

7. Special Access Service

7.1 Description

Special Access service is billed at the rates and charges set forth in Section 30.7.

7.1.1 General	
A.	Special access service provides a transmission path to connect the following locations.
1.	Customer designated premises
a.	Telephone Company Centrex switches, Telephone Company answering service concentrators and Collocation are considered to be customer designated premises for purposes of administering regulations and rates contained in this tariff.
2.	A customer designated premises and a WSO
3.	A customer designated premises and a network controller location
4.	A customer designated premises and a central office data voice multiplexer location, either directly or through a Telephone Company hub where bridging, or multiplexing functions are performed.
B.	Special access service includes all exchange access not utilizing Telephone Company end office switches.

(D)

7.1.2 Service Structure	
A.	Special access services consist of a basic channel to which a technical specifications package (customized or predefined), channel interfaces and optional features and functions are added to construct the service desired by the customer.
B.	Each type of channel used to provide special access service has its own characteristics. All are subdivided by one or more of the following distinctions.
1.	Transmission Specifications
2.	Bandwidth
3.	Speed/bit rate
4.	Spectrum
C.	For purposes of ordering, each channel 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 metallic service in this tariff, there is no restriction against doing so. Detailed descriptions of each channel type and service are provided in Section 7.2.
D.	The connections provided by special access service can be either analog or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate.

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7.1.2 Service Structure	
E.	The technical specifications and channel interfaces are contained in technical publications which are referenced throughout this section. 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.
1.	When a customized channel is ordered, the customer will be notified whether additional engineering charges apply. In such case, the customer will be given an estimate of the hours to be billed before any further action is taken on the order.

7.1.3 Manner of Provision	
A.	Transmission Specifications— The Telephone Company will maintain existing transmission specifications on services installed prior to the effective date of this tariff except that the existing services with performance specifications exceeding the standards listed in this provision will be maintained at the performance levels specified in this tariff. All services installed after the effective date of this tariff will conform to the transmission specifications standards contained in this tariff or in the technical references for each category of service.
B.	Facilities Routing— A customer may request that the facilities used to provide special access service be specifically routed. The regulations for special facilities routing (i.e., avoidance, diversity and cable-only) are set forth in Section 11.
C.	Channel Interfaces— Certain channel interface combinations are available with the predefined technical specifications packages (refer to technical references). When a customized channel is requested, all channel interface combinations available with the specified type of service are available with the customized channel.
D.	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 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.
E.	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.
1.	For voice grade analog services and WAL services*, acceptance tests will include the following tests for loss. (N)
a.	3-tone slope
b.	DC continuity
c.	Operational signaling

* Please refer to Section 21 for limitations on the availability of WATS Access Line (WAL) Service.

(N)

7. Special Access Service**7.1 Description**

7.1.3 Manner of Provision	
E.1. (Continued)	
d.	C-notched noise
e.	C-message noise when these parameters are applicable and specified in the order for service.
2.	For voice grade services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.
3.	For other analog services and for digital services (i.e. DDSII, fractional T-1, DDS and high capacity), acceptance tests will include tests for the parameters applicable to the service as specified in the order for service.
F.	Additional Cooperative Acceptance Testing for Voice Grade Service— In addition to acceptance testing, testing of other parameters as described in Section 13, is available at the customer's request. All tests results will be made available to the customer upon request.
G.	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.
1.	The arrangement required to transfer the service from one operation to the other (i.e., the transfer delay and control leads) will be rated and provided on an individual case basis. The customer will pay the stated tariff rates for the access service rate elements for the service ordered (i.e. channel terminations, channel mileage and optional features and functions).

(D)

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7.1 Description

7.1.4 Multiplexing	
A.	Facility Hubs— Different locations may be designated as hubs for different facility capacities. Multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. Some of the types of multiplexing available include multiplexing from higher to lower bit rate, and multiplexing from digital to voice frequency channels.
1.	A customer has the option of ordering voice grade facilities or digital high capacity facilities (i.e., DS1) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., voice grade, etc.). 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 Section 7.2 in association with individual special access services.
a.	End-to-end services may be provided on channels of these facilities to a hub. The transmission performance for the end-to-end service provided between customer designated premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps facility is multiplexed to voice frequency channels, the transmission performance of the channelized services will be voice grade (not high capacity).
2.	The customer may specify optional features for the individual channels derived from the facility to meet specific communication's requirements. For example, a customer may order a 1.544 Mbps facility from a customer designated premises to a Telephone Company hub for multiplexing to 24 voice grade channels. Optional features may be added to either the 1.544 Mbps or the voice grade channels.
B.	Cascading Multiplexing occurs when a high capacity digital channel is demultiplexed to provide channels with a lesser capacity and one of the lesser capacity channels if further demultiplexed. 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 rates and mid link NRCs also apply between the hubs.
C.	Intermediate or Terminus Hubs are wire centers that provide DS1 to voice multiplexing. The Telephone Company will make available to the customer a list from which the customer will choose a desired hub. The hub list will specify the type(s) of multiplexing which are available at specific locations.
D.	The Telephone Company will commence billing the monthly rate for the facility to the hub on the date specified by the customer on the service order. Individual services utilizing these facilities may be installed coincident with the installation of the facility to the hub or may be ordered and/or installed at a later date, at the option of the customer. The customer will be billed for a voice grade or a high capacity digital channel termination, channel mileage (when applicable), and the multiplexer at the time the facility 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.

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7. Special Access Service
7.1 Description

7.1.5 Two-Point Service Configuration	
A.	Two-point service which is illustrated in Exhibit 7.1.5-1, connects the following locations. 1. Two customer designated premises 2. A customer designated premises and a WSO 3. A customer designated premises and a central office data voice multiplexer location 4. A customer designated premises and a network controller location either on a directly connected basis or through a hub where multiplexing or Vertical service (i.e., NRS or FRS) functions are performed.
B.	The applicable rate elements are, channel terminations, channel mileage and optional features and functions. Only one channel termination will apply for WAL service or for special access service connected to a central office data voice multiplexer, or for special access service connected to the network controller location. Extension service provided for an additional termination of WAL service is described in Section 7.5.

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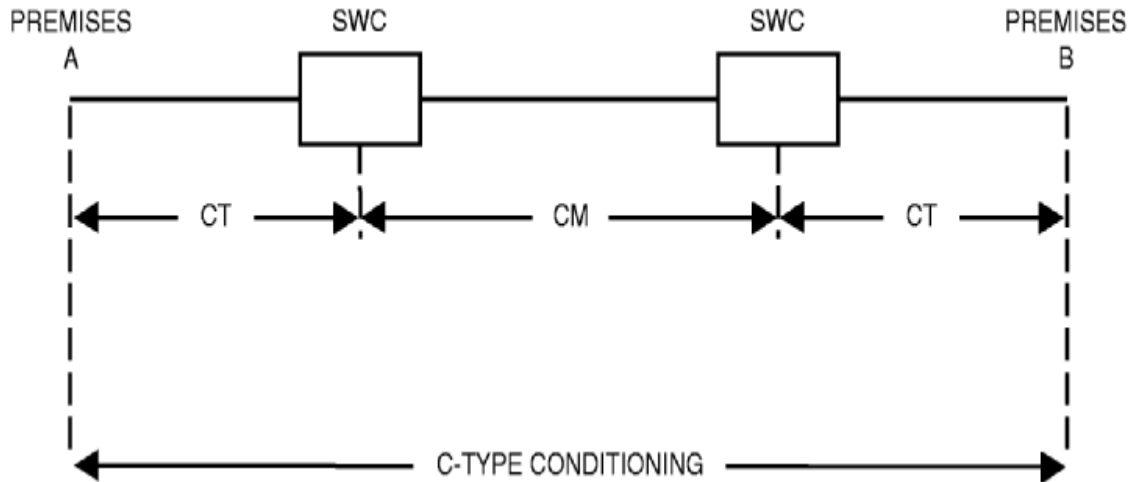
7. Special Access Service

7.1 Description

7.1.5 Two-Point Service Configuration

Exhibit 7.1.5-1

Two-Point Voice Grade Service Connecting



Assumptions

Two customer designated premises located fifteen miles apart.

C-Type Conditioning is provided.

Applicable Rate Elements and Quantities

2 Channel Terminations (CT)

Channel Mileage (CM) - (mileage band Over 8 to 25 miles)

C-Type Conditioning

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7.1 Description

7.1.6 Multipoint Service Configuration	
A.	Multipoint service, which is illustrated in Exhibit 7.1.6-1, connects three or more customer designated premises through a Telephone Company hub. There is no limitation on the number of mid links available with multipoint service. However, where more than three mid links are provided in tandem, the quality of the service may be degraded. A mid link is a channel between hubs (i.e. bridging locations). Only certain types of special access service are provided as multipoint service refer to Section 7.2).
1.	Multipoint service utilizing a customized technical specifications package 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.
2.	When ordering, the customer will specify the desired bridging hub(s) selected from the NECA Tariff FCC No. 4, which identifies the type(s) of bridging functions which are available, and the serving wire centers at which they are available.
B.	The applicable rate elements are channel terminations, channel mileage and optional features and functions. One channel termination will apply per customer designated premises.

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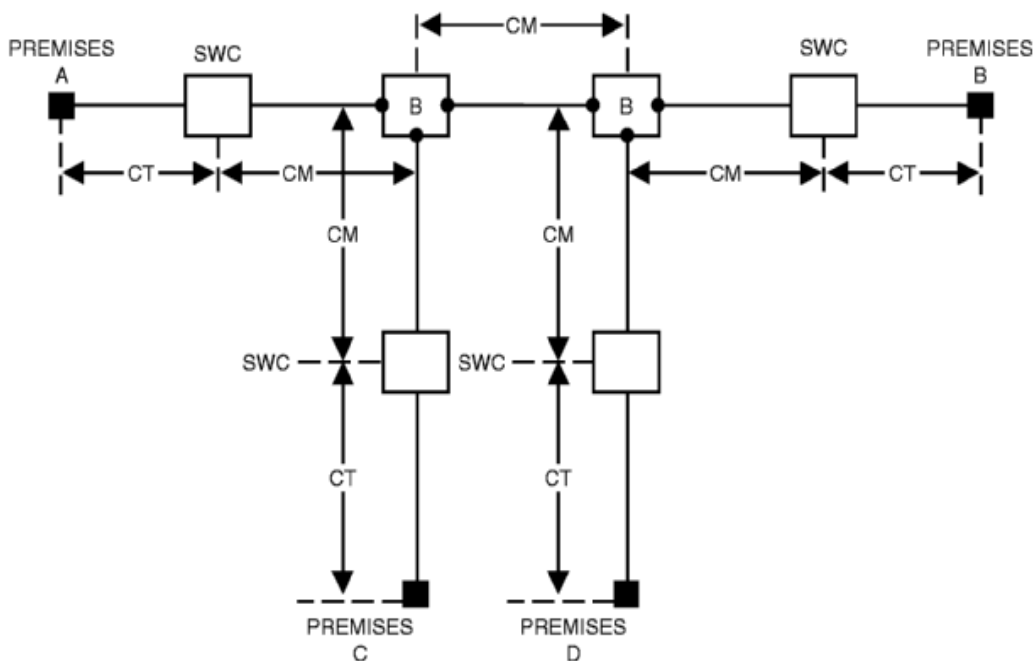
7. Special Access Service

7.1 Description

7.1.6 Multipoint Service Configuration

Exhibit 7.1.6-1

Voice Grade Multipoint Service Connecting Four Customer Designated Premises via Two Customer Specified Bridging Hubs



Applicable Rate Elements and Quantities

- 4 Channel Terminations (CT)
- 5 Sections of Channel Mileage (CM) - (each from appropriate mileage band)
- 6 Bridging (B) Ports (Bridge Ports ●)

7. Special Access Service**7.2 Description of Special Access Services****7.2.1 Reserved for Future Use****7.2.2 Reserved for Future Use****7.2.3 Voice Grade Service** - Please refer to Section 21, for limitations on the availability of Voice Grade Service.

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| A. | A voice grade channel is a channel for the transmission of analog signals 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. |
| B. | Voice grade channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub. |

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7.2 Description of Special Access Services

7.2.3 Voice Grade Service - Please refer to Section 21, for limitations on the availability of Voice Grade Service.	(N) (N)
C. The technical specifications for the service and its optional features are defined in TR-NPL-000335 and PUB 41004 which also contains compatible channel interfaces.	
D. Optional Features and Functions 1. Central Office Bridging Capability a. Voice—Two-wire and four-wire b. Data—Two-wire and four-wire c. Dataphone Select-A-Station—With sequential arrangement ports or addressable arrangement ports. d. Telemetry and Alarm—Split Band Active Bridging, Passive Bridging and Summation, Active Bridging. 2. Central Office multiplexing (or CO muxing)— is telephone exchange (central office) equipment that derives a number of lower speed channels from one high-bandwidth channel. 3. Conditioning provides more specific transmission characteristics for voice grade services. For two-point services, the parameters apply to each service. For multi-point services, the parameters apply to each mid link or end link. C-type conditioning and data capability may be combined on the same service. a. C-type provides for the additional control of attenuation distortion and envelope delay distortion on data services. b. Sealing current provides to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type channel interfaces. 4. Customer Specified Premises Receive Level 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. 5. Improved Return Loss 2-Wire provides improved echo control via an upgraded return loss limit. Telephone Company equipment may be required at the customers' premises where the option is ordered. 6. Improved Return Loss 4-Wire provides improved echo control via an upgraded ELEPL. Telephone Company equipment may be required at the customers' premises where the option is ordered. 7. Data Capability (D-Type Conditioning) provides transmission characteristics suitable for data communications. It provides for the control of signal to C-notched noise ratio and intermodulation distortion and is available for two-point or multi-point services. When a service equipped with data capability is used for voice communications the quality of the voice transmission may not be satisfactory.	

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7.2 Description of Special Access Services

7.2.3	Voice Grade Service - Please refer to Section 21, for limitations on the availability of Voice Grade Service.	(N) (N)
D.	(Continued)	
8.	Telephoto Capability provides transmission characteristics suitable for telephotographic communications. It provides for the control of attenuation distortion and envelope delay distortion on telephotographic services.	
9.	Signaling Capability provides for the process by which one customer designated premises alerts another customer designated premises on the same service with which it wishes to communicate.	
10.	Selective Signaling Arrangement permits code selective ringing for up to ten codes on a multipoint service.	
11.	Transfer Arrangement provides an additional measure of flexibility in the use of access channel(s). It can be used to transfer a channel of a Special Access service to another 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. [Refer to Section 7.5.3 for appropriate rating regulations.]	
12.	Four-Wire/Two-Wire Conversion— 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 rate for the conversion is included as part of the basic channel termination rate.	

7.2.4	DIGIPATH® Digital Service II (DDSII) – Please refer to Section 21, for limitations on the availability of DIGIPATH® Digital Service II (DDSII).	(N) (N)
A.	A DDSII channel is a channel for the simultaneous transmission of synchronous transmission of digital data at the rate of 2.4, 4.8, 9.6, 19.2 and 56.0 kbps. The actual bit rate is a function of the channel interface selected by the customer.	
B.	DDSII operates in a full-duplex, synchronous transmission mode over either two-wire or four-wire facilities between customer designated premises or between a customer designated premises and a Telephone Company hub. 56.0 kbps service is available on four-wire facilities only.	
1.	DDSII may operate over two-wire facilities between a customer designated premises and a network controller location.	
C.	The technical specifications for the service and optional features are defined in TR–NPL–000157, PUB 62310, NTR–74374 and NTR–74375, which also contain compatible channel interfaces.	

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7.2 Description of Special Access Services

7.2.4	DIGIPATH® Digital Service II (DDSII) - Please refer to Section 21, for limitations on the availability of DIGIPATH® Digital Service II (DDSII).	(N) (N)
D.	Optional Features and Functions	
1.	Secondary Channel Capability permits a DDSII channel to be used with a compatible customer-provided data service unit which can derive a lower speed secondary channel at a synchronous rate. The secondary channel operates in parallel with the primary DDSII channel and is used for diverse network capabilities including, but not limited to providing a lower speed data channel or access to a network management system to perform on-line diagnostics and testing, data monitoring, traffic measurement, etc. This feature is provided from suitably equipped serving wire centers and is available on a point-to-point basis, where facilities permit.	
7.2.5	Fractional T-1 Service - Please refer to Section 21, for limitations on the availability of Fractional T-1 Service.	(N) (N)
A.	A fractional T-1 channel is a channel for the simultaneous two-way transmission of serial, bipolar, return-to-zero, digital signals at a transmission rate of 56 kbps per channel, provided over high capacity 1.544 Mbps service. Fractional T-1 service is configured in either eight channel fractional T-1/3, or twelve channel Fractional T-1/2, arrangements over 1.544 Mbps technology. These channels will remain separately formatted within the 1.544 Mbps signal.	
B.	Fractional T-1 is provided only where facilities are available and is subject to the technical limitations of the digital equipment used by the Telephone Company.	
C.	Fractional T-1 is designed to provide an average performance of at least 95% error-free seconds of transmission measure over a continuous 24 hour period.	
D.	Customer provided multiplexing equipment must conform with the electrical requirements for channel units as delineated in PUB 41451 and PUB 62411 which also contain compatible channel interfaces. The customer is responsible for designating whether the channels will be used for analog voice, analog data or digital data, for assigning the eight or twelve channels within the multiplexer and for maintaining records of those assignments.	
7.2.6	Digital Data Service (DDS)	
A.	DDS is no longer offered. Existing customers with in service quantities as of November 15, 1991 will continue to be furnished service as described herein and as configured as set forth in Section 7.1.5 and 7.1.6. Please refer to Section 21, for additional limitations on the availability of Digital Data Service (DDS).	(N) (N)
B.	DDS channels are used for duplex four-wire transmission of synchronous serial data at the rate of 2.4, 4.8, 9.6 or 56.0 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.	

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7.2 Description of Special Access Services

7.2.6 Digital Data Service (DDS)	
C.	DDS channels are only available via Telephone Company designated hubs and are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.
D.	The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds while the channel is in service, if it is measured through a CSU equivalent which is designated, manufactured and maintained to conform with the specifications contained in PUB 62507 and PUB 62310.
1.	Voltages which are compatible with DDS and compatible channel interfaces are specified in the technical reference.
E.	Optional Features and Functions
1.	Central Office Bridging—Transfer Arrangement permits 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 channel of a special access service to either a spare or working channel that terminated 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 part of the option.

7.2.7 High Capacity Service—1.544 Mbps		(T)
A.	A high capacity 1.544 Mbps channel is a channel for the transmission of nominal 1.544 Mbps isochronous serial data. The actual bit rate and framing format is a function of the channel interface selected by the customer.	(T)
B.	High capacity 1.544 Mbps channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub.	(T)
C.	A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designated, manufactured and maintained to conform with the specifications contained in PUB 62411, PUB 62508, TR-NPL-000054 and CB 119/TA34. The technical specifications for the service, its optional features and compatible channel interfaces are defined in the technical references.	
D.	Optional Features and Functions	
1.	Central Office Multiplexing	
a.	DS1 to Voice converts a 1.544 Mbps channel to twenty-four channels for use with voice grade services. [Existing customers with in service DDS quantities as of November 15, 1991 may use a channel of the DS1 to the hub for DDS service at the applicable special access rates and charges].	

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7.2 Description of Special Access Services

7.2.7 High Capacity Service—1.544 Mbps	
D.1. (Continued)	
b.	DS1 to DS0 converts a 1.544 Mbps channel up to twenty-four 64.0 kbps channels using digital time division multiplexing. [DS1 to DS0 is no longer offered except to existing DDS customers with in service DDS quantities as of November 15, 1991 at the applicable special access rates and charges].
c.	DS0 to Subrate converts a 64.0 kbps channel to sub-speeds of up to twenty 2.4 kbps, ten 4.8 kbps or five 9.6 kbps channels using time division multiplexing. This is available only on a channel of a 1.544 Mbps facility to a Telephone Company hub. [DS0 to Subrate is no longer offered except to existing DDS customers with in service DDS quantities as of November 15, 1991 at the applicable special access rates and charges].
d.	DS1 to Digital converts a 1.544 Mbps channel to twenty-four 64.0 kbps channels at the digital signal level for use with digital special access services.
2.	Clear Channel Capability provides a Bipolar with Eight Zero Substitution (B8ZS) encoding technique that allows a customer to transport 1.536 Mbps information rate signals over a 1.544 Mbps high capacity channel with no constraint on the quantity or sequence of ones (mark) and zero (space) bits. This arrangement allows customers to derive 64 kbps clear channels. This service is provided only on 1.544 Mbps high capacity channels between two customer designated premises and is subject to availability of facilities. This arrangement requires the customer-provided multiplexing equipment to be compatible with the B8ZS line code.
3.	Alternate Serving Wire Center provides high capacity channel terminations over an alternate route to a serving wire center other than that normally serving the customer's designated premises. The Telephone Company will designate the serving wire center to be used. The mileage used to determine the monthly rate for distance sensitive channel terminations is based on the airline distance directly between the customer's designated premises and the normal serving wire center for that premises. The mileage used to determine the monthly rate for channel mileage is based on the normal serving wire center associated with the customer designated premises as described in Section 7.5.2. This feature is not available with shared use digital high capacity services. Rates for this feature apply per point of termination and apply in addition to the channel termination and channel mileage rates applicable to the high capacity service itself.

7.2.8 High Capacity Service—44.736 Mbps	
A.	Availability— All regulations, terms and conditions, rates and charges applicable to high capacity 44.736 Mbps service and associated service discount plans are the same as those set forth in Bell Atlantic Telephone Companies Tariff FCC No. 11, Sections 5, 7 and 31 as they apply to intrastate access service in the state of Massachusetts.

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7. Special Access Service**7.2 Description of Special Access Services**

7.2.9 WATS Access Line (WAL) Service - Please refer to Section 21 for limitations on the availability of WATS Access Line (WAL) Service

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| A. | A WAL provides a channel for voice frequency transmission capability between a customer designated premises and a WSO. It is provided for use with FGB or FGD switched access service. WAL service is provided as an effective two-wire or effective four-wire transmission path. |
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7. Special Access Service

7.2 Description of Special Access Services

7.2.9 WATS Access Line (WAL) Service	
B.	The service provides a connection between a customer designated premises and a WSO associated with the closed end of 800 service, WATS or similar services.
C.	WAL service may, at the option of the customer, be arranged for originating calling only, terminating calling only or two-way calling. - WAL service arranged for originating calling only which is not equipped with the end office end user line service screening optional feature, or for two-way calling, is available from suitably equipped equal access WSO with FGD capability (refer to Sections 6 and 7.5.5). - WAL service arranged for two-way calling is not available with Telephone Company Centrex-CO service.
D.	WAL service is provided with either dial pulse or dual tone multifrequency address signaling and either loop start, ground start*, E&M or reverse battery* supervisory signaling. - The choice of the type of signaling is at the option of the customer and subject to the technical limitations in TR-NPL-000334. - Compatible channel interfaces are also specified in the technical reference.
E.	Certain other options associated with WAL services are provided as either WAL service, line termination or common switching optional features as defined in Section 6.
F.	Optional Features and Functions Central Office Bridging— Two-wire and four-wire Loss Deviation— The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB. Attenuation Distortion— The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +6.0 dB.
G.	Optional Features and Functions Return Loss expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL) is equal to or greater than— ERL - 13.0 dB and SRL - 6.0 dB. C-Message Noise— The maximum levels are as follows. - Less than 50 route miles C-message noise is 35 dBrnCO 51 to 100 route miles C-message noise is 37 dBrnCO 10 to 200 route miles C-message noise is 40 dBrnCO 201 to 400 route miles C-message noise is 43 dBrnCO 401 to 1000 route miles C-message noise is 45 dBrnCO

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* Ground start and Reverse Battery may not be provided over fiber facilities and are only available where suitable facilities exist.

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7.2.9	WATS Access Line (WAL) Service - Please refer to Section 21 for limitations on the availability of WATS Access Line (WAL) Service.
B.	The service provides a connection between a customer designated premises and a WSO associated with the closed end of 800 service, WATS or similar services.
C.	WAL service may, at the option of the customer, be arranged for originating calling only, terminating calling only or two-way calling. - WAL service arranged for originating calling only which is not equipped with the end office end user line service screening optional feature, or for two-way calling, is available from suitably equipped equal access WSO with FGD capability (refer to Sections 6 and 7.5.5). - WAL service arranged for two-way calling is not available with Telephone Company Centrex-CO service.
D.	WAL service is provided with either dial pulse or dual tone multifrequency address signaling and either loop start, ground start, E&M or reverse battery supervisory signaling. - The choice of the type of signaling is at the option of the customer and subject to the technical limitations in TR-NPL-000334. - Compatible channel interfaces are also specified in the technical reference.
E.	Certain other options associated with WAL services are provided as either WAL service, line termination or common switching optional features as defined in Section 6.
F.	Optional Features and Functions Central Office Bridging— Two-wire and four-wire Loss Deviation— The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB. Attenuation Distortion— The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +6.0 dB.
G.	Optional Features and Functions Return Loss expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL) is equal to or greater than— ERL - 13.0 dB and SRL - 6.0 dB. C-Message Noise— The maximum levels are as follows. - Less than 50 route miles C-message noise is 35 dBrnCO 51 to 100 route miles C-message noise is 37 dBrnCO 10 to 200 route miles C-message noise is 40 dBrnCO 201 to 400 route miles C-message noise is 43 dBrnCO 401 to 1000 route miles C-message noise is 45 dBrnCO

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7.3 Functional Components of Service

7.3.1 Channel Termination	
A.	The channel termination provides for the communications path between a customer designated premises and the serving wire center of that premises.
B.	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 POT and the type of signaling capability, if any, (the signaling capability itself is provided as an optional feature).

7.3.2 Channel Mileage	
A.	Channel mileage which is separated into mileage bands, provides for the transmission facilities between the following locations. 1. The serving wire centers associated with two customer designated premises. 2. The serving wire center associated with a customer designated premises and a WSO. 3. A serving wire center associated with a customer designated premises and a central office data voice multiplexer location. 4. A serving wire center associated with a customer designated premises and a Telephone Company hub. 5. Two Telephone Company hubs.

7.3.3 Optional Features and Functions	
A.	Optional features and functions may be added to 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. 1. These characteristics may be obtained by using various combinations of equipment. 2. 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. 3. Following are examples of some optional features and functions that are available. a. Signaling Capability b. Hubbing Functions c. Conditioning d. Transfer Arrangements.

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7.3 Functional Components of Service

7.3.3 Optional Features and Functions	
B.	Several optional features and functions are provided from Telephone Company serving wire centers which have been designated as Telephone Company hubs where bridging or multiplexing functions are performed.
1.	The bridging functions are performed to connect three or more customer designated premises in a multipoint arrangement.
2.	The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.
3.	NRS (refer to Section 19) allows the customer to reconfigure its special access services.

New England Telephone and Telegraph Company

7. Special Access Service

7.4 Rate Regulations

7.4.1 Types of Rates and Charges	
A.	Monthly Rates are flat recurring rates that apply each month or fraction thereof that a special access service is provided. For billing purposes each month is considered to have 30 days.
B.	Nonrecurring Charges (NRCs) are one-time charges that apply for specific work activity (i.e. installation or change to an existing service). The types of NRCs that apply for special access service are installation of service, installation of optional features and functions and service rearrangements. 1. Installation of Service— Channel termination NRCs apply to each service installed. a. In addition, a mid link channel mileage NRC applies to channel mileage between two Telephone Company hubs where multiplexing and/or NRS functions are performed. 2. Installation of Optional Features and Functions— NRCs apply for the installation of some of the optional features and functions available with special access service. Except for 1.544 Mbps clear channel capability, the charge applies whether the feature or function is installed coincident with the initial installation of service or at any time subsequent to the installation of the service. The charge for 1.544 Mbps high capacity clear channel capability applies only when the feature is installed at any time subsequent to the installation of service. The NRCs apply for the following optional features. a. Voice Grade Data Capability b. Voice Grade Telephoto Capability c. 1.544 Mbps High Capacity Clear Channel Capability d. 1.544 Mbps High Capacity Central Office Multiplexing e. DDSII Secondary Channel Capability 3. Service Rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements as set forth in Section 3.2.1, or a change in the physical location of the point of termination at a customer designated premises. Changes in the type of service or channel are treated as discontinuance of existing service and installation of new service. Changes in the physical location of the point of termination are treated as moves. The charge to the customer for the service rearrangement is dependent on whether the change is administrative only in nature or involves actual physical change to the service. The following administrative changes will be made without charge to the customer. a. Change of customer name b. 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 c. Change in billing data (name, address, or contact name or telephone number) d. Change of agency authorization

New England Telephone and Telegraph Company

7. Special Access Service

7.4 Rate Regulations

7.4.1 Types of Rates and Charges	
B.3. (Continued)	
e.	Change of customer circuit identification
f.	Change of billing account number
g.	Change of customer test line number
h.	Change of customer or customer's end user contact name or telephone number
i.	Change of jurisdiction
4.	Other Service Rearrangements for which charges apply are as follows.
a.	If the change involves the addition of another channel termination to an existing multipoint service, the NRC for the channel termination rate element will apply. The charge will apply only for the channel termination that is being added.
b.	If the change involves the addition of an optional feature or function which has a separate NRC, that NRC will apply.
c.	If the change involves changing the type of signaling on a voice grade service, a charge equal to the voice grade channel termination rate element NRC will apply. The charge will apply per channel termination affected.
5.	Other Service Rearrangements for which charges apply are as follows.
a.	If the change involves changing from one fractional T-1 arrangement to another, (e.g. the customer has an eight channel arrangement and increases to a twelve channel arrangement or has a twelve channel arrangement and decreases to an eight channel arrangement), a service rearrangement charge will apply.
b.	If the change involves changing DDSII speeds (e.g., from 4.8 kbps to 19.2 kbps) with no change of facilities, or changing the termination of a multistation arrangement from one circuit to another in the same serving wire center, a service rearrangement charge will apply.
c.	For all other changes, including the addition of optional features without separate NRCs, a charge equal to a channel termination rate element NRC will apply. Only one such charge will apply per service, per change.
6.	Moves involve a change in the physical location of one of the following: [a] the POT at the customer's designated premises, or [b] the customer's designated premises. The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.
a.	Moves Within The Same Building— If 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 NRC (i.e., installation) for the service termination affected. There will be no change in the minimum period or service discount plan requirements.

New England Telephone and Telegraph Company

7. Special Access Service
7.4 Rate Regulations

7.4.1 Types of Rates and Charges	
B.6. (Continued)	
b.	Moves To A Different Building— Moves to a different building will be treated as a discontinuance and start of service and all associated NRCs will apply. New minimum period and/or service discount plan requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period and/or termination liability charges for the discontinued service.

New England Telephone and Telegraph Company

7. Special Access Service
7.5 Application of Rates and Charges

7.5.1 Channel Termination	
A.	One channel termination charge applies per customer designated premises at which the channel is terminated.
1.	This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.
B.	Channel termination for certain special access services (e.g. 1.544 Mbps service) consists of a fixed and a per one-half mile rate.
1.	A minimum fixed and one per one-half mile rate always applies.
2.	The mileage used to determine the monthly rate for distance sensitive channel terminations is the airline distance measured in increments of one-half mile (a fractional one-half mile increment being considered as a full one-half mile increment), directly between the customers premises and the serving wire center.
3.	The mileage measurement is determined by utilizing exchange maps located in designated Telephone Company business offices for such purposes.

7.5.2 Channel Mileage	
A.	Channel mileage is separated into mileage bands. There are two rates that apply for each band, (i.e., a fixed rate per band and a rate per mile, per band). The serving wire center associated with a customer designated premises is the serving wire center from which the customer designated premises would normally obtain dial tone.
1.	Channel mileage is calculated on the airline distance between the locations involved, such as the following.
a.	The serving wire centers associated with two customer designated premises (except as set forth in Section 3.4.1E)
b.	A serving wire center associated with a customer designated premises and a network controller location or a Telephone Company hub
c.	A serving wire center associated with a customer designated premises and a WSO
d.	A serving wire center associated with a customer designated premises and a central office data voice multiplexer location
e.	Two Telephone Company hubs.
2.	When determining the rate to be billed, if the calculation results in a fraction of a mile, rounding up to the next whole mile before determining the mileage band and applying the rates is required. The billed rate is determined in the following manner.
a.	Compute mileage using the V&H coordinates method, as set forth in the NECA Tariff FCC No. 4
b.	Determine the mileage band into which the computed mileage falls
c.	Apply the appropriate special access rates.

New England Telephone and Telegraph Company

7. Special Access Service**7.5 Application of Rates and Charges**

7.5.2 Channel Mileage	
B.	A mid link charge (NRC) applies to channel mileage between two Telephone Company hubs where multiplexing and/or NRS functions are performed. The mid link NRC applies to high capacity 1.544 Mbps service.
C.	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).
1.	When any service is routed through a hub for purposes other than customer specified bridging, multiplexing or vertical service [i.e., NRS or FRS, (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.

7.5.3 Optional Features and Functions	
A.	Transfer Arrangement— For VG optional feature transfer arrangement, the key activated control channel is rated as a metallic channel termination and channel mileage (where mileage is incurred). In such cases, the appropriate USOCs are T6EME and 1I5MX respectively. The dial-up option requires the customer to order the controller arrangement (refer to Section 13).
1.	For the four and five port arrangement including control channel termination rate elements, an additional channel termination charge will apply whenever a spare channel is configured as a channel termination to the customer's designated premises. Additional channel mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.
B.	Loop Transfer Arrangement— For DDS optional feature loop transfer arrangement, the key activated control channel is rated as a metallic channel termination and channel mileage (where mileage is incurred). In such cases, the appropriate USOCs are T6EME and 1I5MX respectively. The dial-up option requires the customer to order the controller arrangement (refer to Section 13).
1.	For the four port arrangement rate element, an additional channel termination charge will apply whenever a spare channel is configured as a channel termination to the customer's designated premises. Additional channel mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.

Verizon New England Inc.

7. Special Access Service

7.5 Application of Rates and Charges

7.5.4 Shared Use	
A.	Shared use occurs when switched access, including CCSA, is provided over the same High Capacity Special Access facility through a common interface. (For purposes of this section, the term switched access service includes CCSA). The Shared Use facility will be ordered, provided and rated only as special access service (i.e., channel termination, channel mileage as appropriate, and multiplexer), regardless of whether individual channels of the Shared Use facility are used for Special Access Service, Switched Access Service, or any other type of service. The practice known as "ratcheting" (to apply non-special access rates to the Shared Use facility on a proportional basis) shall not apply in any circumstances. Shared use of Switched Access facilities (i.e., Special Access Services provided over Switched Access facilities) is not allowed.
1.	The NRC that applies when the shared use facility is installed will be the NRC associated with the appropriate special access high capacity channel termination.
2.	Individual service (i.e., switched or special access) NRCs will not apply to the individual channels of the shared use facility.
B.	
1.	
C.	
D.	Where special access service is provided utilizing a channel of the shared use facility to the hub, high capacity rates and charges will apply for the facility to the hub and individual service rates and charges will apply from the hub to the customer designated premises.
1.	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 grade, etc.). The applicable rates and charges will include a channel termination and channel mileage, if applicable, rates and charges for optional features and functions if any, will apply.
2.	
E.	The customer must place an order for each individual switched or special access service utilizing the special access Shared Use facilities and specify the channel assignment for each such service.

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7. Special Access Service

7.5 Application of Rates and Charges

7.5.5	WATS Access Line (WAL) Service - Please refer to Section 21 for limitations on the availability of WATS Access Line (WAL) Service.	(N) (N)
A.	The following regulations apply to WAL service for use with FGB and FGD arranged for originating only calling, not equipped with the end office end user line service screening optional feature, or arranged for two-way calling, and to WAL service for use with FGB arranged for terminating only calling. 1. When the WSO which normally serves the customer designated premises (normal WSO) is not a suitably equipped WSO equipped with FGD capability, the WAL service will be provided from the nearest WSO so equipped. Channel mileage charges, if applicable, will apply only for the distance between the serving wire center of the customer designated premises and the normal WSO. 2. When the normal WSO is modified to be a suitably equipped WSO equipped with FGD capability, the WAL service will be rearranged to be provided from the normal WSO. No charge will apply for such rearrangement. At the option of the customer however, the WAL service may continue to be provided from other than the normal WSO. Channel mileage will then apply for the distance between the serving wire center of the customer designated premises and the serving WSO.	
7.5.6	Extension Service for WATS Access Line (WAL) Service - Please refer to Section 21 for limitations on the availability of WATS Access Line (WAL) Service.	(N) (N)
A.	Extensions (i.e., additional termination of a WAL at another building in the same or a different LATA) are rated as follows. A WAL channel termination charge applies for the communications path between the customer designated premises and the serving wire center of that premises. In addition, where the wire center for the customer designated premises is different from the serving wire center for the customer premises where the WAL is terminated, channel mileage charges apply for the transmission facilities between the serving wire center of the customer designated premises and the WSO.	

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7. Special Access Service
7.6 Service Discount Plan

7.6.1 General	
A.	For the services described herein, the location involved may be two customer designated premises, or a customer designated premises and a Telephone Company hub where bridging or multiplexing are performed or two Telephone Company hubs where multiplexing or NRS functions are performed.
B.	The customer has the option of requesting a service discount plan for some or all applicable services at any time. The terms and conditions of the service discount plan will be specified in an agreement signed with the customer. When a customer has more than one service discount plan, the rate steps apply separately to the channels in each service discount plan.
1.	When the discount is requested to be provided coincident with the connection of new services, the discount is effective with the establishment of service.
2.	When the discount is requested to be provided on existing services, the effective date of the discount is the first bill day following the receipt of the access order requesting the discount.
C.	At the end of the commitment period, the customer will have the option of subscribing to any then effective discount plans or retaining the service under the standard rates in effect at that time. If the customer does not notify the Telephone Company of its choice, standard rates will be applied upon expiration of the commitment period.

7.6.2 High Capacity 1.544 Mbps Service	
A.	For customers with one or more 1.544 Mbps high capacity service and service commitments of three or five years, a fixed percentage discount applies to the NRCs associated with the channel termination element. At the option of the customer, the NRCs may be billed to the customer over the commitment period in monthly installments in accordance with the principles of the Time Value of Money.
1.	As part of that plan, the customer's monthly recurring charges associated with the channel termination, channel mileage per mile rate element, and the optional feature alternate serving wire center, will be billed at the service discount plan rate.
2.	If the rate changes during the customer's commitment period to a rate that is lower than the service discount rate provided to the customer, the customer will be billed at the lower rate.

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7. Special Access Service

7.6 Service Discount Plan

7.6.3 DDSII	
A.	For customers with one or more DDSII channels and service commitments of three or five years, a fixed percentage discount applies to the NRCs associated with the channel termination element. At the option of the customer, the NRCs may be billed to the customer over the commitment period in monthly installments in accordance with the principles of the Time Value of Money.
1.	As part of that plan, the customer's monthly recurring charges associated with the four-wire channel termination, channel mileage fixed and per mile rate elements, and the optional features multistation bridging and secondary channel capability will be billed at the service discount plan rate.
2.	If the rate changes during the customer's commitment period to a rate that is lower than the service discount plan rate provided to the customer, the customer will be billed at the lower rate.

7.6.4 Reserved for Future Use		(T)
A.		(D)
B.		
1.		
2.		
C.		(D)

7.6.5 Termination Liability	
A.	If a customer terminates service or cancels a service discount plan before the expiration of a commitment period the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges also apply in addition to the termination liability charge to the discounted rates and charges for each channel.
1.	The termination liability charge covers a period of time from the end of the minimum service period to the end of a commitment period specified under a service discount plan.

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7. Special Access Service
7.6 Service Discount Plan

7.6.5 Termination Liability	
A. (Continued)	
2.	The termination liability charge for recurring charges is equal to 50% of the present value of the remaining discounted monthly rates per channel for each remaining month of the commitment period. The termination liability charge for NRCs is equal to 100% of the present value of the remaining discounted NRCs per channel for each remaining month of the commitment period. The termination liability charge(s) is determined in accordance with the principles of The Time Value of Money equivalency factor based on a monthly effective interest rate.
3.	In the case of shared use, the termination liability charge is based on the discounted monthly rates prior to any reductions applied to those rates for the switched access service provided on the high capacity facility.
B.	When a customer disconnects some or all discounted DDSII or high capacity special access channels in order to replace them with other Telephone Company provided DDSII or 1.544 Mbps high capacity special access channels, the appropriate minimum service period charges would apply. The termination liability does not apply provided that the following conditions have been met.
1.	The orders for the new channels and the disconnect of the existing channels are place with The Telephone Company at the same time, and,
2.	The new DDSII or 1.544 Mbps high capacity special access channels have a total capacity equal to or greater than the total capacity of the channels being disconnected.
C.	For DDSII not used in conjunction with NRS, no termination liability charge applies to the following changes.
1.	A change from two-point to multipoint or from multipoint to two-point.
2.	A change in transmission speed.
D.	When a customer disconnects some or all discounted DDSII or high capacity special access channels in order to replace them with NRS and other Telephone Company provided DDSII or high capacity special access channels, and/or when a customer disconnects some or all discounted DDSII network access ports in order to replace them with Telephone Company provided high capacity special access network access ports, the appropriate minimum service period charges would apply. The termination liability does not apply provided that the following conditions are met.
1.	The orders for the new services or ports and the disconnect of the existing services or ports are placed with the Telephone Company at the same time, and
2.	The new special access service(s) have a total capacity equal to or greater than the total capacity of the services being disconnected, and
3.	The new network access ports are provided on the same digital cross-connect system as the existing network access ports were provided.

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Robert Mudge
Vice President-MA

7. Special Access Service
7.6 Service Discount Plan

7.6.5 Termination Liability

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| E. | For DDSII, a customer whose initial service discount plan includes 200 or more channel terminations may decrease the number of channel terminations over the life of the service discount plan by 20% without incurring a termination charge. The total number of channel terminations that may be removed without a termination charge during the life of the service discount plan may not exceed 20% of the total number of channel terminations that had been installed. |
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7.6.6 Addition of Service

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| A. | If the customer increases service or increases the number of network access ports for a Network Reconfiguration Service prior to the expiration of a commitment period, the customer may elect to include the existing services with the new services under a new service discount plan. The new commitment period must be equal to or greater than the existing commitment period. Under this arrangement the customer would not be subject to the termination liability charge of the prior agreement. The customer also has the option of subscribing to the additional services under standard rates, or under a separate service discount plan. |
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7.6.7 Extension of the Service Discount Plan

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| A. | A customer, may at any time prior to the extension of the selected commitment period for an existing service discount plan, change to a service discount plan which is equal to or greater in length than the existing commitment period at the then effective discount percentage. No termination liability charges will apply for any services or network access ports extended under the new commitment period. The monthly rates applicable for the new commitment period will apply effective with the next bill day following the request for the change. |
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