservice. When applicable, the ETS VDP discount will be applied after the ETS TDP term discount is applied.

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The ETS VDP discount does not apply to: (1) ETS Ports ordered on a month-to-month basis or committed under an ETS PTDP term commitment (i.e., non-committed ETS TDP Ports), (2) any other ETS monthly charges, (3) any ETS nonrecurring charges, or (4) any monthly or nonrecurring charges for special access services connected to a committed ETS Interconnection Port.

Access Order Charges, as described in Section 5.4.1, preceding, do not apply to establish a new ETS VDP or to terminate an existing ETS VDP.

The ETS VDP discount is specified in Section 17.5.3(H), following.

16. Public Packet Data Network (Cont'd)

(N)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.6 ETS Port Term Discount Plan

An optional term discount plan is available for Ethernet Transport Service (ETS). Under the ETS Port Term Discount Plan, the monthly rates for eligible ETS service elements are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the term commitment period selected by the ETS customer.

ETS may be ordered at the ETS customer's option on an undiscounted month-tomonth basis, under a single ETS Term Discount Plan (ETS TDP) as described in Section 16.3.5, preceding, or under individual ETS Port Term Discount Plans (ETS PTDPs) as described herein.

Each individual ETS PTDP is associated with a single ETS PTDP Port provided within the Telephone Company's operating territory for the selected 36 or 60 month term commitment period. An ETS Basic or Interconnection Port included in an ETS PTDP is referred to as a committed ETS Port. The monthly rate for the committed ETS Port is reduced by a fixed percentage. The amount of the percentage discount differs based on the term commitment length selected by the ETS customer for that ETS PTDP term commitment.

The ETS customer may subscribe to an unlimited number of ETS PTDPs. When placing an order for a committed ETS PTDP Port, the customer must specify in writing the length of the selected ETS PTDP term commitment. A committed ETS PTDP Port must remain in-service throughout the entire term commitment period of the associated ETS PTDP.

The monthly rates for the committed ETS PTDP Port and associated eligible ETS elements are set forth in Sections 17.5.3(A)(1) through (F)(4), following.

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.6 ETS Port Term Discount Plan (Cont'd)

The term discount percentage for the customer selected term commitment period applies to the committed ETS Port and the following associated eligible ETS elements when provided within the Telephone Company's operating territory: 1) ETS Channel Terminations (ETS CTs); 2) ETS Ethernet Virtual Connections (ETS EVCs) and associated Class of Service (CoS) levels, where applicable; 3) ETS Extended Ethernet Virtual Connections (ETS E-EVCs); 4) ETS Interconnected Ethernet Virtual Connections (ETS I-EVCs); 5) ETS MultiMedia Virtual Circuit Channels (ETS MM-VCCs); 6) ETS Low Bit Rate Virtual Circuit Channels (ETS LBR-VCCs); 7) the ETS Bandwidth Add-On (ETS BAO) feature; and 8) the ETS Port Protection feature. Customer ordered additions, disconnects or changes to the number of and/or bandwidth capacities for ETS CTs, ETS EVCs, ETS E-EVCs, ETS I-EVCs, ETS MM-VCCs, ETS LBR-VCCs, ETS BAO features and ETS Port Protection features associated with a committed ETS Port may be made at any time during the term commitment period and do not affect the customer's ETS PTDP.

The ETS PTDP term discount percentage does not apply to: 1) an ETS Port ordered on a month-to-month basis or committed under an ETS TDP term commitment; 2) ETS CTs, ETS EVCs and associated CoS levels, where applicable, ETS E-EVCs, ETS I-EVCs, ETS MM-VCCs, ETS LBR-VCCs, ETS BAO features, and ETS Port Protection features that are not associated with a committed ETS PTDP Port; 3) ETS nonrecurring charges; and 4) special access services connected to an ETS Interconnection Port.

When an eligible ETS element (i.e., ETS EVCs and associated CoS levels, ETS E-EVCs, ETS I-EVCs, ETS MM-VCCs, ETS LBR-VCCs, and the ETS BAO) is ordered between two committed ETS PTDP Ports or between a committed ETS TDP Port and a committed ETS PTDP Port that have different term commitment lengths (e.g., one Port is committed for 36 months and the other Port is committed for 60 months), the Telephone Company will apply the discount percentage associated with the longer term commitment length (i.e., 60 months) to such eligible ETS element.

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.6 ETS Port Term Discount Plan (Cont'd)

The term discount percentage set forth in Section 17.5.3(I), following, will not be subject to Telephone Company initiated decreases during the customer's selected term commitment period. If a term discount percentage increase occurs during the term commitment period, the increased percentage will be applied automatically for the remainder of the customer's existing term commitment period.

At the end of each ETS PTDP term commitment period, the customer may subscribe to a new ETS PTDP or revert to the undiscounted monthly rates and nonrecurring charges specified in Sections 17.5.3(A)(1) through (F)(4), following. If the customer does not notify the Telephone Company in writing of its choice by the end of its existing term commitment period, the Telephone Company will automatically convert the customer's ETS billing to the undiscounted monthly rates and nonrecurring charges specified in Sections 17.5.3(A)(1) through (F)(4), following. A customer is not eligible to subscribe to a new ETS TDP once it has subscribed to one or more individual ETS PTDPs. An Access Order Charge as described in Section 5.4.1, preceding, does not apply to establish a new or make any changes to an existing ETS PTDP or when at the end of its existing term commitment period, the customer subscribes to a new ETS PTDP or reverts to undiscounted monthly rates and nonrecurring charges specified in Sections 17.5.3(A)(1) through (F)(4), following.

Except as specified in (A)–(B), below, discontinuance charges will apply when the customer fails to satisfy the term commitment period.

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16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.6 ETS Port Term Discount Plan (Cont'd)

(A) Committed ETS PTDP Port Replacement

At any time during the current term commitment period the customer may disconnect an existing committed ETS PTDP Port and replace it with a newly installed committed ETS PTDP Port at any available bandwidth capacity and any location within the Telephone Company's operating territory. The current term commitment period remains uninterrupted. For example, during the 20th month of a 36 month term commitment period, the ETS customer places orders to disconnect its existing 100 Mbps committed ETS PTDP Port and install a new 50 Mbps committed ETS PTDP Port. The newly committed 50 Mbps replacement ETS PTDP Port must remain in service for the remainder of the original 36 month ETS PTDP term commitment period.

The Telephone Company will waive the discontinuance charge as described in (C), below, and any unsatisfied minimum service period charge as described in Section 16.3.4(C), preceding, that may otherwise be applicable provided the customer's orders for the disconnection of the existing committed ETS PTDP Port and installation of the newly committed replacement ETS PTDP Port are submitted to the Telephone Company at the same time and include cross references as described in Section 5.2.8(E), preceding.

(B) ETS PTDP Replacement

At any time during the term commitment period the customer may replace an existing ETS PTDP with a new 36 or 60 month ETS PTDP commitment for an ETS PTDP Port at any available bandwidth capacity and any location within the Telephone Company's operating territory. For example, an existing ETS PTDP may be replaced in the 22nd month of a 60 month term commitment period with a new replacement ETS PTDP for 36 months. The term discount percentage applicable for the replacement ETS PTDP will apply on a going forward basis. customer's written request to establish a new replacement ETS PTDP should indicate the new 36 or 60 month term commitment period and the selected bandwidth capacity and location within the Telephone Company's operating territory for the newly committed replacement ETS PTDP Port. The Telephone Company will waive the discontinuance charge as described in (C), below, and any unsatisfied minimum service period charge as specified in Section 16.3.4(C), preceding, that may otherwise be applicable.

(N)

(N)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.6 ETS Port Term Discount Plan (Cont'd)

(C) <u>Discontinuance Charges</u>

Except as provided for in (A)–(B), above, a discontinuance charge will apply when a customer disconnects a committed ETS Port prior to the end of its ETS PTDP term commitment period. The discontinuance charge will be equal to 35% of the total undiscounted monthly rate for the committed ETS Port for each month remaining in the unsatisfied term commitment period. For example, a customer discontinues its 100 Mbps ETS Basic Port in the 20th month of a 36 month term commitment period. Using an illustrative undiscounted monthly rate of \$330 for a 100 Mbps ETS Basic Port, the Telephone Company will bill the customer a port discontinuance charge of \$1,848 (i.e., \$330.00 x 35% x 16 months). A minimum service period charge as specified in Section 16.3.4(C), preceding, would also apply, if applicable.

(D) ETS PTDP Volume Discount Plan

The ETS PTDP Volume Discount Plan (ETS PTDP VDP) is an optional pricing plan that provides the ETS PTDP customer with an additional discount applied against the monthly charges for its committed ETS Basic and Interconnection Ports when the customer has at least five committed ETS PTDP Ports in-service within the Telephone Company's operating territory on the first of each month. At the same time it subscribes to its ETS PTDP or any time thereafter, the customer may notify the Telephone Company in writing it wants to establish an ETS PTDP VDP.

On the 1st of each month, the Telephone Company will determine the number of committed ETS Basic and Interconnection Ports in-service under the customer's individual ETS PTDPs. If five or more committed ETS PTDP Ports are in-service on that date, the ETS PTDP VDP discount will be applied for that month to all committed ETS PTDP Ports in-service. If the customer does not have at least five committed ETS PTDP Ports in-service on the first of the month, it will not be eligible for the ETS PTDP VDP discount for that particular month. When applicable, the ETS PTDP VDP discount will be applied after the ETS PTDP term discount is applied.

(N)

Effective: January 2, 2018

16. Public Packet Data Network (Cont'd)

(N)

- 16.3 <u>Ethernet Transport Service</u> (Cont'd)
 - 16.3.6 ETS Port Term Discount Plan (Cont'd)
 - (D) <u>ETS PTDP Volume Discount Plan</u> (Cont'd)

The ETS PTDP VDP discount does not apply to: (1) ETS Ports ordered on a month-to-month basis or committed under an ETS TDP term commitment (i.e., non-committed ETS PTDP Ports), (2) any other ETS monthly charges, (3) any ETS nonrecurring charges, or (4) any monthly or nonrecurring charges for special access services connected to a committed ETS Interconnection Port. Access Order Charges as described in Section 5.4.1, preceding, do not apply to establish a new ETS PTDP VDP or to terminate an existing ETS PTDP VDP.

The ETS PTDP VDP discount is specified in Section 17.5.3(J), following.

(N)

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(N)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.7 ETS E-Rate Term Discount Plan

(A) General

The ETS E-Rate Term Discount Plan is a specialized pricing plan that provides qualified customers with an additional discount designed specifically to help stimulate broadband adoption by E-Rate eligible schools, libraries, or consortia. Under the ETS E-Rate Term Discount Plan, the monthly rates for eligible ETS service elements are reduced by a fixed percentage.

The ETS E-Rate Term Discount Plan provides Telephone Company Specific fixed percentage discount to a qualified E-Rate eligible school, library or consortium. The specific discount percentage rates are specified in Section 17.5.3(K), following. Nonrecurring charges are not subject to the ETS E-Rate Term Discount Plan.

To be eligible to subscribe to an available ETS E-Rate Term Discount Plan, a customer must:

- be an E-Rate eligible school, library or consortium as defined in Title 47, Part 54, Subpart F, Sections 54.500 and 54.501, and
- have a FCC Form 470 on the Universal Service Administrative Company's (USAC's) website requesting Category One data transmission services and Internet access that can be satisfied using Ethernet Transport Services provided by the Telephone Company under Moss Adams F.C.C. Tariff No. 1.

Upon receipt of a customer's written request to subscribe to an available ETS E-Rate Term Discount Plan, the Telephone Company will determine the customer's eligibility by verifying the existence of the required, qualifying FCC Form 470 on USAC's website (http://www.usac.org/sl/tools/default.aspx) for the applicable Funding Year.

Access Order Charges, as described in Section 5.4.1, preceding, do not apply to initial establishment of an ETS E-Rate Term Discount Plan a new or make any changes to an existing ETS E-Rate Term Discount Plan.

The ETS service elements, including optional features, available for installation at E-Rate eligible school, library or consortium locations within the Telephone Company's serving territory are specified in Section 17.5.3, following. ETS service element descriptions are identified in Section 16.3.4, preceding.

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.3 Ethernet Transport Service (Cont'd)

16.3.7 ETS E-Rate Term Discount Plan (Cont'd)

(A) General (Cont'd)

At any time the ETS E-Rate Term Discount Plan customer may: (1) order the installation of new committed ETS service elements and/or (2) request in-service ETS service elements be committed to the ETS E-Rate Term Discount Plan. When an ETS E-Rate Term Discount Plan customer installs new committed ETS service elements, an Access Order Charge and nonrecurring charges will apply for the newly installed elements. When the customer requests in-service ETS service elements be added to the ETS E-Rate Term Discount Plan, the Access Order Charge and nonrecurring charges will not apply.

(B) <u>Rate Regulations</u>

Any ETS service element included in the customer's ETS E-Rate Term Discount Plan must remain in-service from the time it is placed under the ETS E-Rate Term Discount Plan through the end of the qualified Funding Year. Any committed ETS service element disconnected during the defined Funding Year will be subject to a discontinuance charge. The discontinuance charge will be equal to 20% of the Telephone Company specific monthly rate for each disconnected ETS service element for each month remaining in the defined Funding Year.

A customer may not renew or extend an existing ETS E-Rate Term Discount Plan beyond the end of the defined Funding Year. The Telephone Company will notify the ETS E-Rate Term Discount Plan customer in writing 90 days prior to the end of the current Funding Year that the customer's ETS E-Rate Term Discount Plan is due to expire at the end of the current Funding Year. The ETS E-Rate Term Discount Plan customer must notify the Telephone Company in writing at least 30 days prior to the end of the current Funding Year of its decision to:

- subscribe to a new ETS E-Rate Term Discount Plan; or
- subscribe to a new ETS E-Rate Term Discount Plan commitment period as specified in Section 16.3.5, preceding;
- subscribe to individual ETS Port Term Discount Plan commitment periods as specified in Section 16.3.6, preceding; or
- revert to the undiscounted monthly rates and nonrecurring charges specified in Section 17.5.3, following.

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Effective: October 1, 2019

(N)

(N)

16. Public Packet Data Network (Cont'd)

(N)

16.3 <u>Ethernet Transport Service</u> (Cont'd)

16.3.7 ETS E-Rate Term Discount Plan (Cont'd)

(B) <u>Rate Regulations</u> (Cont'd)

If the customer does not notify the Telephone Company in writing at least 30 days prior to the end of the current Funding Year, the Telephone Company will automatically convert the customer's committed ETS service elements provided under the ETS E-Rate Term Discount Plan to the undiscounted monthly rates specified in Section 17.5.3, following, beginning the day after the current Funding Year ends. An Access Order Charge will not apply when a customer at the end of the current Funding Year subscribes to a new ETS E-Rate Term Discount Plan, a new ETS Term Discount Plan, new individual ETS Port Term Discount Plans or is converted to month-to-month billing using the undiscounted monthly rates and nonrecurring charges specified in Section 17.5.3, following.

Except as provided herein, all provisions specified in Section 16.3.4 (Rate Regulations), preceding, apply to ETS service elements included in the ETS E-Rate Term Discount Plan for the specified Funding Year. Minimum service period requirements specified in Section 16.3.4(C), preceding, are waived on all committed ETS service elements placed under the ETS E-Rate Term Discount Plan. Any ETS service element committed under the ETS E-Rate Term Discount Plan cannot also be committed under any other term or discount plan available for ETS, i.e., ETS Term Discount Plan or ETS Port Term Discount Plan.

(N)

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service

16.4.1 General

Internet Protocol Gateway Access Service (IPG) is an optional two-way packet transport service that provides an end-to-end transmission path using packet technology at transport speeds of either 1.544 Mbps or 44.736 Mbps, where available. IPG enables the customer to interconnect its Internet Protocol (IP) based network with the Telephone Company's switched network at a Telephone Company provided IP gateway. IPG is only available to connect the customer's designated premises (CDP) to a Telephone Company provided IP gateway serving wire center (IPG SWC) when both the CDP and IPG SWC are located within the Telephone Company's serving territory.

IPG provides the customer with voice transmission and call set up signaling paths between its CDP and the IPG SWC. Available for use in conjunction with Feature Group D (FGD) Switched Access Service, as described in Section 6.8.1, preceding, IPG provides the customer with the ability to deliver interexchange voice traffic originated on or transported across its IP based network for termination to the Telephone Company's local exchange service subscribers and to accept interexchange voice traffic originated on or transported across the Telephone Company's network.

16.4.2 Service Description

As described below, IPG is provided using a combination of IPG Transport and IPG Ports. IPG can only be used in conjunction with FGD Switched Access Service, which is ordered separately by the IPG customer.

IPG Transport is required to provide the connection between the CDP and Telephone Company IPG SWC. IPG Transport consists of an IPG Transport Termination and, where required, an IPG Transport Mileage Facility and IPG Transport Mileage Termination. Which IPG Transport rate elements apply will depend on where, in its network, the Telephone Company deploys its IP gateway. An IPG Port is required to provide the interface at the IPG SWC to the Telephone Company's switched network.

The transmission quality of IPG is not guaranteed and is offered to the IPG customer at a best effort level. The Telephone Company will attempt to deliver all interexchange voice traffic received that was originated on or transported across the IPG customer's IP based network.

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.2 Service Description (Cont'd)

The Telephone Company will provide the IPG customer accurate call signaling data for interexchange voice traffic, that originates on, or is transported across, the Telephone Company's network. The call signaling data will either: (1) conform to an active 10-digit North American Numbering Plan or directory number, which is associated with the geographic location of the originating calling party (i.e., Calling Party Number and/or Automatic Number Identification) or (2) represent IP equivalent call signaling that is mutually agreed upon by the IPG customer and Telephone Company, at the time the customer places its order for IPG.

Service is provided, where available, between CDPs and designated Telephone Company IPG SWCs located within the Telephone Company's serving territory. IPG will be furnished, where suitable facilities exist, as determined by the Telephone Company. The Telephone Company will identify its IPG SWCs in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4.

Rates and charges for IPG are specified in Section 17.5.4, following. application of rates and charges for IPG is described later in this section.

16.4.3 Obligations of the Customer

In addition to the regulations described in other sections of this tariff, the following provisions apply to IPG.

- The IPG customer is responsible for providing the Telephone Company (A) with the necessary information to provision IPG, as specified in Section 5.2, preceding.
- (B) The IPG customer is responsible for passing, to the Telephone Company, accurate call signaling data that will enable the Telephone Company to accurately bill for the associated terminating FGD Switched Access Service network usage. Such call signaling data must either: (1) conform to an active 10-digit North American Numbering Plan or directory number, which is associated with the geographic location of the originating calling party (i.e., Calling Party Number and/or Automatic Number Identification) or (2) represent IP equivalent call signaling that is mutually agreed upon by the IPG customer and Telephone Company, at the time the customer places its order for IPG.
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(x)

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(x)

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16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.3 Obligations of the Customer (Cont'd)

(C) The IPG customer is responsible for providing and maintaining all required CPE, which is compatible with IPG, and the customer selected signaling interface, and bearer channel format, that comply with the requirements specified in the following Technical References:

• IETF RFC 3261 - June 2002;	(x)
• IETF RFC 3262 - June 2002;	(x)
• IETF RFC 3263 - June 2002;	(x)
• IETF RFC 3264 - June 2002;	(x)
• IETF RFC 3265 - June 2002;	(x)
• IETF RFC 3550 - July 2003;	(x)
• ITU-T G.711 - November 1988;	(x)
• ITU-T G.723.1 - May 2006;	(x)
• ITU-T G.729 - January 2007;	(x) (x)
• ITU-T G.7041/Y.1303 - August 2005;	(x)
• ITU-T G.8040/Y.1340 - September 2005;	(x)
• ITU-T H.225.0 - May 2006;	(x)
• ITU-T H.245 - June 2008; and/or	(x)
• ITU-T H.323 - June 2006.	(x)

16.4.4 Rate Regulations

This section contains the regulations governing the rates and charges that apply for IPG. Regulations governing the rates and charges for FGD Switched Access Service, provided under this tariff, used in conjunction with IPG, are as specified in Section 6.8.1, preceding. The following diagrams depict generic views of the elements of IPG.

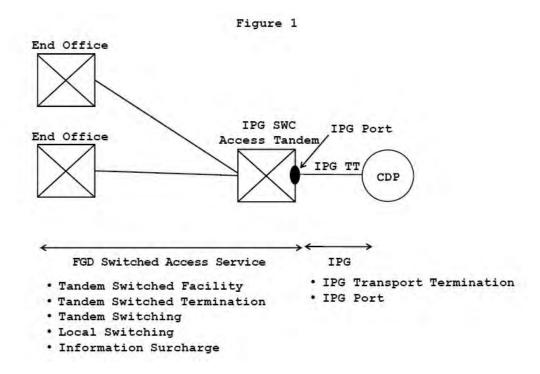
(x) Issued under authority of Special Permission No. 16-008 of the Federal Communications Commission.

16. Public Packet Data Network (Cont'd)

16.4 <u>Internet Protocol Gateway Access Service</u> (Cont'd)

16.4.4 Rate Regulations (Cont'd)

In the first figure, the IPG customer's CDP is served by the Telephone Company's IPG SWC. The Telephone Company deployed its IP gateway at its access tandem office. The IPG customer obtains the ability to deliver traffic originated on, or transported across, its IP based network for termination to local exchange service subscribers, served by end offices subtending this access tandem office, and to accept traffic originated on, or transported across, the Telephone Company's network. The IPG customer orders the applicable IPG service elements from the Telephone Company, pursuant to the provisions specified in this section, and the applicable FGD Switched Access Service elements, pursuant to the provisions specified in Section 6.8.1, preceding.

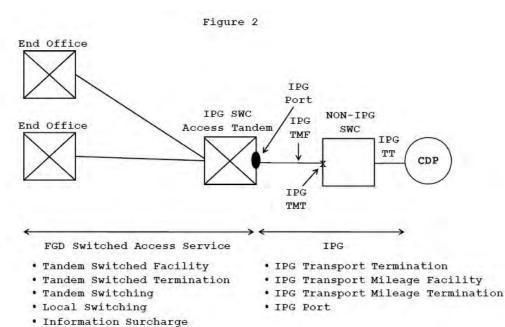


16. Public Packet Data Network (Cont'd)

16.4 <u>Internet Protocol Gateway Access Service</u> (Cont'd)

16.4.4 Rate Regulations (Cont'd)

In the second figure, the IPG customer's CDP is served by a SWC that is not the IPG SWC. The Telephone Company deployed its IP gateway at its access tandem office. The IPG customer obtains the ability to deliver traffic originated on, or transported across, its IP based network for termination to local exchange service subscribers, served by end offices subtending this access tandem office, and to accept traffic originated on, or transported across, the Telephone Company's network. The IPG customer orders the applicable IPG service elements from the Telephone Company, pursuant to the provisions specified in this section, and the applicable FGD Switched Access Service elements, pursuant to the provisions specified in Section 6.8.1, preceding.



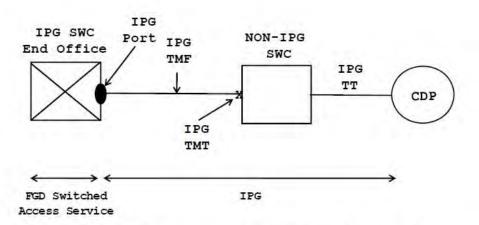
16. Public Packet Data Network (Cont'd)

16.4 <u>Internet Protocol Gateway Access Service</u> (Cont'd)

16.4.4 Rate Regulations (Cont'd)

In the third figure, the IPG customer's CDP is served by a SWC that is not the IPG SWC. The Telephone Company deployed its IP gateway at its end office. The IPG customer obtains the ability to deliver traffic originated on, or transported across, its IP based network for termination to local exchange service subscribers, served by this end office, and to accept traffic originated on, or transported across, the Telephone Company's network. The IPG customer orders the applicable IPG service elements from the Telephone Company, pursuant to the provisions specified in this section, and the applicable FGD Switched Access Service elements, pursuant to the provisions specified in Section 6.8.1, preceding.

Figure 3



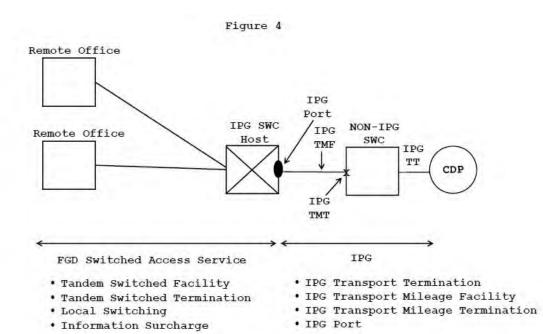
- · Local Switching
- IPG Transport Termination
- · Information Surcharge
- IPG Transport Mileage Facility
- IPG Transport Mileage Termination
- · IPG Port

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.4 Rate Regulations (Cont'd)

In the fourth figure, the IPG customer's CDP is served by a SWC that is not the IPG SWC. The Telephone Company deployed its IP gateway at its host office. The IPG customer obtains the ability to deliver traffic originated on, or transported across, its IP based network for termination to local exchange service subscribers, served by this host office and its subtending remote offices, and to accept traffic originated on, or transported across, the Telephone Company's network. The IPG customer orders the applicable IPG service elements from the Telephone Company, pursuant to the provisions specified in this section, and the applicable FGD Switched Access Service elements, pursuant to the provisions specified in Section 6.8.1, preceding.



16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.4 Rate Regulations (Cont'd)

(A) <u>Rate Categories</u>

IPG service elements are described below. Rates and charges are specified in Section 17.5.4, following

(1) <u>IPG Transport Termination (TT)</u>

An IPG TT provides the transport facility between the customer's designated premises and the Telephone Company's SWC. The IPG TT rate element is designed to recover the costs associated with this transport facility.

IPG TTs are available at bandwidth speeds of 1.544 Mbps and 44.736 Mbps. The IPG customer orders the quantity and type of IPG TT it needs, based on its bandwidth requirements. An IPG TT may be connected to: (1) an IPG Port, when the IPG SWC is the SWC serving the customer's designated premises, or (2) an IPG Transport Mileage Facility and IPG Transport Mileage Termination, when the SWC serving the customer's designated premises is not IPG equipped.

Monthly and nonrecurring charges apply for each IPG TT ordered. The charges are based upon the bandwidth capacity ordered by the customer. The IPG TT will apply even if the customer's designated premises and the IPG SWC are located in the same Telephone Company building.

(2) <u>IPG Transport Mileage Facility (TMF)</u>

IPG TMF is required when the SWC serving the customer's designated premises is not IPG equipped. The IPG TMF provides the transport facility between the SWC serving the customer's designated premises and the Telephone Company's IPG SWC. The IPG TMF rate element is designed to recover the costs associated with this transport facility.

IPG TMF is available at bandwidth speeds of 1.544 Mbps and 44.736 Mbps. The IPG customer orders the quantity and type of IPG TMF it needs, based on its bandwidth requirements.

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(2) <u>IPG Transport Mileage Facility (TMF)</u> (Cont'd)

A monthly charge applies for each IPG TMF ordered. The monthly charge for each IPG TMF is based upon the bandwidth speed ordered and the number of airline miles between the SWC serving the customer's designated premises and the Telephone Company's IPG SWC. To determine the applicable monthly charge, first compute the airline mileage using the V&H coordinates method described in the National Exchange Carrier Association, Inc. Tariff F.C.C. No. 4. When the calculation results in a fraction of a mile, always round up to the next whole mile, before determining the total airline mileage. Once the total airline mileage for each IPG TMF is determined, multiply the number of airline miles times the IPG Transport Mileage Facility per mile rate for the bandwidth speed ordered.

(3) <u>IPG Transport Mileage Termination (TMT)</u>

An IPG TMT is required whenever the customer orders IPG TMF, as described in (2), above. The IPG TMT provides the circuit equipment needed to terminate an IPG TMF at the SWC serving the customer's designated premises. The IPG TMT rate element is designed to recover the costs associated with this circuit equipment.

IPG TMT is available at bandwidth speeds of 1.544 Mbps and 44.736 Mbps.

For each IPG TMF ordered by the customer, one IPG TMT, at the same speed as the associated IPG TMF, applies. A monthly charge applies for each IPG TMT based upon the bandwidth speed ordered by the Customer.

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16. Public Packet Data Network (Cont'd)

16.4 <u>Internet Protocol Gateway Access Service</u> (Cont'd)

16.4.4 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(4) IPG Port

An IPG Port provides network and signaling interfaces at the Telephone Company's IPG SWC. The IPG Port also provides for the establishment of a trunk-side bearer channel transmission path to allow voice call information to be passed between the customer's IP based network and the Telephone Company's switched network. The IPG Port rate element is designed to recover the costs associated with providing the interface for the bearer channel transmission path.

IPG Ports are available with bandwidth speeds of 1.544 Mbps and 44.736 Mbps. Required IPG Transport into the IPG Port is provided using either: (1) an IPG TT, when the SWC serving the customer's designated premises is IPG equipped, or (2) a combination of an IPG TT, an IPG TMF, and an IPG TMT, when the SWC serving the customer's designated premises is not IPG equipped. The bandwidth speed of an IPG Port must be equal to the bandwidth speed of the associated IPG Transport.

A monthly charge applies for each IPG Port ordered. The monthly charge for each IPG Port is based upon the bandwidth speed ordered by the customer.

(B) <u>Types of Rates and Charges</u>

There are two types of rates and charges applicable to IPG. They are monthly rates and nonrecurring charges, as described below.

(1) Monthly Rates

Monthly rates are recurring rates that apply each month, or fraction thereof, when an IPG service element is provided. For billing purposes, each month is considered to have 30 days.

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.4 Rate Regulations (Cont'd)

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

(2) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for IPG are installation of service, service rearrangements, and moves.

Except as specified below, these charges are in addition to the Access Order Charge, as specified in Section 17.4.1, following.

(a) Installation of Service

Nonrecurring charges apply for the installation of IPG Transport Terminations.

(b) Service Rearrangements

Service rearrangements are changes to existing (i.e., installed) services, which may be administrative only in nature, as set forth below, or that involve an actual physical change to the service.

When the IPG customer elects to change the bandwidth capacity on existing IPG Ports and associated IPG Transport, the request will be considered a discontinuance of service for the former capacity and start of service for the new capacity. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new IPG service elements. The IPG customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued IPG service elements, if applicable.

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- 16. Public Packet Data Network (Cont'd)
 - 16.4 Internet Protocol Gateway Access Service (Cont'd)
 - 16.4.4 Rate Regulations (Cont'd)
 - Types of Rates and Charges (Cont'd) (B)
 - (2) Nonrecurring Charges (Cont'd)
 - (b) Service Rearrangements (Cont'd)

Following the initial installation of service, the IPG customer may request a change to its existing signaling interface and/or bearer channel format, provided the requested signaling interface, and/or bearer channel format, conforms to the transmission standards specified in the Technical References listed in Section 16.4.3(B), above. The Telephone Company and IPG customer will work cooperatively to ensure that proper call addressing and billing information will continue to be exchanged, as described in Section 16.4.3(C), above, after the requested change is made. An Access Order Charge, per order, will apply for this type of request.

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

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

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Change of jurisdiction.

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(x)

16. Public Packet Data Network (Cont'd)

16.4 Internet Protocol Gateway Access Service (Cont'd)

16.4.4 Rate Regulations (Cont'd)

- (B) Types of Rates and Charges (Cont'd)
 - (2) <u>Nonrecurring Charges</u> (Cont'd)

(c) <u>Moves</u>

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

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

The charges for moving IPG service elements are dependent on whether the move is to a different location within the same building, to a different building within the same SWC, or to a different building in a different SWC.

(i) Moves Within the Same Building

IPG Ports, and, where required, IPG TMFs, and IPG TMTs, are not impacted when the IPG customer moves its Point of Termination to a different location within the same building. The charge for moving an IPG TT to a new location within the same building will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the IPG TT. There will be no change in the minimum period requirements.

- 16. Public Packet Data Network (Cont'd)
 - 16.4 Internet Protocol Gateway Access Service (Cont'd)
 - 16.4.4 Rate Regulations (Cont'd)
 - (B) Types of Rates and Charges (Cont'd)
 - (2) Nonrecurring Charges (Cont'd)
 - (c) Moves (Cont'd)
 - (ii) <u>Moves To a Different Building Within the Same</u> <u>SWC</u>

IPG Ports, and, where required, IPG TMFs, and IPG TMTs, are not impacted when the IPG customer moves its Point of Termination to a different building within the same SWC. The move of an IPG TT will be treated as a discontinuance and start of service. A nonrecurring (i.e., installation) charge will apply per IPG TT. A new minimum period requirement will be established for the IPG TT. The IPG customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued IPG TT, if applicable.

(iii) <u>Moves To a Different Building in a Different SWC</u>

A move to a different building, in a different SWC, will be treated as a discontinuance and start of service of all associated IPG elements. Associated nonrecurring (i.e., installation) charges will apply. New minimum period requirements will be established for the new IPG service elements. The IPG customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued IPG service elements, if applicable.

(C) <u>Minimum Periods</u>

The minimum period, for all IPG service elements, provided to the IPG customer, and for which charges are applicable, is twelve (12) months.