

ACCESS SERVICE

7. Special Access Service

7.1 General

Special Access Service provides a transmission path to connect customer designated premises*, directly, or through a Telephone Company hub or hubs where bridging or multiplexing functions are performed, or to connect a customer designated premises and a WATS Serving Office, or to connect a customer designated premises to an ADSL 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 or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate.

Special Access Service purchased from the provisions of this tariff may be commingled with unbundled network elements, where available, or unbundled network element combinations, where available, 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). Unbundled elements and commingling are not available in designated rural CenturyTel Operating companies where a 251 (f) exemption is in effect.

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7.1.1 Channel Types

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

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

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

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

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

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.1 Channel Types (Cont'd)

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, from 50 to 8000 Hz, or from 50 to 15000 Hz.

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

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

Synchronous Optical - a high speed channel for the transmission of synchronous full duplex data over optical fiber at rates of 155.52 Mbps , 622.08 Mbps or 2.4 Gbts.

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.1 Channel Types (Cont'd)

Detailed descriptions of each of the channel types are provided in 7.4 through 7.10 following.

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps, and 44.736 Mbps) to Telephone Company hubs for multiplexing to individual channels of a lower capacity or bandwidth.

Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility, are set forth in 7.6 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 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 two 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 or hubs. Optional features may be added to either the 1.544 Mbps or the Voice Grade channels.

Synchronous Optical Channel Service provides the customer with the option of ordering Add/Drop Multiplexing at a suitably equipped wire center. This allows lower level signals to be added or dropped from a high speed optical carrier channel for delivery to a customer premises. A description of Add/Drop Multiplexing is set forth in 7.10.3 (C) following.

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.2 Service Descriptions

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

Service Designator Codes

Metallic	MT	
Telegraph Grade	TG	
Voice	VG	
Program Audio	AP	
Digital Data	DA	
High Capacity	DS	(T)
Synchronous Optical	OC	(T)

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, optional features and functions are described in this section. Channel interfaces are described in 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 7.4 through 7.10 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 hubs, or between a customer designated premises and a WATS Serving Office, or between a customer designated premises and an ADSL Access Service Connection Point or between a customer designated premises and a wire center equipped with a Public Packet Data Network Service.

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7. Special Access Service (Cont'd)

7.1 General (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 15.2 following.
- (B) Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. On a multi point 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 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 15.2 following with the optional feature or function listed down the left side and the technical specifications package listed across the top.

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.2 Service Descriptions (Cont'd)

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

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

Metallic	TR-NPL-000336
Telegraph Grade	TR-NPL-000336
Voice Grade	TR-TSY-000335; PUB 41004, Table 4
Program Audio	TR-NPL-000337 and associated Addendum
Digital Data	TR-NWT-000341
For 2.4,4.8,9.6&56.0 Kbps	BellCore Pub 62310,(MDP-326-726)
For 19.2 Kbps	INC Bulletin CB-INC-100
For 64.0 Kbps	AT&T PUB 62310
High Capacity	TR-INS-000342; TR-NPL-000054; PUB 62411
Synchronous Optical	GR-253-CORE
For OC3, OC12, OC48	GR-1374-CORE ANSI T1.105 ANSI T1.102

7.1.3 Service Configurations

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) Two-Point Service

A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where multiplexing functions are performed, or a customer designated premises and an ADSL 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) and a WATS Serving Office (WSO). (C)
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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

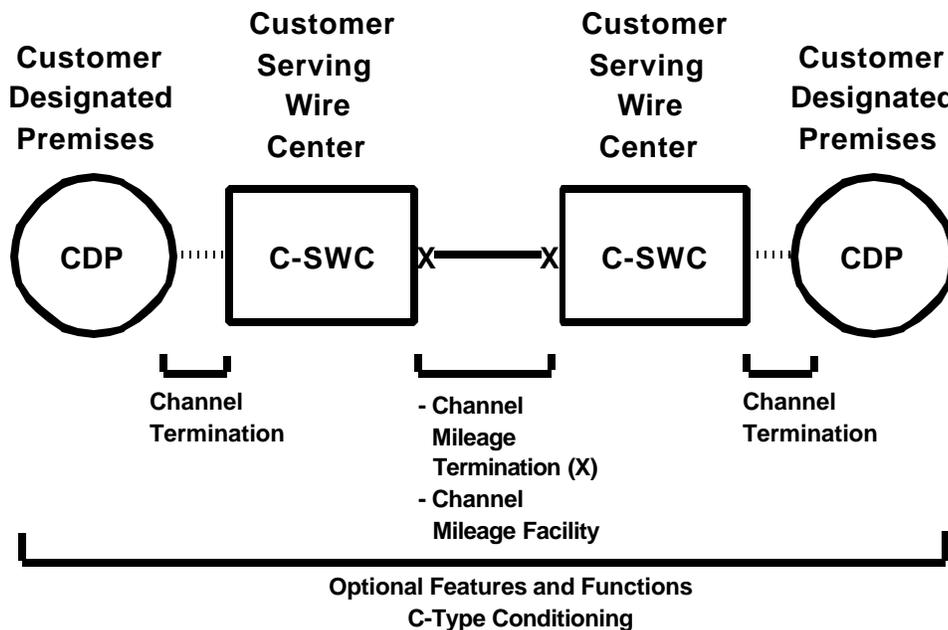
(A) Two-Point Service (Cont'd)

Applicable rate elements are:

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

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

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



Applicable rate elements are:

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

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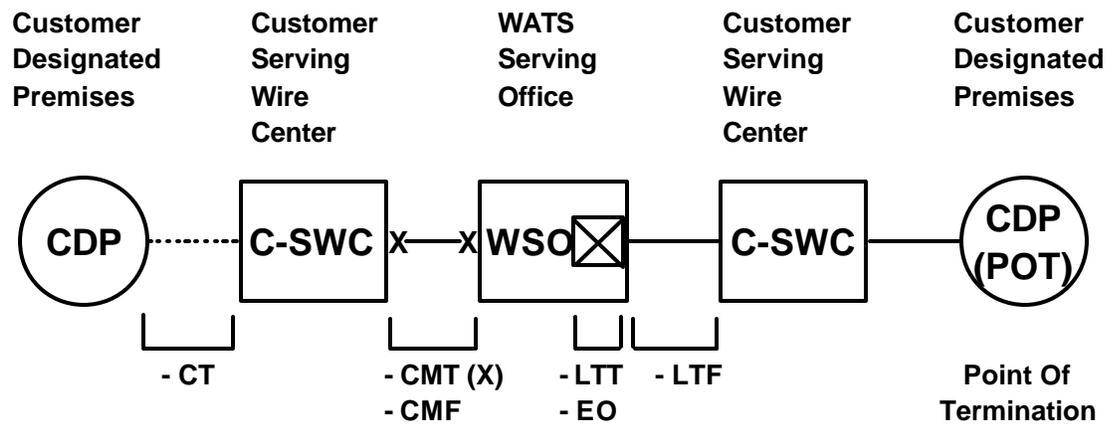
7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(A) Two-Point Service (Cont'd)

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



Special Access

CT - Channel Termination
CMT - Channel Mileage Termination
CMF - Channel Mileage Facility

Switched Access

LTT - Local Transport Termination
EO - End Office Elements
LTF - Local Transport Facility

Applicable rate elements for Special Access are:

- Channel Termination (and Mileage charge, if applicable)
- Channel Mileage
2 Channel Mileage Terminations plus 1 section, 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 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service

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

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 7.1.2 preceding and 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 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).

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7. Special Access Service (Cont'd)

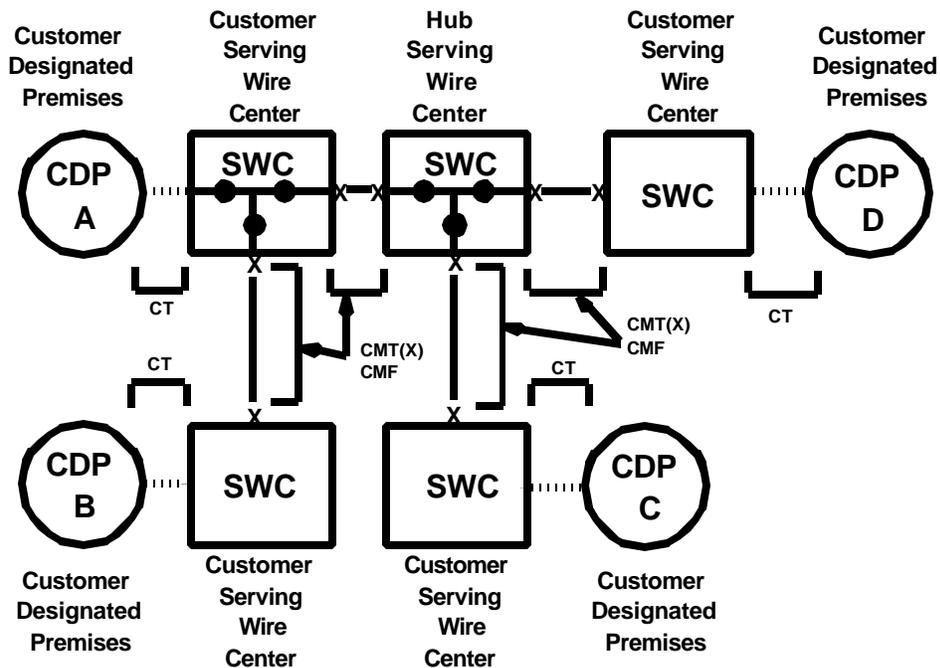
7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service (Cont'd)

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

Example: Voice Grade multipoint service connecting four customer designated premises (CDP) via two customer specified bridging hubs.



CT - Channel Termination (and Mileage charge, if applicable)

CMT - Channel Mileage Termination

CMF - Channel Mileage Facility

o - Bridging Port

Applicable rate elements are:

- Channel Terminations (4 applicable)
- Channel Mileage
 - o 2 Channel Mileage Terminations per Channel Mileage Facility section for a total of 8, plus o 4 sections, Channel Mileage Facility per mile
- Bridging Optional Feature (6 applicable, i.e., each bridge port)

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7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(C) Synchronous Optical Channel Service

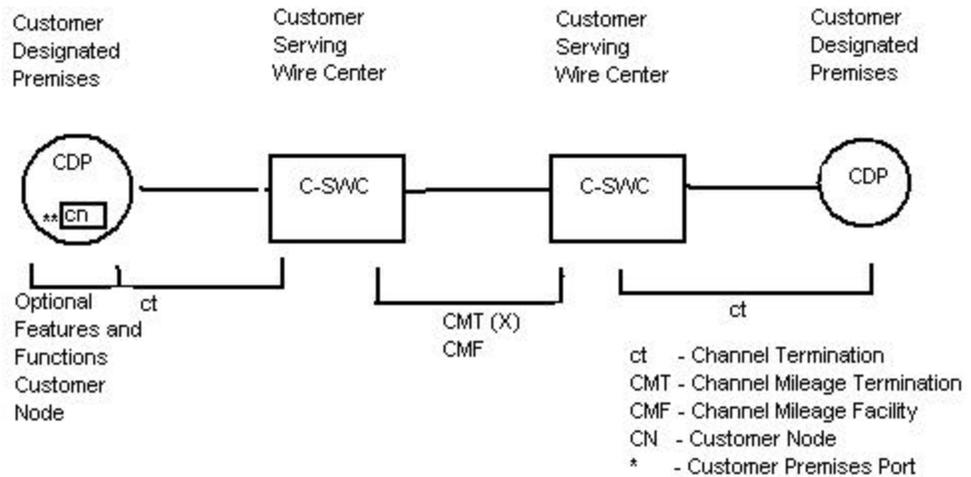
A Synchronous Optical Channel Service connects two customer designated premises or a customer designated premises and a DSL Access Service Connection Point, or a wire center equipped with Add/Drop Multiplexing, or a customer designated premises and a wire center equipped with an Asynchronous Transfer Mode Cell Relay Access Service. The Connection is provided via a high speed optical carrier communication path delivering an optical handoff.

(C)
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(C)

Applicable rate elements are:

- Channel Terminations
- Channel Mileage (where applicable)
- Optional Features and Functions

(1) The following diagram depicts a Synchronous Optical Channel Service connecting two customer designated premises (CPD). The optional Feature and Function of a Customer Node was ordered at one CPD.



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7.Special Access Service (Cont'd)

7.1 General(Cont'd)

7.1.3 Service Configurations (Cont'd)

(C) Synchronous Optical Channel Service (Cont'd)

(1) (Cont'd)

Applicable rate elements are:

- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
- 2 Channel Mileage Terminations plus
- 1 Section, Channel Mileage Facility per mile
- Customer Node Optional Feature
- (1 customer Node applicable and three Customer Premises Ports applicable, i.e., each port)

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7. Special Access Service (Cont'd)

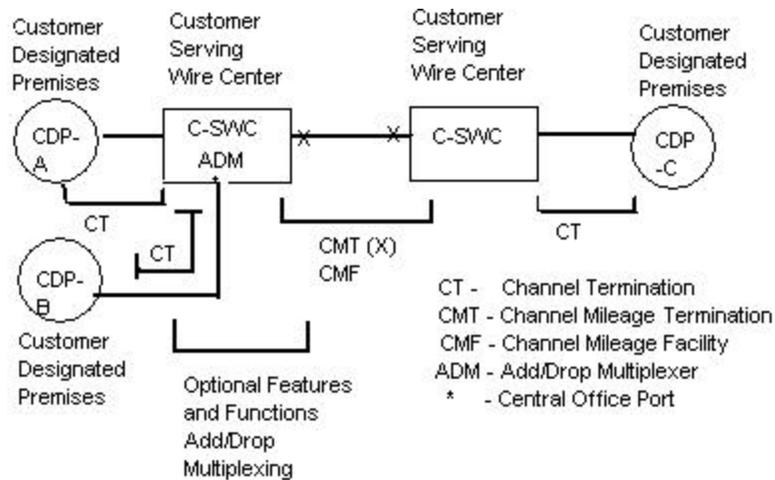
7.1 General (Cont'd)

7.1.3 Service Configurations (Cont'd)

(C) Synchronous Optical Channel Service (Cont'd)

(N)

- (2) The following diagram depicts a Synchronous Optical Channel Service connecting three Customer Designated Premises. CDP-A and CDP-B are connected using an Add/Drop Multiplexer. At the Add/Drop Multiplexer, the customer may drop off lower speed special access services. Rates and charges are set forth in 17.5.8 and 17.6.9 following.



(N)

ACCESS SERVICE

7.Special Access Service (Cont'd)

7.1 General(Cont'd)

7.1.3 Service Configurations (Cont'd)

(C) Synchronous Optical Channel Service (Cont'd)
(2) (Cont'd)

Applicable rate elements are:

- Channel Terminations (applicable one (1) per CPD)
- Channel Termination Mileage Charge if applicable
- Channel Mileage
- Channel Mileage Termination (2 applicable)
- 1 Section, Channel Mileage Facility per mile
- Add/Drop Multiplexing Optional Feature
(1 Central Office Port applicable, i.e., each port)

(N)

(N)

ACCESS SERVICE

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.

The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12. 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 Features and Functions (if any)].

7.1.5 Special Facilities Routing

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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.1 General (Cont'd)

7.1.7 Acceptance Testing

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

- (A) For Voice Grade analog services, the acceptance test will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise, and C-message noise when these parameters are applicable and specified in the order of service. 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, and Program Audio) 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 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 Change Charges, Cancellation Charges, etc.).

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations

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

7.2.1 Rate Categories

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

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

(A) Channel Terminations

The Channel Termination rate category recovers the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the 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 communication 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. For a Special Access Digital Data Service 56.0 or 64.0 Kbps Bit Rate or 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 High Capacity Service or for a 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. (C)

For a Metallic Service connecting to a DSL Access Service Connection Point as described in Section 8, following, there will be a charge for two Channel Terminations for each DSL Access Service Connection function ordered.

For DS1, DS3 and SONET Service, a Channel Termination Mileage charge applies for channel terminations over three (3) miles.

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7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(A) Channel Terminations (Cont'd)

For DS3 High Capacity Service, the Channel Termination rates are made up of the DS3 Capacity interface rate and the DS3 Channel Installed rate. The Capacity Interface rate is dependent upon the capacity ordered (i.e., Capacity Interface of 1, 3, 6 or 12) and is applicable at each customer designated premises. The capacity ordered is the maximum number of DS3 services that can be terminated on a given service at the customer designated premises (e.g., a capacity of 3 can terminate 1, 2, or 3 DS3 services). One DS3 Channel Installed rate applies per customer designated premises at which the channel is terminated for each DS3 channel that is ordered. These charges will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

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 an ADSL Access Service Connection Point as described in Section 8, following, there will be a charge for only one Channel Termination.

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(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (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 the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company hub, 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) Channel Mileage Facility

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s) or between the Telephone Company serving wire center and another wire center equipped with a Public Packet Data Network Service.

(C)
(C)

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 serving 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 Asynchronous Transfer Mode Cell Relay Access Service.

(C)
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(C)

(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). The Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and Telephone Company hub where the channel is terminated. If the Channel Mileage is between Telephone Company bridging hubs, the Channel Mileage Termination rate will apply per Telephone

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7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.1 Rate Categories (Cont'd)

(B) Channel Mileage (Cont'd)

(2) Channel Mileage Termination (Cont'd)

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. If the Channel Mileage is between the serving wire center for a customer designated premises and another wire center equipped for Frame Relay Access 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 Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) and another telephone company ATM-equipped serving wire center, no Channel Mileage Termination Rate will apply. (N)

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 with 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 with Add/Drop Multiplexing. (N)

When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

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7. Special Access Service (Cont'd)

7.2 Rate Regulations (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 7.4 through 7.10 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 multi point 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 Rate Regulations (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) Monthly Rates

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

(B) Daily Rates

Daily rates are recurring rates that apply to each 24 hour period or fraction thereof that a Program Audio 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 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.

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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

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 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.

(2) Installation of Optional Features and Functions

When optional features and functions are installed coincident with the initial installation of service, no separate nonrecurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in Section 17 following will apply per order.

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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)

(3) Service Rearrangements

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

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

Changes in the type of 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 2.1.2(A) preceding where there is no change in facilities or arrangements, the change will be treated as an administrative change.

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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)

(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 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 following.

ACCESS SERVICE

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)

(3) Service Rearrangements (Cont'd)

- 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 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 non-recurring charges will apply.

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 specified in Section 17 following.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.3 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 services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

7.2.4 Minimum Periods

The minimum service period for all services except part-time Program Audio services and 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 2.4.1(F) preceding. The minimum service period for part-time 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. (C)
(C)
(C)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.5 Mileage Measurement

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, (C)
- a serving wire center associated with a customer designated premises and an ADSL 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.

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 2.4.7 preceding.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.5 Mileage Measurement (Cont'd)

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 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,
- ADM equipped wire center to a customer designated premises serving wire center.

(N)
|
(N)

7.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services (i.e., DS1, or DS3) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., Telegraph, Voice, Program Audio, etc.).

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.6 Facility Hubs (Cont'd)

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. The customer will be billed for a Voice Grade or a High Capacity Channel Termination, Channel Mileage (when applicable), and the multiplexer at the time the service is installed. Individual service rates (by service type) will apply for a Channel Termination and additional Channel Mileage (as required) for each channelized service. These will be billed to the customer as each individual service is installed.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (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 44.736 Mbps High Capacity service is de-multiplexed to 28 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 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 Section 17 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 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.7 Mixed Use Analog and Digital High Capacity Services

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

Except as noted above, the High Capacity facility will be ordered, provided and rated as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, and Multiplexing Arrangement). 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 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.7 Mixed Use Analog and Digital High Capacity Services (Cont'd)

As each individual channel is activated for Switched Access Service, the High Capacity 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, etc.).

Switched Access Service rates and charges, as set forth in Section 17 following, will apply for each channel that is used to provide a Switched Access Service. The Switched Access Service Entrance Facility charge, if applicable, will be reduced by multiplying its rate by 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 and Multiplexing Charges will be reduced by multiplying their respective rates by the ratio of derived Direct Trunked Transport channels to the total number of channels that can be derived.

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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Synchronous Optical Channel Service Optional Rate Plan

(N)

The Synchronous Optical Channel Service Optional Rate Plan offers a Term Discount. The Term Discount applies to Channel Terminations, Channel Mileage and Optional Features and Functions monthly rates, as set forth following. The Term Discount percentages for the Synchronous Optical Channel Service Term Discount are set forth in 17.6.9 (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, OC12 and OC48 Synchronous Optical Channel Service may be ordered at the customer's option on a monthly basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years).

The minimum service period for all Term Discounts 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 rates as set forth in 17.6.9 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 increase percentage will be applied automatically to the remainder of the current Term Discount period.

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Optional Rate Plan (Cont'd)

Synchronous Optical Channel Service Optional Rate Plan (Cont'd)

(N)

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 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 rate commitment term (i.e., all 36 months or 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 OC3/OC12 or OC48 Synchronous Optical Channel Service rate elements are those Channel Terminations, Channel Mileage Facility, Channel Mileage Terminations, Customer Nodes, Customer Premises Port 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 OC3, OC12 or OC48 included in a Term Discount plan remains constant, customer requests to install and disconnect OC3, OC12 or OC48 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 (3) following will not apply.

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Optional Rate Plan (Cont'd)

Synchronous Optical Channel Service Optional Rate Plan (Cont'd)

(N)

(1) Upgrades in Term Discounts

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.

(2) Upgrades in Capacity (OC3 to OC12 and/or OC48)

If the customer chooses to upgrade a service under the Term Discount rate plan to a higher capacity (i.e., OC3 to OC12 and/or OC48), discontinuance charges will not apply, provided all of the following conditions are met:

- the customer's order for the disconnect of the existing OC3/OC12 Service and the installation of the new OC12/OC48 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/ OC12 Service must reference the OC12/ OC 48 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.

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Optional Rate Plan (Cont'd)

Synchronous Optical Channel Service Optional Rate Plan (Cont'd)

(2) Upgrades in Capacity OC3 to OC12 and/or OC48 (Cont'd)

(N)

A new minimum service period applies to all upgrades. Nonrecurring charges will not be assessed when an existing OC3, OC12 and/or OC48 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 and/or OC12 Service under the Term Discount plan to an OC12 and/or OC48 Service and move the service to a new customer location(s) within the same state and LATA, and when the service is provided by the same Telephone Company, discontinuance charges will not apply.

(N)

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ACCESS SERVICE

7. Special Access Service (Cont'd)

7.2 Rate Regulations (Cont'd)

7.2.8 Optional Rate Plan (Cont'd)

Synchronous Optical Channel Service Optional Rate Plan (Cont'd)

(N)

(3) Discontinuance of Service

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 for the OC3 service and fifty percent for the OC12 or OC48 service, 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 15% for OC3 Service and fifty percent for OC12 or OC48 Service, of the total undiscounted monthly charges will apply to the remaining portion of the discount 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.

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.3 Surcharge for Special Access Service

7.3.1 General

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

7.3.2 Application

- (A) The Special 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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.3 Surcharge for Special Access Service (Cont'd)

7.3.2 Application (Cont'd)

(B) (Cont'd)

- (5) a termination that interconnects either directly or indirectly to the local exchange network where the usage is subject to Carrier Common Line charges such as, where the Special Access Service accesses only FGA and no local exchange lines, or Special Access Service between customer points of termination, or Special Access Service connecting CCSA or CCSA-type equipment (inter-machine trunks); or
- (6) a termination that the customer certifies to the Telephone Company is not connected to a PBX or other device which interconnects the Special Access Service to a local exchange subscriber line.

7.3.3 Exemption of Special Access Service

- (A) Special Access Services which are terminated as set forth in 7.3.2(B) preceding will be exempted from the Special Access Surcharge if the customer provides the Telephone Company with written exemption certification. The certification may be provided to the Telephone Company as follows:
- at the time the Special Access Service is ordered or installed;
 - at such time as the service is re-terminated to a device which does not interconnect the service to local exchange facilities; or
 - at such time as the service becomes associated with a Switched Access Service that is subject to Carrier Common Line Charges.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.3 Surcharge for Special Access Service (Cont'd)

7.3.3 Exemption of Special Access Service (Cont'd)

- (B) The exemption certification is to be provided by the customer ordering the service. The certification must be signed by the customer or authorized representative and include the category of exemption, as set forth in 7.3.2(B) preceding, for each termination, and the date which the exemption is effective.
- (C) The customer shall also notify the Telephone Company when an exempted Special Access Service is changed or reterminated such that the exemption is no longer applicable.
- (D) The Telephone Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Telephone Company may withhold exemption of the service until the questions are resolved.

7.3.4 Rate Regulations

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

<u>Special Access Service</u>	<u>Voice Grade Equivalent</u>		<u>Surcharge</u>		<u>Monthly Charge</u>
DS1	24	x	\$25	=	\$600.00

The preceding example illustrates the maximum number of surcharges applicable to a DS1. If the customer claims exemption(s) as set forth in 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.3 Surcharge for Special Access Service (Cont'd)

7.3.4 Rate Regulations (Cont'd)

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

The Telephone Company will cease billing the Special Access Surcharge when certification, as set forth in 7.3.3. preceding, is received. If the status of the Special Access Service was 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.

ACCESS SERVICE

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 following.

7.4.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(A) following. Compatible network channel interfaces are set forth in 15.2.2(C)(1) following.

7.4.3 Optional Features and Functions

Central Office Bridging Capability

- (A) 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.
- (B) Series Bridging of up to 26 customer designated premises.

The table set forth in 15.2.1(A) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.4 Metallic Service

7.4.3 Optional Features and Functions (Cont'd)

(C) DSL Access Service Connection

- (1) 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 Technical Reference ANSI T1.413-1998. 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, Part 3, Clause 14 for 10BASE-T and Clauses 21 and 29 for 100BASE-T.

Rates and charges for the 10Base-T and 100BASE-T DSL Access Service Connection functions are as set forth in Section 17.5.3, 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 the DSL Access Service Connection Point.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.5 Telegraph Grade Service

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 following.

7.5.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(B) following.
Compatible network channel interfaces are set forth in 15.2.2(C)(2) following.

7.5.3 Optional Features and Functions

Telegraph Bridging (two-wire and four-wire)

The table set forth in 15.2.1(B) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

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 as two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Telephone Company hub or hubs, or between a customer designated premises and a WATS Serving Office (WSO).

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

Rates and charges for Special Access Voice Grade Service are as set forth in Section 17 following.

7.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(C) following. Compatible network channel interfaces are set forth in 15.2.2(C)(3) following.

7.6.3 Optional Features and Functions

(A) Central Office Bridging Capability

- (1) Voice Bridging (two-wire and four-wire)
- (2) Data Bridging (two-wire and four-wire)
- (3) Telephoto Bridging (two-wire and four-wire)
- (4) DATAPHONE Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(A) Central Office Bridging Capability (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 following.

(B) Central Office Multiplexing

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

The rate for this option is set forth in Section 17 following.

(C) Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for these options are set forth in Section 17 following.

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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(C) Conditioning (Cont'd)

(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-TSY-000335.

(2) Improved Attenuation Distortion*

Improved Attenuation Distortion upgrades the frequency versus loss limits of the channel. The technical specifications for Improved Attenuation Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

(3) Improved Envelope Delay Distortion*

Improved Envelope Delay Distortion upgrades the frequency versus delay response limits of the channel. The technical specifications for Improved Envelope Delay Distortion are delineated in Technical Reference TR-TSY-000335. This option is available only when ordered in combination with C-Type Conditioning.

* Improved Attenuation Distortion and Improved Envelope Delay Distortion will continue to be provided to all customers who were provided with either or both of these optional features in conjunction with C-Type Conditioning prior to May 4, 1988.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(C) Conditioning (Cont'd)

(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-TSY-000335. The rate for this option is set forth in Section 17 following.

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

(5) Telephoto Capability

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-TSY-000335. The rate for this option is set forth in Section 17 following.

(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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(D) Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range on effective four-wire transmission. The ranges are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

(E) Improved Return Loss

(1) On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following

(2) On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in Section 17 following.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(F) Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service. The rate for this option is set forth in Section 17 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) Selective Signaling Arrangement

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 following.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(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 following.

(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.

(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 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.6 Voice Grade Service (Cont'd)

7.6.3 Optional Features and Functions (Cont'd)

(K) Improved Two-Wire Voice Transmission

(1) Loss Deviation

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

(2) Attenuation Distortion

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

(3) C-Message Noise

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

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	35 dBrnc
51 to 100	37 dBrnc
101 to 200	40 dBrnc
201 to 400	43 dBrnc
401 to 1000	45 dBrnc

(4) Return Loss

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

ERL	13.0 dB
SRL	6.0 dB

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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.7 Program Audio Service

7.7.1 Basic Channel Description

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 part-time 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 following.

7.7.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(D) following. Compatible network channel interfaces are set forth in 15.2.2(C)(4) following.

7.7.3 Optional Features and Functions

(A) Central Office Bridging Capability

Distribution Amplifier

(B) Gain Conditioning

Control of 1004 Hz AML at initiation of service to $0 \text{ dB} \pm 0.5 \text{ dB}$.

(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 15.2.1(D) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.8 Digital Data Service

7.8.1 Basic Channel Description

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., WIRE CENTER INFORMATION, TARIFF F.C.C. NO. 4.

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.

Rates and charges for Special Access Digital Data Service are as set forth in Section 17 following.

7.8.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(F) following. Compatible channel interfaces are set forth in 15.2.2(C)(6) following.

* When 64.0 Kbps service is multiplexed on a DS1 High Capacity service, the DS1 must be equipped to provide Clear Channel Capability.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.8 Digital Data Service (Cont'd)

7.8.2 Technical Specifications Packages and Network Channel Interfaces (Cont'd)

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

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

7.8.3 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) Central Office Bridging Capability

Bridging is not available on a 64.0 Kbps channel.

(B) Transfer Arrangement

An arrangement that affords the customer an additional measure of protection and/or flexibility in the use of their access channel(s) on a 1xN basis. The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.8 Digital Data Service (Cont'd)

7.8.3 Optional Features and Functions (Cont'd)

(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.

The table set forth in 15.2.1(F) following shows the technical specifications packages with which the optional features and functions are available.

(D) Public Packet Data Service Interface Arrangement

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

The table set forth in 15.2.1(F) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service

7.9.1 Basic Channel Description

A High Capacity channel is a channel for the transmission of nominal 64.0 Kbps* or 1.544, or 44.736 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 ADSL Access Service Connection Point and/or between a customer designated premises and a wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service.

(C)
|
(C)

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 HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

Rates and charges for Special Access High Capacity Service are as set forth in Section 17 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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service (Cont'd)

7.9.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 15.2.1(G) following. Compatible channel interfaces are set forth in 15.2.2(C)(7) following.

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

<u>NCI</u>	<u>Bit Rate</u>
DS-15*	1.544 Mbps (DS1)
DS-44	44.736 Mbps (DS3)

* A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps channel to a Telephone Company hub.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service (Cont'd)

7.9.3 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 will be provided under tariff only if it existed in the Telephone Company inventory as of November 18, 1983.

(B) Transfer Arrangement

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.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service (Cont'd)

7.9.3 Optional Features and Functions (Cont'd)

(C) Central Office Multiplexing

(1) DS3 to DS1

An arrangement that converts a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

(2) DS1 to Voice

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

(3) DS1 to DS0

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

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service (Cont'd)

7.9.3 Optional Features and Functions (Cont'd)

(C) Central Office Multiplexing (Cont'd)

(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. The table set forth in 15.2.1(G) following shows the technical specifications packages with which the optional features and functions are available.

(D) Clear Channel Capability (CCC)

(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 TR-NPL-000054 and Technical Reference TR-INS-000342.

(2) 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., WIRE CENTER INFORMATION, 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 7.2.2(C)(3) preceding.

(E) ADSL Access Service Connection

(1) The ADSL Access Service Connection function provides for the interconnection of a 1.544 Mbps or 44.736 Mbps High Capacity Service as described in Section 8, following.

Rates and charges for the ADSL Access Service Connection function are as set forth in Section 17, following. This function applies to each 1.544 Mbps or 44.736 Mbps High Capacity Service terminated at an ADSL Access Service Connection Point.

(N)

(N)

*

Available only on a DS1-to-Digital multiplexed configuration.

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.9 High Capacity Service (Cont'd)

7.9.3 Optional Features and Functions (Cont'd)

(F) 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 SONET- based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around a 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., WIRE CENTER INFORMATION, TARIFF 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 set forth in 7.10.3 (D) following.

(N)

(N)

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ACCESS SERVICE

7. Special Access Service (Cont'd)
7.10 Synchronous Optical Channel Service
7.10.1 Basic Channel Description

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), 622.08 Mbps (OC12), and 2.4 Gbps (OC48). Synchronous Optical Channel Service is provided between two customer designated premises (CDP) through one or more Telephone Company wire centers, or between a CPD and a wire center equipped with Asynchronous Transfer Mode Cell Relay Access Service, or between a CDP and a wire center equipped with 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.

(C)
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(C)

Synchronous Optical Channel Service may also be provided between a customer designated premises and a Telephone Company designated DSL Access Service Connection Point.

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 customers service. Should a failure occur, the SONET technology will automatically switch the customer's transmission to the dedicated 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 Synchronous Optical Channel is available in a non-concatenated format which provides three individual signals. The Synchronous Optical Channel is also available in a concatenated format which provides a single signal appropriate for data transmissions.

ACCESS SERVICE

7. Special Access (Cont'd)

7.10 Synchronous Optical Channel Service (Cont'd)

7.10.1 Basic Channel Description (Cont'd)

A term discount is available for Synchronous Optical Channel Service rate elements and optional features and functions.

Synchronous Optical Channel Service is available at the wire centers as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4.

Rates and charges for Synchronous Optical Channel Service are set forth in 17.6.9 following.

(N)

(N)

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ACCESS SERVICE

7. Special Access Service (Cont'd)

7.10 Synchronous Optical Channel Service (Cont'd)

7.10.2 Network Channel Interfaces

Compatible channel interfaces for Synchronous Optical Channel Service are set forth in 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>	<u>Bit Rate</u>
FCF-B	155.52 Mbps (OC3, OC3c)
FCF-D	622.08 Mbps (OC12)
	2.4 Gbts (OC 48)

7.10.3 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 signal (i.e., OC3, OC3c, OC12 or OC48) 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 17.6.9 (D) (1) following.

(N)

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)

7.10 Synchronous Optical Channel Service (Cont'd)

7.10.3 Optional Features and Functions (Cont'd)

(N)

(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 etc. channels ordered. Customer Premises Ports are available at the following speeds:

<u>Customer Premises Ports</u>	<u>Speed</u>
OC12	622.08 Mbps
OC3, OC3c	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

Rate and charges for the Customer Premises Port are set forth in 17.6.9 (D) (1) following.

(C) Add/Drop Multiplexing

An Add/Drop Multiplexing Central Office Port charge applies to the interface provided at the 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:

<u>Central Office Port</u>	<u>Speed</u>
OC12	622.08 Mbps
OC3, OC3c	155.52 Mbps
STS-1	51.84 Mbps
DS3	44.736 Mbps
DS1	1.544 Mbps

OC48 service may only be multiplexed to OC12. OC12 service may only be multiplexed to OC3/OC3c channels.

(N)

ACCESS SERVICE

7. Special Access Service (Cont'd)
7.10 Synchronous Optical Channel Service (Cont'd)
7.10.3 Optional Features and Functions (Cont'd)

(C) Add/Drop Multiplexing (Cont'd)

When an OC12/OC3 channel is derived from an OC48/OC12 service and is further multiplexed to obtain DS3 service, a DS3 port charge will apply in addition to the OC12/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 as set forth in 17.6.9 (D) (3) 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 17.5.8 (C) (1) will also apply. (C)

Rates and charges for the Central Office Port are set forth in 17.5.8 (C) (1) following. (C)

7. Special Access Service (Cont'd)

7.10 Synchronous Optical Channel Service (Cont'd)

7.10.3 Optional Features and Functions (Cont'd)

(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 SONET- based facility deployed in a ring configuration. Shared SONET Ring Interoffice Transport provides increased reliability and functionality using self-healing ring topology designed to continually monitor service quality, detect any failure within the system, and automatically self-heal within 50 milliseconds around a 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., WIRE CENTER INFORMATION, TARIFF F.C.C. NO. 4.
- (3) The Share 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 set forth in 7.10.3 (D) (1) preceding.

(N)

(N)

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ACCESS SERVICE

7. Special Access Service (Cont'd)

7.10 Synchronous Optical Channel Service (Cont'd)

7.10.3 Optional Features and Functions (Cont'd)

(E) DSL Access Service Connection

The DSL Access Service Connection function provides for the interconnection of an OC3/ OC3c Synchronous Optical Channel Service with ADSL Access Service as described in 8.1, following and Technical Reference ANSI T1.413-1998.

Rates and charges for the DSL Access Service Connection function are set forth in 17.6.9 (D) (5), following. This function applies to each OC3/ OC3c Synchronous Optical Channel terminated at an DSL Access Service Connection Point.

(N)

(N)

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ACCESS SERVICE

8. Digital Subscriber Line Access Services

Digital Subscriber Line Access Services 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. (C)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL)

8.1.1 General

Asymmetric 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 that aggregates data traffic from and to Telephone Company ADSL-equipped 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 Services, Frame Relay Access Service or Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) or, in the operating territory of another telephone company for connections to special access or frame relay access services, provided both telephone companies agree to such an arrangement. (C)

When 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 a single telecommunications service provider's (TSP's) customer designated premises using either the Telephone Company's Special Access Services, Frame Relay Access Service or ATM-CRS. (C)

When the 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 a single TSP's customer designated premises using equivalent frame relay access service provided by the distant telephone company, or special access service provided by the distant telephone company. (C)

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.1 General (Cont'd)

ADSL Access Service is available as two service options, i.e., ADSL Voice-Data and ADSL Data-Only. (C)

(A) The ADSL Voice-Data option provides transmission of data signals at a peak data transmission speeds of 512 kbps upstream and 1.544 Mbps downstream using the Telephone Company's existing local exchange service line. This option may be used for simultaneous voice and data communications.

(B) The ADSL Data-Only option provides transmission of data signals at peak transmission speeds of 512 kbps upstream and 1.544 Mbps downstream using the Telephone Company's existing local exchange facilities. This option does not provide the ability to transmit voice communications. (C)

ACCESS SERVICE

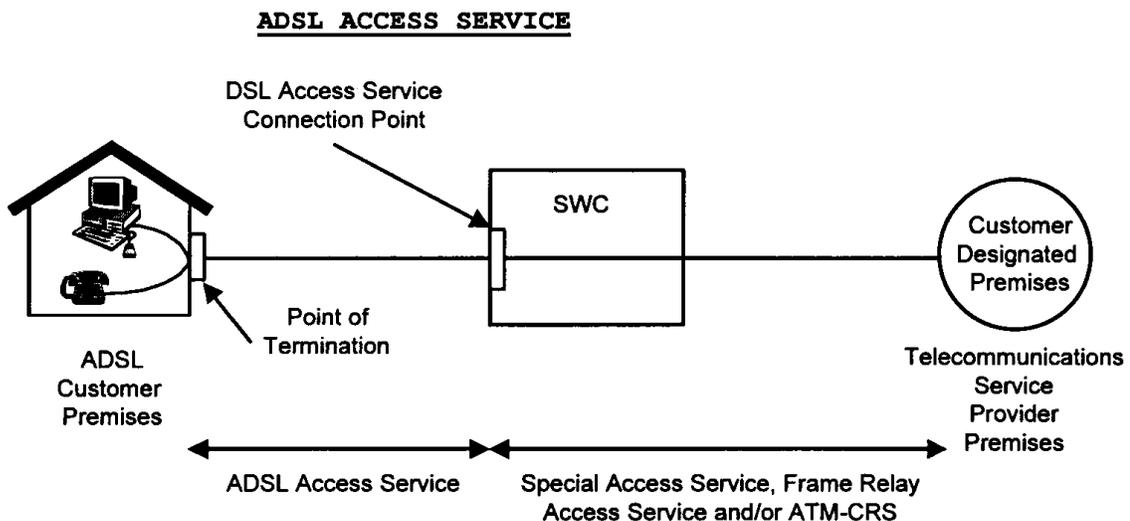
8. Digital Subscriber Line Access Services (Cont'd)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.1 General (Cont'd)

A generic view of how ADSL Access Service could be interconnected with a TSP's network is depicted in the figures following. In the following 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 Services, Frame Relay Access Service and/or Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) pursuant to the provisions specified in Section 7, preceding to connect its customer designated premises to the DSL Access Service Connection Point.

(C)



(C)

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ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.2 Limitations

ADSL Access Service is available as two service options as previously described. ADSL Access Service is at a maximum upstream speed of 512 kbps(i.e., from the customer's equipment up to the DSL Access Service Connection Point) and a maximum downstream speed of 1.544 mbps (from the DSL Access Service Connection Point down to the customer's equipment). 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 local exchange service facilities, and any capacity limitations in the telecommunications service provider's network design.

(C)
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(C)

The Telephone Company does not provide customer premises equipment (CPE) in conjunction with the ADSL Access Service offering.

ADSL Access Service may not be used in conjunction with multi-point Special Access Service configurations as described in 7.1.3, preceding.

ADSL Access Service will be furnished where suitable facilities exist as determined by the Telephone Company. ADSL Access Service will be provided over existing Telephone Company local exchange service lines. ADSL Serving Wire Centers and DSL Access Service Connection Points will be identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. Tariff F.C.C. No. 4.

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.

(C)
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(C)

Rates and regulations for Special Access Services, Frame Relay Access Service and Asynochorous Transfer Mode Cell Relay Access Service provided under this tariff will apply for the access service(s) provided between the telecommunications service provider's customer designated premises and the DSL Access Service Connection Point, as described in Section 7, preceding.

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ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.2 Undertaking of the Telephone Company

The Telephone Company will provide ADSL Access Service at rates and charges as set forth in Section 17 as follows:

- (A) The Telephone Company will determine if the associated local exchange service line or facilities are suitable for use with ADSL Access Service. 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. (C)
- (B) The Telephone Company, after determining if the local exchange service line is 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 Connection Point to the Point of Termination at the customer's premises.

8.1.3 Reserved for Future Use

These revisions filed under Transmittal No. 181

Supervisor, Tariffs
805 Broadway, Vancouver, WA 98668

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

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 premises address; its Internet Protocol (IP) address; and the contact name and telephone number of the telecommunications service provider with which the customer's ADSL Access Service will interconnect). (D)
(D)
(M)
(M)
(T) (C)
- (B) The customer is responsible for providing and maintaining all required customer provided equipment (CPE), which is compatible with ADSL Access Service and complies with the standards specified in Technical Reference ANSI T1.413-1998. (T)

(M) Material formerly appearing on this page now appears on Page 8-2.

These revisions filed under Transmittal No. 163

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.5 Rate Regulations

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 Services, Frame Relay Access Service and Asynchronous Transfer Mode Cell Relay Access Service provided under this tariff used in conjunction with ADSL Access Service are as specified in Section 7, preceding and Sections 16.1 and 16.2, 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)

(C) Temporary Suspension of Service

When the associated local exchange service over which ADSL Voice-Data option is provided is temporarily suspended, the ADSL Access Service and one-half of the ADSL Line Charge monthly rate will be temporarily suspended for the time period that the associated local exchange service is suspended. (C)

These revisions filed under Transmittal No. 181

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.5 Rate Regulations (Cont'd)

(D) Rate Categories

There are three types of rates and charges applicable to ADSL Access Service. These are a monthly rate, a nonrecurring charge and a network reconfiguration charge.

The monthly rate applies each month or fraction thereof for each local exchange service line equipped with ADSL Access Service.

A nonrecurring charge applies per local exchange service line for the installation of ADSL Access Service. The nonrecurring charge will be waived for each new ADSL Access Line ordered when the customer commits to retain the ADSL Access Line for a minimum period of 12 months following installation of service. If the ADSL Access Line is disconnected for any reason prior to the end of the 12-month minimum commitment period, the Telephone Company will bill the customer an amount equal to the waived nonrecurring charge.

All changes to existing ADSL Access Service (e.g., a change of telecommunications service provider and restoral of the ADSL Access Service following a disconnect for non-payment of charges and/or a disconnect of the associated local exchange service line for any reason), other than changes involving DSL network reconfigurations and administrative activities, will be treated as a discontinuance of the existing service and an installation of a new service. A nonrecurring installation charge will apply per ADSL Access Service line for this work activity.

The Telephone Company will not bill the waived nonrecurring charge on an ADSL option conversion (i.e., replacing ADSL Voice-Data with ADSL Data-Only, or vice versa) when the customer provides the Telephone Company with 30 days notice of its intent to convert and commits to retain the new ADSL Access Service option for a new minimum 12-month period.

(N)
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(N)

A DSL Network Reconfiguration Charge applies when the ADSL Access Service customer's telecommunications service provider requests the telephone company to modify the Telephone Company's network to: 1) accommodate a change in the ADSL Access Service customer's existing IP address, or 2) limit the data speed delivered over the customer's existing ADSL Access Service line. A nonrecurring charge applies for each request per ADSL Access Service line. The Telephone Company will bill the DSL Network Reconfiguration charge to the ADSL Access Service customer's telecommunications service provider.

(D)

These revisions filed under Transmittal No. 181

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.1 Asymmetric Digital Subscriber Line Access Service (ADSL) (Cont'd)

8.1.5 Rate Regulations (Cont'd)

(D) Rate Categories (Cont'd)

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 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 of customer contact name or telephone number, and
- Change of jurisdiction.

Rates and charges for ADSL Access Service are as set forth in Section 17.6.8(A), following, or in 17.6.8(B) following, when the customer purchases ADSL Access Service under the DSL Access Services Discount Pricing Arrangement described in 8.3, following. The DSL Network Reconfiguration Charge is as set forth in 17.6.8(C), following.

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.2 Reserved for Future Use

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Supervisor, Tariffs
805 Broadway, Vancouver, WA 98668

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.3 DSL Access Services Discount Pricing Arrangement

8.3.1 General

The telecommunications services offered under the DSL Access Services Discount Pricing Arrangement (DPA) are provided at wholesale rates to the customer under the conditions listed below.

- (A) The customer purchases ADSL Access Service as described in 8.1, 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 8.1.4, 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 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 Access Service over the customer's end user's existing telephone exchange service line.

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.2 DSL Access Services Discount Pricing Arrangement (Cont'd)
8.2.1 General (Cont'd)

When the customer purchases ADSL Access Service under the DSL Access Services DPA, the rates and charges in 17.6.8(B), following, will apply in lieu of the rates and charges specified in 17.6.8(A), following, for ADSL Access Service

Services provided under the DSL Access Services DPA are available under a Monthly Plan at the rates and charges specified in 17.6.8(B)(1), following, or under a Term Plan described in 8.3.2, following, at the rates and charges specified in 17.6.8(B)(2), following.

A monthly charge applies for each ADSL Access Service line covered under the DPA. A nonrecurring charge applies for the installation of each ADSL Access Service line under the DPA. A DSL Network Reconfiguration Charge would apply for each requested reconfiguration for each ADSL Access Service line covered under the DPA.

The Telephone Company will bill the customer an Access Order Charge, per order, to convert in-service ADSL Access Service lines originally purchased under the provisions specified in 8.1, preceding, to the DSL Access Services DPA, provided the customer obtains written authorization from its end users authorizing such conversions, where necessary. Per line nonrecurring charges specified in 17.6.8(B), following, do not apply to conversion of in-service ADSL Access Lines to a DPA.

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.3 DSL Access Services Discount Pricing Arrangement (Cont'd)
8.3.2 Term Plan

(A) Description

The Term Plan provides the customer with reduced rates based on the length of the customer's term commitment and its selected pricing option. The Term Plan is available for terms of one or three years with a choice of three pricing options. The Telephone Company will establish a Term Plan for each Serving Wire Center (SWC) based on the customer's order notifying the Telephone Company which ADSL-equipped SWC(s) the customer wants included in the plan(s) and the selected term commitment and pricing option for each SWC. An Access Order Charge applies for each order to establish the initial Term Plan(s).

(C)

When the customer subscribes to a Term Plan, all in-service ADSL Access Service lines provided out of and subsequently installed at the included SWC will be billed the rates and charges specified in 17.6.8(B)(2), following, for the length of the term commitment. In addition to the applicable ADSL Line Charges, the customer will be billed a recurring monthly Term Plan Charge for each SWC included in a Term Plan, as specified in 17.6.8(B)(2)(a), following based on its selected pricing option.

If the Telephone Company decreases the rates specified in 17.6.8(B)(2), following, during the term of a commitment period, the decreased rates will automatically be applied for the remainder of the current commitment period.

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ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)
8.2 DSL Access Services Discount Pricing Arrangement (Cont'd)

8.2.2 Term Plan
(A) Description (Cont'd)

At the end of the Term Plan, the customer may elect to establish a new Term Plan commitment, convert to the rates available under the Monthly Plan, or discontinue service. If the customer does not make an election by the end of the Term Plan, the rates for all ADSL Access Service lines will automatically be converted to the rates available under the Monthly Plan specified in 17.6.8(B)(1), following. An Access Order Charge will not apply to any election made by the customer at the end of the Term Plan.

A Term Plan is subject to payment for early termination as described in (D), following.

(B) Upgrades in Term Plan

A customer may terminate a Term Plan without the application of a termination liability charge when the customer replaces its original Term Plan commitment with a new Term Plan commitment provided the length and pricing option of the new Term Plan commitment is of equal or greater length than the length of the original Term Plan commitment. An Access Order Charge will not apply when the customer replaces an existing Term Plan with a new Term Plan commitment under this provision.

(C)
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(C)

(C) Termination without Liability

A customer may terminate a Term Plan without the application of a termination liability charge if the Telephone Company increases the Term Plan monthly rates described in 17.6.8(B)(2), 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 Term Plan under this section; otherwise, the increased rates will apply for the remainder of the commitment period.

ACCESS SERVICE

8. Digital Subscriber Line Access Services (Cont'd)

8.2 DSL Access Services Discount Pricing Arrangement (Cont'd)

8.2.2 Term Plan (Cont'd)

(D) Termination with Liability

If the customer elects to terminate its Term Plan(s) prior to the end of the commitment period for any reason other than specified in (B) or (C), preceding, a termination liability charge will apply. For each Term Plan terminated prior to the end of the commitment period, the Telephone Company will bill the customer a charge equal to the monthly Term Plan Charge for its selected pricing option as specified in 17.6.8(B)(2)(a), following, multiplied by the number of months remaining in the commitment period.

(C)
(C)

Monthly Plan rates as described in 17.6.8(B)(1), following, will apply to all in-service ADSL Access Lines following the early termination of a Term Plan.

(T)

ACCESS SERVICE

9. THIS SECTION RESERVED FOR FUTURE USE.

ACCESS SERVICE

10. Special Federal Government Access Services

10.1 General

This section covers Special Access Services that are provided to a customer for use only by agencies or branches of the Federal Government and other users authorized by the Federal Government. Services provided to state emergency operations centers are included. These services provide for command and control communications, including communications for national security, emergency preparedness and presidential requirements. They are required to assure continuity of Government in emergency and crisis situations and to provide for national security.

Services for command and control communications and for national security and emergency preparedness sometimes require short notice and short duration service provisions. These provisions are especially needed to meet presidential requirements or in response to natural, man-made, or declared emergencies. Requirements of this type cannot be forecasted and are usually needed for a relatively short period. The provision of service under these conditions may require the availability of facilities, such as portable microwave equipment, which are provided on a temporary basis by the Telephone Company or customer.

10.2 Emergency Conditions

These services will be provided on the date requested or as soon as possible thereafter when the emergency falls into one of the following categories:

- State of crisis declared by the National Command Authorities (includes commitments made to the National Communications System in the "National Plan for Emergencies and Major Disasters").
- Efforts to protect endangered U.S. personnel or property both in the U.S. and abroad. (Includes space vehicle recovery and protection efforts.)
- Communications requirements resulting from hostile action, a major disaster or a major civil disturbance.
- The Director (Cabinet level) of a Federal department,
- Commander of a Unified/Specified Command, or head of a military department has certified that a communications requirement is so critical to the protection of life and property or to the National Defense that it must be processed immediately.
- Political unrest in foreign countries which affect the national interest.
- Presidential service.

ACCESS SERVICE

10. Special Federal Government Access Services (Cont'd)

10.3 Facility Availability

In order to insure communications during periods of emergency, the Telephone Company will, within the limits of good management, make available the necessary facilities to restore service in the event of damage or to provide temporary emergency service.

In order to meet the requirements of agencies or branches of the Federal Government, the Telephone Company may utilize government-owned facilities, when necessary to provide service.

10.4 Federal Government Regulations

In accordance with Federal Government Regulations, all service provided to the Federal Government will be billed in arrears. However, this provision does not apply to other customers that obtain services under the provisions of this tariff to provide their services to the Federal Government.

10.5 Service Offerings to the Federal Government

The following unique services are provided to a customer for use only by agencies or branches of the Federal Government, other authorized users and state emergency operations centers. The rates and charges for these services shall be developed on an individual case basis and shall be consistent with the rates and charges for services offered in other sections of this tariff.

10.5.1 Type and Description

(A) Voice Grade Special Access Services

(1) Voice Grade Secure Communications Type I

Approximate bandwidth of 10-50,000 Hz. Furnished for two-point secure communications on two-wire or four-wire metallic facilities between a customer designated premises and an end user's premises. Services are conditioned as follows:

T-3 Conditioning - The absolute loss (referenced to 1 milliwatt) with respect to frequency shall not exceed:

15 dB at 10 Hz
13 dB at 100 Hz
9 dB at 1,000 Hz
20 dB at 10,000 Hz
30 dB at 50,000 Hz

ACCESS SERVICE

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) Voice Grade Secure Communications Type I 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) Voice Grade Secure Communications Type II

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.

ACCESS SERVICE

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)

(3) Voice Grade Secure Communications Type III

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communications between a customer designated premises and an end user's premises. Services are conditioned as follows:

G-2 Conditioning - The absolute loss with respect to frequency and the net loss variation from the customer designated premises to the end user's premises shall be the same as Voice Grade Secure Communications Type I services without additional conditioning; from the end user's premises to the customer designated premises shall be the same as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

(4) Voice Grade Secure Communications Type IV

Approximate bandwidth 10-50,000 Hz. Furnished on four-wire metallic facilities for duplex operation for two-point secure communication between two customer designated premises. Services are conditioned as follows:

G-3 Conditioning - The absolute loss with respect to frequency and the net loss variation shall be the same in both directions of transmission as Voice Grade Secure Communications Type I services with additional conditioning. Voice frequency signaling or supervisory tones can be transmitted.

ACCESS SERVICE

10. Special Federal Government Access Services (Cont'd)
10.5 Service Offerings to the Federal Government (Cont'd)
10.5.1 Type and Description (Cont'd)

- (B) Wideband Digital Special Access Service
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) Wideband Secure Communications Type II
For transmission at the rate of 50,000 bits per second.
- (3) Wideband Secure Communications Type III
To accommodate the transmission of restored polar two-level facsimile signals with a minimum signal element width of twenty micro-seconds at a rate of 50,000 bits per second.
- To accommodate the transmission of binary digital baseband signals in a random polar format at the rate of 50,000 bits per second.

10.5.2 Mileage Application

Mileage, when used for rate application between the serving wire centers of two customer designated premises, shall be determined by the V and H Coordinates Method as set forth in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF F.C.C. NO. 4 and administered as set forth in 7.2.5 preceding.

ACCESS SERVICE

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 10.5 preceding, are developed on an individual case basis and are set forth in Section 17 following.

10.6.2 Voice Grade Special Access

The provision of T-3 and G conditioned services contemplates station and tandem switching operations, using customer provided equipment, as well as Special Access Service. Separate narrow band 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 that service, as set forth in Section 17 following, is moved to a different building, the nonrecurring charge applies; when moved to a new location in the same building, a charge of one-half of the nonrecurring charge applies.

(B) When service with a termination charge associated with that service, as set forth in Section 17 following, is moved and reinstalled at a new location, the customer may elect:

- to pay the unexpired portion of the termination charge for the service, if any, with the application of a nonrecurring charge and the establishment of a new termination charge for such service at the new location, or
- to continue service subject to the unexpired portion of the termination charge, if any, and pay the estimated costs of moving such service, provided that the customer requests these charges be quoted prior to ordering the service move. Charges for moving such service will be based on estimated costs attributable to the move.

Move charges include the estimated costs of removal, restoration of services or facilities necessitated by the move, transportation, storage, reinstallation, engineering, labor, supervision, materials, administration, and any other specific items of cost directly attributable to the move.

ACCESS SERVICE

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 Diversity

Two or more circuits must be provided over not more than two different physical routes.

11.1.2 Avoidance

A circuit(s) must be provided on a route which avoids specified geographical locations.

11.1.3 Diversity and Avoidance Combined

11.1.4 Cable-Only Facilities

Certain Voice Grade services are provided on Cable-Only Facilities to meet the particular needs of a customer. Service is provided subject to the availability of Cable- Only facilities. In the event of service failure, restoration will be made through the use of any available facilities as selected by the Telephone Company.

Avoidance and Diversity are available on Switched Access Service as set forth in Section 6. preceding; Metallic, Telegraph Grade and Voice Grade Special Access Services as set forth respectively in 7.4, 7.5 and 7.6 preceding and Special Federal Government Access Services as set forth in 10.5 preceding. Cable-Only Facilities are available for Switched Access Service as set forth in Section 6. preceding; Voice Grade Special Access Services as set forth in 7.6 preceding and Special Federal Government Access Services as set forth in 10.5 preceding.

ACCESS SERVICE

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. Such rates and charges for Special Facilities Routing of Access Services are as set forth in Section 17 following and are in addition to all other rates and charges that may be applicable for services provided under other sections of this tariff.

ACCESS SERVICE

12. Specialized Service or Arrangements

12.1 General

Specialized Service or Arrangements may be provided by the Telephone Company, at the request of a customer, 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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services

13.1 addresses Additional Engineering. 13.2 addresses Additional Labor (which is comprised of Overtime Installation, Overtime Repair, Standby, Testing and Maintenance with Other Telephone Companies, and Other Labor). 13.3 addresses Miscellaneous Services (which are comprised of Testing Services, Maintenance of Service and Telecommunications Service Restoration Priority). 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 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 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 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 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 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 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 following, does not apply unless the customer authorizes the Telephone Company to proceed with the Design Change.

ACCESS SERVICE

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 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 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 effort performed outside of normally scheduled working hours.

13.2.3 Standby

Standby includes all time in excess of one-half (½) 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 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.

ACCESS SERVICE

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 following. A call-out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours. Other testing services, as described in 6.2.4 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 the installation of a Switched Access Service, (i.e., Acceptance Tests), (b) tests which are performed after customer acceptance of such access services and which are without charge (i.e., routine testing) and (c) additional tests which are performed during or after customer acceptance of such access services and for which additional charges apply, (i.e., Additional Cooperative Acceptance Tests and in-service tests).

Routine tests are those tests performed by the Telephone Company on a regular basis, as set forth in 6.2.4 preceding which are required to maintain Switched Access Service. Additional in-service tests may be done on an automatic basis (no Telephone Company or customer technicians involved), on a manual basis (Telephone Company 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 Feature Groups C and D. Testing Services for Directory Assistance Service not routed through an access tandem is ordered to a Directory Assistance Location for each NPA.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.1 Testing Services (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

(2) Additional Automatic Testing

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

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

The Additional Tests, (i.e., gain slope, C- notched noise, 1004 Hz loss, C-message noise and balance) may be ordered by the customer at additional charges, 60 days prior to the start of the customer prescribed schedule. The rates for Additional Automatic Tests are as set forth in Section 17 following.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.1 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(3) Additional Manual Testing

Additional Manual Testing (AMT) of Switched Access Services (Feature Groups A, B, C, and D 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 IC may request.

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

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

The rates for Additional Manual Testing are as set forth in Section 17 following.

(4) Obligations of the Customer

(A) The customer shall provide the Remote Office Test Line priming data to the Telephone Company, as appropriate, to support routine testing as set forth in 6.2.4(B) preceding or AAT as set forth in 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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.1 Testing Services (Cont'd)

(B) Special Access Service

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

(1) Additional Cooperative Acceptance Testing

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

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

(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.

(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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

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 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.

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 (FCC's) Rules and Regulations.

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

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

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

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.3 Telecommunications Service Priority - TSP (Cont'd)

- (B) A Telecommunications Service Priority charge applies as set forth in Section 17 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 will apply to Telecommunications Service Priority requests that are ordered subsequent to the initial installation of the associated access service.

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

In addition, Additional Labor rates as set forth in Section 17 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 and Additional Labor rates as set forth in Section 17 are applicable.

13.3.4 Miscellaneous Equipment

(A) Controller Arrangement

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

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

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.4 Presubscription

Pursuant to the Federal Communications Commission's Memorandum Opinion and Order, CC Docket No. 83-1145, Phase I, adopted May 31, 1985, and released June 12, 1985, the Allocation Plan, outlined in the Appendix B of this Order, will be available for inspection in the Public Reference Room of the Tariff Division at the Federal Communications Commission's Washington, D.C., location or may be obtained from the Commission's commercial contractor.

- (A) Presubscription is the process by which end user customers may select and designate to the Telephone Company an IC to access, without an access code, for interLATA, interstate calls. This IC is referred to as the end user's predesignated IC.
- (B) On the effective date of this tariff, all existing end users have access to interstate MTS/WATS. No later than 85 days prior to conversion to Feature Group D in a serving end office, the Telephone Company will notify end users of the availability of equal access in their particular area. The notification will include the names of all ICs wishing to participate in the presubscription process. This notification will be sent via U.S. Mail to each end user of record served by the end office to be converted.
- (C) End users may select one of the following options at no charge:
 - indicate a primary IC for all of its lines,
 - indicate a different IC for each of its lines.

Only one IC may be selected for each line or lines terminating in the same hunt group.

End users may designate that they do not want to presubscribe to any IC. The end user 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 (10XXX or 101XXXX) for all interstate calls.

After the end user's initial selection of a predesignated IC or the designation that they do not want to presubscribe to any IC, for any change in selection after conversion to Equal Access in the serving end office, a nonrecurring charge, as set forth in Section 17 following applies.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.4 Presubscription (Cont'd)

- (D) End users not responding to the initial notification will be sent a second notification for the selection of a predesignated IC no earlier than 40 days prior to or no later than 90 days after the conversion to Equal Access in a serving end office. This second notification will indicate the primary IC that has been assigned to them if they fail to respond to the second notification.

After the allocation process has been completed, end users assigned to an IC via the allocation process may change their IC one time within six months after conversion to Equal Access in the serving end office at no charge.

Following the six month period after conversion to Equal Access for any change in selection, a nonrecurring charge as set forth in Section 17 following, applies.

- (E) When an end user indicates more than one IC selection on the return notification or returns an illegible return notification, the Telephone Company will contact the end user for clarification. If the end user indicates an IC selection on the return notification that does not match with information provided by an IC and both notifications indicate the same authorization date, the end user's notification takes precedence and the Telephone Company will process the end user's selection. In the event that two or more ICs provide to the Telephone Company notifications with the same authorization date and neither notification has been processed, the Telephone Company will contact the end user for clarification. A list of these end users in conflict must be sent to the affected IC by the Telephone Company.

In the event that two or more ICs have provided to the Telephone Company notifications with the same authorization date(s), and one IC notification has already been processed by the Telephone Company, those IC notifications not yet processed would be returned to the ICs.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.4 Presubscription (Cont'd)

(F) New end users who are served by end offices equipped with Feature Group D will be asked to presubscribe to an IC at the time they place an order with the Telephone Company for Telephone Exchange Service. They may select either of the following options. There will be no charge for this initial selection.

- designate a primary IC for all of its lines,
- designate a different IC for each of its lines.

Only one IC may be selected for each individual line, or lines terminating in the same hunt group. Subsequent to the installation of Telephone Exchange Service and after the end user's initial selection of a predesignated IC, for any change in selection, a nonrecurring charge, as set forth in Section 17 following, applies.

(G) If the new end user fails to designate an IC as its predesignated IC prior to the date of installation of Telephone Exchange Service, the Telephone Company will (1) allocate the end user to an IC based upon current IC presubscription ratios, (2) require the end user to dial an access code (10XXX or 101XXXX) for all interstate calls, or (3) block the end user from interstate calling. The end user will be notified which option will be applied if they fail to presubscribe to an IC. An allocated or blocked end user may designate another, or initial, IC as its predesignated IC one time at no charge, if it is requested within six months after the installation of Telephone Exchange Service.

For any change in selection after 6 months from the installation of Telephone Exchange Service, a nonrecurring charge, as set forth in Section 17 following, applies.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)
13.4 Presubscription (Cont'd)

- (H) If an IC elects to discontinue its Feature Group D service offering prior to or within 2 years of the conversion, 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 they should contact the Telephone Company to select a new primary IC. The IC will also inform the end user that it will pay the presubscription change charge. The canceling IC will then be billed by the Telephone Company the appropriate charge for each end user for a period of two years from the discontinuance of Feature Group D 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 predesignated carrier code of each end user identified by the IC to the new CIC and bill the IC the nonrecurring charge set forth in Section 17 following for each end user line or trunk that is changed.

13.5

(S)(X)

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(S)(X)

(X) Material originally filed under Transmittal 168 and became effective on January 1, 2002

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

(S)(X)

(S)(X)

(X) Material originally filed under Transmittal 168 and became effective on January 1, 2002

Transmittal 171

Supervisor, Tariffs
805 Broadway, Vancouver, WA 98668

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

(S)(X)

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(S)(X)

(X) Material originally filed under Transmittal 168 and became effective on January 1, 2002
Transmittal 171

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.6 Unauthorized Primary Interexchange Carrier (PIC) Change

(S)(X)

- 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 services 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.

(S)(X)

13.7 Blocking Service

13.7.1 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 Feature Group A 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.

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 10XXX-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 following is applicable for each new or existing exchange line or trunk or Feature Group A 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 Feature Group A Switched Access line at the same time that it is disconnected.

(X) Material originally filed under Transmittal 168 and became effective on January 1, 2002

Transmittal 171

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.7 Blocking Service (Cont'd)

13.7.1 International Blocking Service (Cont'd)

A Miscellaneous Service Order Charge as set forth in Section 17 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 Feature Group A Switched Access line(s). This charge does not apply when blocking is removed from an exchange line or trunk or Feature Group A Switched Access line at the same time that it is disconnected.

13.7.2 900 Blocking Service

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 Feature Group A 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.

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.

A Blocking Service charge as set forth in Section 17 following is applicable when ordered by the end user customer with the following exception:

- Blocking access to 900 Service is offered to all 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 Feature Group A 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 Feature Group A Switched Access line at the same time that it is disconnected.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.8 Billing Name and Address Service

13.8.1 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 calls 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 (1) the subscriber to a nonpublished or unlisted telephone number has affirmatively that requested its BNA not be disclosed, or (2) in the case of Puerto Rico Telephone Company's subscribers to nonpublished or unlisted numbers, BNA will be provided only if affirmative authorization has been obtained from such subscribers.

13.8.2 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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.8 Billing Name and Address Service (Cont'd)

13.8.2 Undertaking of the Telephone Company (Cont'd)

- (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 13.8.1(A) preceding. BNA disclosure is limited to those purposes as defined in 13.8.1(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 13.8.1(B) preceding. The Telephone Company will not process the order until such time as the interstate service provider supplies the requested data.

13.8.3 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 13.8.1(B) preceding.
- (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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.8 Billing Name and Address Service (Cont'd)

13.8.4 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 following.
- (B) Where available, the customer may order the response formatted on Magnetic Tape. The Optional Magnetic Tape Charge is specified in Section 17 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 following and is in addition to the BNA Order Charge and the BNA Record Charge.

13.9 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 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.

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. 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 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.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.9 Originating Line Screening (OLS) Service (Cont'd)

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.

13.10 Nonchargeable Confirmation Services

13.10.1 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.

13.10.2 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.

13.11 Coin Supervision Additive Service

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.

Coin Supervision Additive Service provides the capability of central office line equipment to pass signals and/or tones from an 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 exchange service line upon completion of the call.

A Coin Supervision Additive Service charge as set forth in Section 17 following is assessed monthly to the PSP for each exchange service line for which Coin Supervision Additive Service is provided.

ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.12 Payphone-Specific Coding Digits Service

The Telephone Company will equip local exchange pay telephone lines ordered by Payphone Service Providers (PSPs) from the Telephone Company's local exchange tariff with the capability to transmit payphone-specific coding digits (i.e., 27 for pay telephones requiring central office coin supervision, 29 for prison/inmate pay telephones, and 70 for pay telephones not requiring central office coin supervision) to the Interexchange Carrier. These digits will be transmitted via Flexible Automatic Number Identification (Flex ANI) to the Interexchange Carriers who have trunks equipped with the Flex ANI optional feature as described in Section 6 preceding. The Interexchange Carriers will use this information to compensate the PSP's for subscriber 800 series calls and dial-around access code call (e.g., 101XXXX) placed from pay telephones.

The Telephone Company will apply a monthly Payphone-Specific Coding Digits Service charge, as set forth in Section 17 following, to each pay telephone service line that is assigned a payphone-specific coding digit. This charge recovers the initial costs of deploying the Flex ANI capability and will be in effect for the period of September 12, 1998 to September 11, 2001.

13.13 Unattended Group Teleconference Service

Unattended Group Teleconference Service allows a customer to subscribe to Telephone Company conferencing ports for use in teleconferencing services. The customer sells the teleconferencing services to participants who dial a predetermined telephone number and are automatically joined in a "meet me" group teleconference call with other participants dialing the same telephone number. This service does not require a pass-code or intervention by an Operator. The maximum number of ports is determined by the number of ports subscribed to by the customer, on a one for one basis.

The Telephone Company will provide a Central Office telephone number assignment and a specified number of "meet me" group conference ports to the customer. Unattended Group Teleconference Service is only offered in DMS 100 equipped exchanges and where facilities and conditions permit. The capacity of the Telephone Company's teleconference facilities is limited and the demand for use of such facilities may from time to time exceed the quantity available for use.

Rates and charges for Unattended Group Teleconference Service are as set forth in Section 17, following. The Miscellaneous Service Order Charge as set forth in Section 17, following will apply for the initial service order and for each subsequent change to the customer's initial service request.

(N)

(N)

ACCESS SERVICE

14. Special Construction

14.1 Application of Tariff

This tariff contains regulations, rates, charges, and liabilities applicable for the special construction of interstate facilities provided by the Issuing, Concurring, Connecting or Other Participating Carriers of this tariff, hereinafter referred to as the Telephone Company.

When special construction of facilities is required, the provisions of this tariff apply in addition to all regulations, rates, and charges set forth in the appropriate service tariff.

14.2 Regulations

14.2.1 Filing of Charges

Rates, charges and liabilities for special construction to provide facilities for use for one month or more are filed in 14.3 following, as appropriate.

Rates, charges and liabilities for the construction of facilities for use for less than one month are filed in supplements to this tariff.

14.2.2 Ownership of Facilities

The Telephone Company providing specially constructed facilities under the provisions of this tariff retains ownership of all such facilities.

14.2.3 Interval to Provide Facilities

Based on available information and type of service ordered, the Telephone Company will establish a completion date for the specially constructed facilities. If the scheduled completion date cannot be met due to circumstances beyond the control of the Telephone Company, a new completion date will be established and the customer will be notified.

14.2.4 Special Construction Involving Both Interstate and Intrastate Facilities

When special construction involves facilities to be used to provide both interstate and intrastate services, charges for the portion of the construction used to provide intrastate service shall be in accordance with the appropriate intrastate tariff.

(N)

(N)

ACCESS SERVICE

14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.5 Payments for Special Construction

(A) Payment of Charges

All bills associated with special construction are due in accordance with the regulations in the appropriate service tariff.

(B) Start/End of Billing

Billing of recurring charges for specially constructed facilities starts on the day after the facilities are made available for use. Billing accrues through and includes the day that the specially constructed facilities are discontinued.

(C) Credit Allowance for Service Interruption

In the event of a service interruption involving specially constructed facility, the customer shall receive a recurring monthly charge credit in accordance with the credit allowance provisions in the appropriate service tariff associated with the affected services.

When an interruption continues due to the failure of the customer to authorize the replacement of facilities subject to a Replacement Charge, as specified in 14.2.6 following, the credit allowance will be terminated on the seventh calendar day after the Telephone Company has provided the customer with written notification of the need for replacement. The credit allowance will resume on the day after the Telephone Company receives written authorization for the replacement from the customer.

(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction

(A) General

This section describes the various charges and liabilities that may apply when the Telephone Company provides special construction of facilities in accordance with an order for service. Written approval of all liabilities and charges must be provided to the Telephone Company prior to the start of construction.

(B) Conditions Requiring Special Construction

Special construction is required when 1) facilities are not available to meet an order for service, and 2) the Telephone Company constructs facilities, and 3) one or more of the following conditions exist:

- The Telephone Company has no other requirement for the facilities requested.
- It is requested that service be furnished using a type of facility, or via a route, other than that which the Telephone Company would normally utilize in furnishing the requested service.
- More facilities are requested than would normally be required to satisfy an order.
- It is requested that construction be expedited, resulting in added cost to the Telephone Company.

(C) Development of Liabilities and Charges

Special construction charges and liabilities will be developed based on estimated cost, except when actual costs are requested in writing prior to the start of special construction.

(D) Types of Liabilities and Charges

Depending on the specifics associated with each individual case, one or more of the following special construction charges and/or liabilities may be applicable:

(1) Nonrecurring Charge

A nonrecurring charge always applies and includes one or more of the following components:

(N)

(N)

ACCESS SERVICE

14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(1) Nonrecurring Charge (Cont'd)

- Case Preparation Charge

A nonrecurring charge always includes a case preparation charge component to cover the administrative expenses associated with preparing a special construction case and the associated tariff filing.

- Expediting Charge

A nonrecurring charge may include an expediting charge when it is requested that special construction be completed on an expedited basis. The charge equals the difference in estimated cost between expedited and nonexpedited construction.

- Optional Payment

An optional payment charge may be included in the nonrecurring charge in association with a type of facility or route other than that which the Telephone Company would normally use in furnishing the requested service if lower recurring monthly charges are desired for the specially constructed facilities. This charge is equal to the excess installed cost or the total nonrecoverable cost, whichever is less. This election must be made in writing before special construction starts. If this election is coupled with the actual cost option, the optional payment charge will reflect the actual cost of the specially constructed facilities.

- Replacement Charge

If any portion of specially constructed facilities for which an optional payment charge has been paid requires replacement involving capital investment, a replacement charge will apply. This charge will be in the same ratio to the total replacement costs as the initial optional payment charge was to the installed cost of the original specially constructed facilities. If any portion of the facilities subject to the replacement charge fails, service will not be restored until notification is provided in writing that replacement is required and such replacement is ordered.

(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6. Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(1) Nonrecurring Charge (Cont'd)

- Rearrangement Charge

If the Telephone Company is requested to rearrange existing specially constructed facilities, a nonrecurring charge equal to the cost of any special construction will apply.

- Special Construction of Facilities for Use for Less Than One Month

When the Telephone Company is requested to construct facilities to provide service for less than one month, a nonrecurring charge applies. In addition to the case preparation charge component, this nonrecurring charge recovers all elements of cost, including engineering, shipping of equipment, equipment installation, line-up, equipment leasing, space rental, equipment removal, and any other costs associated with the construction of the facilities.

(2) Maximum Termination Liability and Termination Charge

A Maximum Termination Liability is equal to the nonrecoverable costs associated with specially constructed facilities and is the maximum amount which could be applied as a Termination Charge if all specially constructed facilities were discontinued before the Maximum Termination Liability expires.

The liability period is equal to the average life of the account associated with the specially constructed facilities. The liability period is generally expressed in terms of an effective and expiration date.

The Maximum Termination Liability is filed with the initial tariff filing in decreasing amounts at ten-year intervals over the average life of the facilities. In the event that the average account life of the facilities is not an even multiple of ten, the last increment will reflect the appropriate number of years remaining.

Example Illustrating a 27-Year Average Account Life

<u>Maximum Termination Liability</u>	<u>Effective Date</u>	<u>Expiration Date</u>
\$10,000	6/1/84	6/1/94
7,000	6/1/94	6/1/04
3,000	6/1/04	6/1/11

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(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(2) Maximum Termination Liability and Termination Charge (Cont'd)

Prior to the expiration of each liability period, the customer has the option to (A) terminate the special construction case and pay the appropriate charges, or (B) extend the use of the specially constructed facilities for the new liability period.

The Telephone Company will notify the customer six months in advance of the expiration date of each ten-year liability period. The customer must provide the Telephone Company with written notification at least 30 days prior to the expiration of the liability period if termination is elected. Failure to do so will result in an automatic extension of the special construction case to the next liability period at the filed Maximum Termination Liability amount.

A Termination Charge may apply when all services using specially constructed facilities which have a tariffed Maximum Termination Liability are discontinued prior to the expiration of the liability period. The charge reflects the unamortized portion of the nonrecoverable costs at the time of termination, adjusted for net salvage and possible reuse. Administrative costs associated with the specific case of special construction and any cost for restoring a location to its original condition are also included. A Termination Charge may never exceed the filed Maximum Termination Liability.

A partial termination of specially constructed facilities will be provided, at the election of the customer. The amount of the Termination Charge associated with such partial termination is determined by multiplying the Termination Charge which would result if all services using the specially constructed facilities were discontinued, at the time partial termination is elected, by the percentage of specially constructed facilities to be partially terminated. A tariff filing will be made following a partial termination to list remaining Maximum Termination Liability amounts and the number of specially constructed facilities the customer will remain liable for.

Example

A customer with a filed Maximum Termination Liability of \$100,000 for 3600 specially constructed facilities requests a partial disconnection of 900 facilities. The Termination Charge for all facilities, at the time of the election, is \$60,000. The partial termination charge, in this example, is $\$60,000 \times 900/3600$, or \$15,000.

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(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(3) Annual Underutilization Liability and Underutilization Charge

Prior to the start of the special construction, the Telephone Company and the customer will agree on (1) the quantity of facilities to be provided, and (2) the length of the planning period during which the customer expects to place the facilities in service. The planning period is hereafter referred to as the Initial Liability Period (ILP). The ILP is listed in the tariff with an effective and expiration date.

Underutilization occurs only if, at the expiration date of the ILP and annually thereafter, less than 70 percent of the specially constructed facilities are in service at the filed tariff service rates.

An annual underutilization amount is filed on a per unit basis (e.g., per cable pair) for each case of special construction. This amount is equal to the annual per unit cost and includes depreciation, maintenance, administration, return, taxes and any other costs identified in the supporting documentation provided at the time the special construction case is filed.

Upon the expiration of the ILP, the number of underutilized facilities, if any, are multiplied by the annual underutilization liability amount. This product is then multiplied by the number of years (including any fraction thereof) in the ILP to determine the underutilization charge.

Annually thereafter, the number of underutilized facilities, if any, existing on the anniversary of the ILP expiration date will be multiplied by the annual underutilization liability amount to determine the underutilization charge for the preceding 12 month period.

(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(3) Annual Underutilization Liability and Underutilization Charge (Cont'd)

Example

A customer orders 100 services and the special construction of 600 pair riser cable is agreed to, based on the customer's 5 year facility requirement. The ILP, in this example, would be filed for 5 years. The annual underutilization liability is filed at \$2.00 per pair. If 400 pairs were in service at the end of the ILP, there would be an underutilization of 20 pairs, i.e., 420 (70% of 600) - $400 = 20$. The total underutilization charge for the first 5 years would be \$200.00, or \$2.00 per pair x 20 pairs x 5 years.

If 420 pairs are in service at the end of the 6th year, there would be no underutilization, i.e., $420 - 420 = 0$.

(4) Recurring Monthly Charges

- Charge for Route or Type Other than Normal

When special construction is requested using a route or type of facility other than that which the Telephone Company would normally use, a recurring monthly charge, in addition to the monthly rates for service, is applicable. The charge is equal to the difference between the recurring costs of the specially constructed facilities and the recurring costs of the facilities the Telephone Company would have normally used.

(a) When an Optional Payment Charge as set forth in 14.2.6 (D) (1) preceding has been elected, the recurring monthly charge will be reduced to include specially constructed facility operating expense only.

(b) If the actual cost option as set forth in 14.2.6 (C) preceding has been elected, the recurring charge will be adjusted to reflect the actual cost of the new construction when the costs have been determined. This adjusted recurring charge is applicable from the start of service.

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.6 Liabilities and Charges for Special Construction (Cont'd)

(D) Types of Liabilities and Charges (Cont'd)

(5) Lease Charge

This charge applies when the Telephone Company leases equipment in order to meet service requirements. The amount of the charge is equal to the net added cost to the Telephone Company caused by the lease.

(6) Cancellation Charge

If a service order with which special construction is associated is cancelled prior to the start of service, a cancellation charge will apply. The charge will include all nonrecoverable costs incurred by the Telephone Company in association with the special construction up to and including the time of cancellation.

14.2.7 Deferral of Start of Service

The Telephone Company may be requested to defer the start of service which will use the specially constructed facilities subject to the provisions set forth in the service tariff under which service is being provided. Requests for special construction deferral must be in writing and are subject to the following regulations:

(A) Construction Has Not Begun

If the Telephone Company has not incurred any installation costs before receiving a request for deferral, no charge applies.

(B) Construction Has Begun

If the construction of facilities has begun before the Telephone Company receives a request for deferral, charges will vary as follows:

(1) All Services Are Deferred

When all service which will use specially constructed facilities are deferred, a charge based on the costs incurred by the Telephone Company during each month of the deferral will apply. Those costs include the recurring costs for that portion of the facilities already completed and any other costs associated with the deferral. The cost of any components of the nonrecurring charge which have been completed at the time of the deferral will also apply.

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(N)

(N)

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14. Special Construction (Cont'd)

14.2 Regulations (Cont'd)

14.2.7 Deferral of Start of Service (Cont'd)

(B) Construction Has Begun (Cont'd)

(2) Some Services Are Deferred

When some services which will use the specially constructed facilities are deferred, the construction case will be completed and all special construction charges will apply.

(C) Construction Complete

If the construction of facilities has been completed before the Telephone Company receives a request for deferral, all special construction charges will apply.

14.2.8 Definitions

Actual Cost - The term "Actual Cost" denotes all costs charged against a specific case of special construction, including all appropriate taxes.

Annual Underutilization Liability - The term "Annual Underutilization Liability" denotes a unit amount which may be billed annually if fewer services are in use utilizing specially constructed facilities at filed tariff rates than were originally specially constructed.

Estimated Cost - The term "Estimated Cost" denotes all estimated costs that will be incurred in providing a specific case of special construction, including any appropriate taxes.

Facilities - The term "Facilities" denotes any cable, poles, conduits, microwave or carrier equipment, wire center distribution frames, central office switching equipment, etc., utilized to provide interstate services.

Initial Liability Period - The term "Initial Liability Period" denotes the initial planning period during which the customer expects to place specially constructed facilities in service.

Installed Cost - The term "Installed Cost" denotes the total investment (estimated or actual) required by the Telephone Company to provide specially constructed facilities.

(N)

(N)

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14. Special Construction (Cont'd)
14.2 Regulations (Cont'd)
14.2.8 Definitions (Cont'd)

(N)

Maximum Termination Liability - The term "Maximum Termination Liability" denotes the maximum amount which may be billed if all services using specially constructed facilities are terminated prior to the expiration of the Maximum Termination Liability Period.

Maximum Termination Liability Period - The term "Maximum Termination Liability Period" denotes the length of time for which a termination charge may apply if all services using specially constructed facilities are terminated.

Net Salvage - The term "Net Salvage" denotes the estimated scrap, sale, or trade-in value, less the estimated cost of removal. Cost of removal includes the costs of demolishing, tearing down, or otherwise disposing of the material and any other applicable costs. Since the cost of removal may exceed salvage value, net salvage may be negative.

Nonrecoverable Cost - The term "Nonrecoverable Cost" denotes the cost of specially constructed facilities for which the Telephone Company has no foreseeable use should the service be terminated.

Normal Construction - The term "Normal Construction" denotes all facilities the Telephone Company would normally use to provide service in the absence of a requirement for special construction.

Normal Cost - The term "Normal Cost" denotes the estimated cost to provide services using normal construction.

Permanent Facilities - The term "Permanent Facilities" denotes facilities providing service for one month or more.

Recoverable Cost - The term "Recoverable Cost" denotes the cost of the specially constructed facilities for which the Telephone Company has a foreseeable reuse, either in place or elsewhere, should the service be terminated.

Termination Charge - The term "Termination Charge" denotes the portion of the Maximum Termination Liability that is applied as a nonrecurring charge when all services are discontinued prior to the expiration of the specified liability period.

(N)

TELEPHONE UTILITIES
EXCHANGE CARRIER ASSOCIATION

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14. Special Construction (Cont'd)

14.3 Special Construction Cases:

<u>Case No.</u>	<u>Telephone Co./ Customer Name</u>	<u>Description</u>	<u>Charge/ Liability</u>	<u>Effective Date</u>	<u>Expiration</u>
1.	CenturyTel of Washington, Inc./ Voicestream	Special construction of Entrance Facilities to customer location in North Bend, Wa for OC 48 installation	MTL \$10,917	12/15/00	12/15/05 MTL reduction of \$181.95 per Month

(N)

(N)

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications

15.1 contains Switched Access Service Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level and Local Transport Termination) and Transmission Specifications. 15.2 describes Special Access Service Network Channel (NC) codes and Network Channel Interface (NCI) codes.

15.1 Switched Access Service

Ten Interface Groups are provided for terminating the Local Transport Entrance Facility at the customer's designated premises. Each Interface Group provides a specified premises interface (e.g., two-wire, four-wire, DS1, etc.). Where transmission facilities permit, and at the option of the customer, the Entrance Facility may be provided with optional features as set forth in 15.1.1 following.

As a result of the customer's access order and the type of Telephone Company transport facilities serving the customer designated premises, the need for signaling conversions or two-wire 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.

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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 1 is provided with Type C Transmission Specifications, as set forth in 15.1.2(C) following, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, as set forth respectively in 15.1.2(E) and (F) following, depending on the Feature Group and whether the Access Service is routed directly or through an access tandem. All Interface Groups are provided with Data Transmission Parameters.

Only certain premises interfaces are available at the customer designated premises. The premises interfaces associated with the Interface Groups may vary among Feature Groups.

(A) Interface Group 1

Interface Group 1, except as set forth in the following, provides two-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

Interface Group 1 is not provided in association with FGC and FGD when the first point of switching is an access tandem. In addition, Interface Group 1 is not provided in association with FGB, FGC or FGD when the first point of switching provides only four-wire terminations.

ACCESS SERVICE

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)

(A) Interface Group 1 (Cont'd)

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) Interface Group 2

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

The transmission path between the point of termination at the customer designated premises and the customer'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.

ACCESS SERVICE

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)

(B) Interface Group 2 (Cont'd)

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.

<u>Interface Group Identification No.</u>	<u>Transmission Frequency Bandwidth</u>	<u>Analog Hierarchy Level</u>	<u>Maximum No. of Channelized Voice Freq. Trans. Paths</u>
3	60 - 108 kHz	Group	12
4	312 - 552 kHz	Supergroup	60
5	564 - 3084 kHz	Mastergroup	600

ACCESS SERVICE

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)

(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.

<u>Interface Group Identification No.</u>	<u>Nominal Bit Rate (Mbps)</u>	<u>Digital Hierarchy Level</u>	<u>Max. No. of Channelized Voice Freq. Trans. Paths</u>
6	1.544	DS1	24
9	44.736	DS3	672

ACCESS SERVICE

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)

(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 17.4.1(A) following is applicable on a per order basis when nonchargeable optional features are added subsequent to the installation of service.

- Customer Specified Entry Switch Receive Level

Customer Specified Entry Switch Receive Level allows the customer to specify the receive transmission level at the first point of switching. The range of transmission levels which may be specified is described in Technical Reference TR-NPL-000334. This feature is available with Interface Groups 2 through 10 for Feature Groups A and B.

- Customer Specification of Local Transport Termination

Customer Specification of Local Transport Termination allows the customer to specify, for Feature Group B routed directly to an end office or access tandem, a four-wire termination of the Local Transport at the first point of switching in lieu of a Telephone Company selected two-wire termination. This option is available only when the Feature Group B arrangement is provided with Type B Transmission Specifications.

- Supervisory Signaling

Supervisory Signaling allows the customer to order an optional supervisory signaling arrangement for each transmission path provided where the transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability.

ACCESS SERVICE

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)

(E) Local Transport Optional Features (Cont'd)

The Interface Groups, as described in (A) through (D) preceding, represent industry standard arrangements. Where transmission parameters permit, the customer may select the following optional signaling arrangements in place of the signaling arrangements standardly associated with the Interface Groups.

- For Interface Groups 1 and 2 associated with FGB, FGC or FGD

DX Supervisory Signaling,
E&M Type I Supervisory Signaling,
E&M Type II Supervisory Signaling, or
E&M Type III Supervisory Signaling

- For Interface Group 2 associated with FGB, FGC or FGD and in addition to the preceding

SF Supervisory Signaling, or
Tandem Supervisory Signaling

- For Interface Groups 3 through 5

Optional Supervisory Signaling Not Available

- For Interface Groups 6 through 10

These Interface Groups may, at the option of the customer, be provided with individual transmission path SF supervisory signaling where such signaling is available in Telephone Company central offices. Generally such signaling is 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 not available in combination with the SS7 optional feature as described in 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.

ACCESS SERVICE

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)

(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 15.2.2(A) following.

<u>Interface Group</u>	<u>Telephone Company Switch Supervisory Signaling</u>	<u>Premises Interface Code</u>	<u>Feature Group</u>				
			<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	
1	LO	2LS2	X				
	LO	2LS3	X				
	GO	2GS2	X				
	GO	2GS3	X				
	LO, GO	2DX3	X				
	LO, GO	4EA3-E	X				
	LO, GO	4EA3-M	X				
	LO, GO	6EB3-E	X				
	LO, GO	6EB3-M	X				
	RV, EA, EB, EC	2DX3		X	X	X	
	RV, EA, EB, EC	4EA3-E		X	X	X	
	RV, EA, EB, EC	4EA3-M		X	X	X	
	RV, EA, EB, EC	6EB3-E		X	X	X	
	RV, EA, EB, EC	6EB3-M		X	X	X	
	EA, EB, EC	6EC3			X	X	
	RV	2RV3-0			X	X	
	RV	2RV3-T			X	X	
	SS7	2NO2			X	X	
	2	LO, GO	4SF2	X			
		LO, GO	4SF3	X			
LO		4LS2	X				
LO		4LS3	X				
LO		6LS2	X				

ACCESS SERVICE

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)

(F) Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company Switch Supervisory Signaling	Premises Interface Code	Feature Group				
			A	B	C	D	
2 (Cont'd)	GO	4GS2	X				
	GO	4GS3	X				
	GO	6GS2	X				
	LO, GO	4DX2	X				
	LO, GO	4DX3	X				
	LO, GO	6EA2-E	X				
	LO, GO	6EA2-M	X				
	LO, GO	8EB2-E	X				
	LO, GO	8EB2-M	X				
	LO, GO	6EX2-B	X				
	RV, EA, EB, EC	4SF2		X	X	X	
	RV, EA, EB, EC	4SF3		X			
	RV, EA, EB, EC	4DX2		X	X	X	
	RV, EA, EB, EC	4DX3		X			
	RV, EA, EB, EC	6DX2			X		
	RV, EA, EB, EC	6EA2-E		X	X	X	
	RV, EA, EB, EC	6EA2-M		X	X	X	
	RV, EA, EB, EC	8EB2-E		X	X	X	
	RV, EA, EB, EC	8EB2-M		X	X	X	
	EA, EB, EC	8EC2-M			X	X	
	RV	4RV2-O		X	X	X	
	RV	4RV2-T		X	X	X	
	RV	4RV3-O		X	X		
	RV	4RV3-T		X	X		
	SS7	4NO2			X	X	
	3	LO, GO	4AH5-B	X			
		RV, EA, EB, EC	4AH5-B		X	X	X
	4	SS7	4AH5-B		X	X	
		LO, GO	4AH6-C	X			
		RV, EA, EB, EC	4AH6-C		X	X	X
5	SS7	4AH6-C		X	X		
	LO, GO	4AH6-D	X				
	RV, EA, EB, EC	4AH6-D		X	X	X	
	SS7	4AH6-D		X	X		

ACCESS SERVICE

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)

(F) Available Premises Interface Codes (Cont'd)

Interface Group	Telephone Company 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
	RV, EA, EB, EC	4DS9-15L		X	X	X
	SS7	4DS9-15			X	X
7	LO, GO	4DS9-31	X			
	LO, GO	4DS9-31L	X			
	RV, EA, EB, EC	4DS9-31		X	X	X
	RV, EA, EB, EC	4DS9-31L		X	X	X
	SS7	4DS9-31			X	X
8	LO, GO	4DS0-63	X			
	LO, GO	4DS0-63L	X			
	RV, EA, EB, EC	4DS0-63		X	X	X
	RV, EA, EB, EC	4DS0-63L		X	X	X
	SS7	4DS0-63			X	X
9	LO, GO	4DS6-44	X			
	LO, GO	4DS6-44L	X			
	RV, EA, EB, EC	4DS6-44		X	X	X
	RV, EA, EB, EC	4DS6-44L		X	X	X
	SS7	4DS6-44			X	X
10	LO, GO	4DS6-27	X			
	LO, GO	4DS6-27L	X			
	RV, EA, EB, EC	4DS6-27		X	X	X
	RV, EA, EB, EC	4DS6-27L		X	X	X
	SS7	4DS6-27			X	X

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (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 15.1.3(A) and (B) following:

(A) Feature Group A

FGA is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the first point of switching. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGA to the first point of switching.

(B) Feature Group B

FGB is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the end office when routed directly or to the first point of switching when routed via an access tandem. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGB to the first point of switching.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(C) Feature Group C

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

- When routed directly to the end office either Type B or Type C is provided.
- When routed to an access tandem only Type B is provided.
- Type B or Type C is provided on the transmission path from the access tandem to the end office.

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

Type DB Data Transmission Parameters are provided with FGC for the transmission path between the customer designated premises and the end office when directly routed to the end office, and between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(D) Feature Group D

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

- When routed to the end office either Type B or C is provided.
- When routed to an access tandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.

Type C Transmission Specifications are provided with Interface Group 1. Type A and Type B Transmission Specifications are provided with Interface Groups 2 through 10.

Type DB Data Transmission Parameters are provided with FGD for the transmission path between the customer designated premises and the end office when directly routed to the end office. Type DA Data Transmission Parameters are provided for the transmission path between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

(E) Type A Transmission Specifications

Type A Transmission Specifications is provided with the following parameters:

(1) Loss Deviation

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

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(E) Type A Transmission Specifications (Cont'd)

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to the loss at 1004 Hz is -1.0 dB to +3.0 dB.

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	32 dBrnCO
51 to 100	34 dBrnCO
101 to 200	37 dBrnCO
201 to 400	40 dBrnCO
401 to 1000	42 dBrnCO

(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone, is less than or equal to 45 dBrnCO.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(E) Type A Transmission Specifications (Cont'd)

(5) Echo Control

Echo Control, identified as Equal Level Echo Path Loss, and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	21 dB	14 dB
POT to End Office		
- Direct	N/A	N/A
- Via Access Tandem	16 dB	11 dB

(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
5 dB	2.5 dB

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications

Type B Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

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

(2) Attenuation Distortion

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

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise*</u>	
	<u>Type B1</u>	<u>Type B2</u>
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) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

* For Feature Groups C and D only Type B2 will be provided. For Feature Groups A and B, Type B1 or B2 will be provided as set forth in Technical Reference TR-NPL-000334.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (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:

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

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(F) Type B Transmission Specifications (Cont'd)

(6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Singing Return Loss, on two-wire ports of a four-wire point of termination shall be equal to or greater than:

Echo Return Loss

5 dB

Singing Return Loss

2.5 dB

(G) Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters:

(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is ± 3.0 dB.

(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +5.5 dB.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(G) Type C Transmission Specifications (Cont'd)

(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise*</u>	
	<u>Type C1</u>	<u>Type C2</u>
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) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

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

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.2 Standard Transmission Specifications (Cont'd)

(G) Type C Transmission Specifications (Cont'd)

(5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	13 dB	6 dB
POT to End Office		
- Direct	13 dB	6 dB
- Via Access Tandem (for FGB only)	8 dB	4 dB

15.1.3 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Feature Group arrangements. Type DB is provided with Feature Groups A, B and C and also with Feature Group D when Feature Group D is directly routed to the end office. Type DA is only provided with Feature Group D and only when routed via an access tandem. Following are descriptions of each.

(A) Data Transmission Parameters Type DA

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 33 dB.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters (Cont'd)

(A) Data Transmission Parameters Type DA (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 dBmCO threshold in 15 minutes is no more than 15 counts.

(4) Intermodulation Distortion

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

Second Order (R2)	33 dB
Third Order (R3)	37 dB

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters (Cont'd)

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

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5 peak-to-peak.

(6) Frequency Shift

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

(B) Data Transmission Parameters Type DB

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles 800 microseconds

equal to or greater than
50 route miles 1000 microseconds

1004 to 2404 Hz

less than 50 route miles 320 microseconds

equal to or greater than
50 route miles 500 microseconds

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.1 Switched Access Service (Cont'd)

15.1.3 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB (Cont'd)

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dBmCO 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)	31 dB
Third Order (R3)	34 dB

(5) Phase Jitter

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

(6) Frequency Shift

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

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service

This section explains and lists the codes that the customer must specify when ordering Special Access Service, Switched Access Entrance Facilities, and Voice Grade and High Capacity Direct Trunked Transport. These codes provide a standardized means to relate the services being ordered to Special Access Service offerings contained in Section 7. preceding.

When ordering, the type of Special Access Service or Switched Access Entrance Facility or Direct Trunked Transport is described by two code sets, the Network Channel (NC) code and the Network Channel Interface (NCI) codes.

The Network Channel (NC) code consists of two elements. Element one is a Channel Service Code (character positions 1 and 2) that describes the channel service type in an abbreviated form. Element two is an Optional Feature Code (character positions 3 and 4) that identifies option codes available for each channel service code, such as C-conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Telephone Company and the customer.

On the following 3 pages are examples which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types (e.g., TG1 = Telegraph). The SD and NC codes are displayed as components of the matrices designated as Technical Specifications packages in (A) through (G) following. Through the use of these matrices, SD codes may be converted to NC codes for service ordering purposes.

A chart is also provided in 15.2.2(A) following which contains information necessary to develop NCI codes.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Special Report SR-ST5-000307. However, not all services contained in this Special Report may be offered by the Telephone Company at this time.

Lastly, 15.2.2(C) following provides a list of compatible Network Channel Interfaces inasmuch as the Network Channel Interfaces associated with a given service need not always be the same, but all must be compatible.

Example No. 1: If the customer wishes to order a 4-wire voice grade circuit with 600 Ohms impedance, capable of data transmission, and with improved return loss, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LG-R	04DB2	04DA2-S

NC Code:

LG = Voice Grade Channel Service, VG6
-R = Improved Return Loss

NCI Code:

04 = Number of physical wires at CDP
DB = Data stream in VF frequency band at the customer designated main terminal location
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

04 = Number of physical wires at CDP
DA = Data stream in VG frequency at the customer designated secondary terminal location
2 = 600 Ohms impedance
S = Sealing current option for 4-wire transmission

In the above example the NCI (Network Channel Interface) code is the interface requested at the customer's POT (Point of Termination) and the SECNCI (Secondary Network Channel Interface) code represents the interface at the end office serving the End User.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

Example No. 2: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LC--	04LO2	02LS2

NC Code:
LC = Voice Grade Channel Service, VG2
-- = No Optional Features

NCI Code:
04 = Number of physical wires at CDP
LO = Loop start, loop signaling - open end
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):
02 = Number of physical wires at CDP
LS = Loop start signaling - closed end
2 = 600 Ohms impedance

Example No. 3: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
HC--	04DS9-15	04DS9-15

NC Code:
HC = High Capacity Channel Service, HC1
-- = No Optional Features

NCI, SECNCI Code:
04 = Number of physical wires at CDP
DS = Digital hierarchy interface
9 = 100 Ohms impedance
15 = 1.544 Mbps (DS1) format

The preceding three examples use information contained in Special Report SR-ST5-000307.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes

In order to determine the NC code appropriate for the service to be ordered, the type of Special Access Service the customer wishes must be identified. This identification is accomplished by a Service Designator (SD) code. The broad categories of Service Designator codes (e.g., VG, MT, TG, etc.) are set forth in Section 7. preceding. Variations within service type (e.g., VG1, MTC, TG2, etc.) are described in the various Technical Publications cited in (A) through (G) following.

Having determined the specific service type to be ordered and its SD code, and having used the appropriate Technical Publication, the customer should match the SD code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth in 15.2.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

(A) Technical Specifications Packages Metallic Service

	<u>Package</u>				
	<u>SD Code</u> <u>NC Code</u>	<u>MTC*</u> <u>MQ</u>	<u>MT1</u> <u>NT</u>	<u>MT2</u> <u>NU</u>	<u>MT3</u> <u>NV</u>
<u>Parameter</u>					
DC Resistance					
Between Conductors		X	X	X	
Loop Resistance		X			X
Shunt Capacitance		X			X
<u>Optional Features</u> <u>and Functions</u>					
Three Premises Bridging		X	X		X
Series Bridging		X		X	

The technical specifications are described in Technical Reference TR-NPL-000336.

* All parameters are available within ranges selected by the customer where technically feasible.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(B) Technical Specifications Packages Telegraph Grade Service

SD Code NC Code	<u>Package</u>		
	<u>TGC*</u>	<u>TG1</u>	<u>TG2</u>
	<u>NQ</u>	<u>NW</u>	<u>NY</u>
<u>Parameter</u>			
Telegraph Distortion	X	X	X
<u>Optional Features and Functions</u>			
Telegraph Bridging	X	X	X

The technical specifications are described in Technical Reference TR-NPL-000336.

* All parameters are available within ranges selected by the customer where technically feasible.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(C) Technical Specifications Packages Voice Grade Service

SD Code NC Code	C* LQ	Package VG-												W SE
		1 LB	2 LC	3 LD	4 LE	5 LF	6 LG	7 LH	8 LJ	9 LK	10 LN	11 LP	12 LR	
<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

The technical specifications for these parameters (except for dropouts, phase hits, and gain hits) are described in Technical References TR-NPL-000334 and TR-TSY-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004, Table 4.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(C) Technical Specifications Packages Voice Grade Service (Cont'd)

SD Code NC Code	<u>C*</u> <u>LQ</u>	<u>Package VG-</u>											<u>W</u> <u>SE</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>Optional Features and Functions</u>														
Central Office Bridging Capability	X		X			X	X					X	X	X
Central Office Multiplexing	X						X							
Conditioning: C-Type Improved	X					X	X	X	X	X	X			
Attenuation Distortion Improved Envelope		X					X	X	X	X	X	X		
Delay Distortion		X					X	X	X	X	X	X		
Sealing Current	X						X							
Data Capability	X						X	X			X			
Telephoto Capability		X												X
Customer Specified Premises Receive Level	X		X	X				X	X	X				
Improved Return Loss for Effective Four-Wire Transmission		X	X	X	X	X	X	X	X	X	X	X	X	X
Improved Two-Wire Transmission		X		X	X				X					
Improved Two-Wire Voice Transmission														X
PPSN Interface Arrangement			X									X		
Selective Signaling Arrangement		X		X			X	X				X	X	X
Signaling Capability		X	X	X	X				X	X	X	X	X	
Transfer Arrangement		X	X	X	X	X	X	X	X	X	X	X	X	X

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(D) Technical Specifications Packages Program Audio Service

<u>Parameter</u>	SD Code NC Code	<u>Package</u>				
		<u>APC*</u> <u>PQ</u>	<u>AP1</u> <u>PE</u>	<u>AP2</u> <u>PF</u>	<u>AP3</u> <u>PJ</u>	<u>AP4</u> <u>PK</u>
Actual Measured Loss		X	X	X	X	X
Amplitude Tracking		X				
Crosstalk		X	X	X	X	X
Distortion Tracking		X				
Gain/Frequency Distortion		X	X	X	X	X
Group Delay		X				
Noise		X	X	X	X	X
Phrase Tracking		X				
Short-Term Gain Stability		X				
Short-Term Loss		X				
Total Distortion		X	X	X	X	X
<u>Optional Features and Functions</u>						
Central Office Bridging Capability		X	X	X	X	X
Gain Conditioning		X	X	X	X	X
Stereo		X				X

The technical specifications are described in Technical Reference TR-NPL-000337 and associated Addendum.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.1 Network Channel (NC) Codes (Cont'd)

(F) Technical Specifications Packages Digital Data Service

	<u>Package</u>						
	<u>SD Code</u>	<u>D1</u>	<u>D2</u>	<u>D3</u>	<u>D4</u>	<u>D5</u>	<u>D6</u>
<u>NC Code</u>	<u>XA</u>	<u>XB</u>	<u>XG</u>	<u>XH</u>	<u>XE</u>	<u>YN</u>	
<u>Parameter/Hubbed</u>							
Error-Free Seconds		X	X	X	X	X	X
<u>Optional Features and Functions/Hubbed</u>							
Central Office Bridging Capability	X	X	X	X	X	X	X
PPSN Interface Transfer Arrangement	X	X	X	X	X	X	X
Transfer Arrangement		X	X	X	X	X	X

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Optional Features and Functions/Non-Hubbed

Public Packet Data Arrangement X X

Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-000341.

ACCESS SERVICE

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)

(G) Technical Specifications Packages High Capacity Service

SD Code	Package					
	HC0	HC1	HC1C	HC2	HC3	HC4
NC Code	HS	HC	HD	HE	HF	HG

Parameters

Error-Free Seconds X

Optional Features
and Functions

Automatic Loop Transfer X

Central Office Multiplexing:

DS3 to DS1 X

DS1 to Voice X

DS1 to DS0 X

DS0 to Subrate* X

Transfer Arrangement X

Clear Channel Capability X

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

* Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes

The electrical interface with the Telephone Company for Special Access Services, is defined by an interface code. There are interface codes for both the customer designated premises and the point of termination. Three examples of NCI codes are found in 15.2 preceding.

(A) Parameter Codes and Options

Parameter

<u>Code</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
	- B	60 kHz to 108 kHz (12 channels)
	- C	312 kHz to 552 kHz (60 channels)
	- D	564 kHz to 3084 kHz (600 channels)
CT -		Centrex Tie Trunk Termination
CS -		digital hierarchy interface at Digital Cross Connect System (DCS)
	- 15	1.544 Mbps (DS1) ANSI Extended 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)
DA -		data stream in VF frequency band at customer's end user's point of termination
DB -		data stream in VF frequency band at customer's point of termination
	- 10	VF for TG1 and TG2
	- 43	VF for 43 Telegraph Carrier type signals TG1 and TG2
DC -		direct current or voltage
	- 1	monitoring interface with series RC combination (McCulloh format)
	- 2	Telephone Company energized alarm channel
	- 3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)
DD -		DATAPHONE Select-A-Station (and TABS) interface at customer's point of termination
DE -		DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DS -		digital hierarchy interface
	- 15	1.544 Mbps (DS1) format per PUB 62411 plus D4
	- 15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	- 15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	- 15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	- 15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	- 15J	1.544 Mbps format per PUB 62411
	- 15K	1.544 Mbps format per PUB 62411 plus extended framing format
	- 15L	1.544 Mbps (DS1) with SF signaling
	- 44	44.736 Mbps (DS3)
	- 44L	44.736 Mbps (DS3) with SF signaling
DU -		digital access interface
	- 24	2.4 kbps
	- 48	4.8 kbps
	- 19	19.2 kbps
	- 56	56.0 kbps
	- 96	9.6 kbps
	- 64	64.0 kbps
	- A	1.544 Mbps format per PUB 62411
	- B	1.544 Mbps format per PUB 62411 plus D4
	- C	1.544 Mbps format per PUB 62411 plus extended framing format
	- 1KN	1.544 Mbps ANSI Extended Superframe (ESF) Format without line power
	- 1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line power
	- AN	1.544 Mbps free-framing format without line power (only avail. to U.S. Govt. agencies)
	- BN	1.544 Mbps Superframe (SF) Format without line power
	- DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power
DX -		duplex signaling interface at customer's point of termination
DY -		duplex signaling interface at customer's end user's point of termination

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
EA - E		Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EA - M		Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB - E		Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EB - M		Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EC -		Type III E&M signaling at customer POT
EX - A		tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions.
EX - B		tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
GO -		ground start loop signaling - open end function by customer or customer's end user
GS -		ground start loop signaling - closed end function by customer or customer's end user
IA -		E.I.A. (25 pin RS-232)
LA -		end user loop start loop signaling - Type A OPS registered port open end
LB -		end user loop start loop signaling - Type B OPS registered port open end
LC -		end user loop start loop signaling - Type C OPS registered port open end
LO -		loop start loop signaling - open end function by customer or customer's end user
LR -		20 Hz automatic ringdown interface at customer with Telephone Company provided PLAR
LS -		loop start loop signaling - closed end function by customer or customer's end user
NO -		no signaling interface, transmission only

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(A) Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
PG -		program transmission - no dc signaling
	- 1	nominal frequency from 50 to 15000 Hz
	- 3	nominal frequency from 200 to 3500 Hz
	- 5	nominal frequency from 100 to 5000 Hz
	- 8	nominal frequency from 50 to 8000 Hz
PR -		protective relaying*
RV	- 0	reverse battery signaling, one way operation, originate by customer
	- T	reverse battery signaling, one way operation, terminate function by customer or customer's end user
SF -		single frequency signaling with VF band at either customer POT or customer's end user POT
TF -		telephotograph interface
TT -		telegraph/teletypewriter interface at either customer POT or customer's end user POT
	- 2	20.0 milliamperes
	- 3	3.0 milliamperes
	- 6	62.5 milliamperes
TV-		television interface
	- 1	combined (diplexed) video and one audio signal
	- 2	combined (diplexed) video and two audio signals
	- 5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two wire
	- 15	video plus one (or two) audio 15 kHz signal(s)

* Available only for the transmission of audio tone protective relaying signals used in the protection of electric power systems during fault conditions.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(B) Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

<u>Value (ohms)</u>	<u>Code(s)</u>
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9

* For those interface codes with a 4-wire transmission path at the customer designated POT, rather than a standard 900 ohm impedance the code (3) denotes a customer provided transmission equipment termination.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces

The following tables show the Network Channel Interface codes (NCIs) which are compatible:

(1) Metallic

Compatible CIs

2DC8-1	2DC8-2
2DC8-3	2DC8-3
4DS8-	2DC8-1
4DS8-	2DC8-2

(2) Telegraph Grade

Compatible CIs

2DB2-10	10IA8
	2TT2-2
	4TT2-2
2DB2-43*	10IA8
	2TT2-2
	2TT2-6
	4TT2-2
2TT2-2	2TT2-2
2TT2-3	2TT2-2
	4TT2-2
2TT2-6	2TT2-6
	4TT2-6

Compatible CIs

4DB2-10	10IA8
	2TT2-2
	4TT2-2
4DB2-43*	10IA8
	2TT2-6
	4TT2-2
4DS8-	10IA8
	2TT2-2
	2TT2-6
	4TT2-2
	4TT2-6
4TT2-2	4TT2-2
4TT2-6	2TT2-6

* Supplemental Channel Assignment information required.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2	2DX3	2LA2	2LS	2GS
	4DS8		2LB2		2LS
	4DX2		2LC2		4GS
	4DX3		2LO3		4LS
	4DY2		2LS2		
	4EA2-E		2LS3	2LS2	2LA2
	4EA2-M				2LB2
	4SF2	2GO2	2GS2	2LC2	
	4SF3		2GS3		
	6DX2			2LS3	2LA2
	6DY2	2GO3	2GS2		2LB2
	6DY3		2GS3		2LC2
	6EA2-E				
	6EA2-M	2GS	2GS	2NO2	2DA2
	6EB2-E		2LS		2NO2
	6EB2-M		4GS		
	6EB3-E		4LS	2NO3	2NO2
	8EB2-E				2PR2
	8EB2-M	2L02	2LS2		
	8EC2		2LS3	2TF3	2TF2
	9DY2				
	9DY3	2L03	2LS2		
	9EA2	2LS3			
	9EA3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4AB2	2AC2				
	4AB2				
	4AC2				
	4SF2				
4AB3	2AC2				
	4AC2				
	4SF2				
4AC2	2AC2				
	4AC2				
		4DS8-	2AC2	4DS8-	4DG2
			2DA2		4LR2
			2DY2		4LS2
			2GO2		4NO2
4DA2	4DA2		2GO3		4PR2
			2GS2		4RV2-T
4DB2	2DA2		2GS3		4SF2
	2NO2		2LA2		4SF3
	2PR2		2LB2		4TF2
	4DA2		2LC2		6DA2
	4DB2		2LO2		6DY2
	4NO2		2LO3		6DY3
	4PR2		2LR2		6EA2-E
	6DA2		2LS2		6EA2-M
			2LS3		6EB2-E
4DD3	2DE2		2NO2		6EB2-M
	4DE2		2PR2		6GS2
			2RV2-T		6LS2
			2TF2		8EB2-E
			4AC2		8EB2-M
			4DA2		9DY2
			4DE2		9DY3
			4DX2		9EA2
			4DX3		9EA3
			4DY2		
			4EA2-E		
			4EA2-M		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DX2	2DY2	4DX2	8EB2-E	4DX3	6DY2
	2LA2		8EB2-M		6DY3
	2LB2		9DY2		6EA2-E
	2LC2		9DY3		6EA2-M
	2LO3		9EA2		6EB2-E
	2LS2		9EA3		6EB2-M
	2LS3				6LS2
	2RV2-T	4DX3	2DY2		8EB2-E
	4DX2		2LA2		8EB2-M
	4DY2		2LB2		9DY2
	4EA2-E		2LC2		9DY3
	4EA2-M		2LO3		9EA2
	4LS2		2LS2		9EA3
	4RV2-T		2LS3		
	4SF2		2RV2-T	4DY2	2DY2
	4SF3		4DX2		4DY2
	6DY2		4DX3		
	6DY3		4DY2		
	6EA2-E		4EA2-E		
	6EA2-M		4EA2-M		
	6EB2-E		4LS2		
	6EB2-M		4RV2-T		
	6LS2		4SF2		
			4SF3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4EA2-E	2DY2	4EA3-E	2DY2	4GO2	2GO2
	4DY2		4DY2		2GO3
	4EA2-E		4EA2-E		2GS2
	4EA2-M		4EA2-M		2GS3
	4SF2		4SF2		4GS2
	6DY2		6DY2		4SF2
	6DY3		6DY3		6GS2
	6EB2-E		6EA2-E		
	6EB2-M		6EA2-M	4GO3	2GO2
	8EB2-E		6EB2-E		2GS2
	8EB2-M		6EB2-M		2GS3
	9DY2		8EB2-E		4GS2
	9DY3		8EB2-M		4SF2
			9DY2		6GS2
			9DY3		
4EA2-M	2DY2		9EA2		
	4DY2		9EA3	4GS	2GS
	4EA2-M				2LS
	4SF2				4GS
	6DY2				4LS
	6DY3				
	6EB2-E				
	6EB2-M				
	8EB2-E				
	8EB2-M				
	9DY2				
	9DY3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4LO2	2LS2	4LS3	2LA2	4SF2	2LO3
	2LS3		2LB2		2LR2
	4LS2		2LC2		2LS2
	4SF2		2LO2		2LS3
	6LS2		2LO3		2RV2-T
			4SF2		4AC2
4LO3	2LS2				4DY2
	2LS3	4NO2	2DA2		4LS2
	4LS2		2DE2	4RV2-T	4SF2
	4SF2		2NO2		6DY2
	6LS2		4DA2		6DY3
			4DE2		6GS2
4LR2	2LR2		4NO2		9DY2
	4LR2		6DA2		9DY3
	4SF2				
		4RV2-0	2RV2-T		
4LR3	2LR2		4RV2-T	4SF3	2DY2
	4LR2		4SF2		2GO3
	4SF2				2GS2
					2GS3
4LS	2GS	4SF2	2AC2		2LA2
	2LS		2DY2		2LB2
	4GS		2GS2		2LC2
	4LS		2GS3		2LO3
			2LA2		2LR2
4LS2	2LA2		2LB2		
	2LB2		2LC2		
	2LC2				
	2LO2				
	2LO3				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4SF3	2LS2	6DA	4DA2	6DY3	2DY2
	2LS3		6DA2		4DY2
	2RV2-T				6DY2
	4DY2	6DX2	2DY2		6DY3
	4EA2-E		4DY2		
	4EA2-M		4EA2-E	6EA2-E	2AC2
	4GS2				
	4LR2		4EA2-M		2DY2
	4LS2		4SF2		2LA2
	4RV2-T		6DY2		2LB2
	4SF2		6DY3		2LC2
	4SF3		6EA2-E		2LO3
	6DY2		6EA2-M		2LS2
	6DY3		6EB2-E		2LS3
	6EB2-E		6EB2-M	2RV2-T	
	6EB2-M		8EB2-E		4AC2
	6GS2		8EB2-M		4DY2
	6LS2		9DY2		EA2-E
	9DY2		9DY3		4EA2-M
	9DY3		9EA2		4LS2
	9EA2		9EA3		4RV2-T
	9EA3				4SF2
		6DY2	2DY2		4SF3
4TF2	2TF2		4DY2		6DY2
	4TF2		6DY2		6DY3
					6EA2-E
					6EA2-M

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EA2-E	6EB2-E	6EA2-M	6DY2	6EB3-E	2DY2
	6EB2-M		6DY3		4DY2
	6LS2		6EA2-M		4EA2-E
	8EB2-E		6EB2-E		4EA2-M
	8EB2-M		6EB2-M		4SF2
	9DY2		6LS2		6DY2
	9DY3		8EB2-E		6DY3
			8EB2-M		6EA2-E
6EA2-M	2AC2		9DY2		6EA2-M
	2DY2		9DY3		8EB2-E
	2LA2				8EB2-M
	2LB2	6EB2-E	2DY2		9DY2
	2LC2		4DY2		9DY3
	2LO3		4SF2		9EA2
	2LS2		6DY2		9EA3
	2LS3		6DY3		
	2RV2-T		6EB2-E	6EX2-A	2GS2
	4AC2		6EB2-M		2GS3
	4DY2		9DY2		2LS2
	4EA2-E		9DY3		2LS3
	4EA2-M				4GS2
	4LS2	6EB2-M	2DY2		4LS2
	4RV2-T		4DY2		4SF2
	4SF2		4SF2		6GS2
	4SF3		6DY2		6LS2
			6DY3		
			6EB2-M		
			9DY2		
			9DY3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EX2-B	2GO3	8EB2-E	2AC2	8EB2-M	2AC2
	2LA2		2DY2		2DY2
	2LB2		2LA2		2LA2
	2LC2		2LB2		2LB2
	2LO2		2LC2		2LC2
	2LO3		2LO3		2LO3
	2LR2		2LS2		2LS2
	4LR2		2LS3		2LS3
	4SF2		2RV2-T		2RV2-T
			4AC2		4AC2
6GO2	2GO2		4DY2		4DY2
	2GS2		4LS2		4LS2
	2GS3		4RV2-T		4RV2-T
	4GS2		4SF2		4SF2
	4SF2		4SF3		4SF3
	6GS2		6DY2		6DY2
			6DY3		6DY3
6LO2	2LS2		6EB2-E		6EB2-E
	2LS3		6EB2-M		6EB2-M
	4LS2		6LS2		6LS2
	4SF2		8EB2-E		8EB2-M
	6LS2		8EB2-M		9DY2
			9DY2		9DY3
6LS2	2LA2		9DY3		
	2LB2				
	2LC2				
	2LO2				
	2LO3				
	4SF2				

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
8EC2	2DY2	9DY2	2DY2	9EA3	2DY2
	4DY2		4DY2		4DY2
	4EA2-E		6DY2		4EA2-E
	4EA2-M		6DY3		4EA2-M
	4SF2		9DY2		6DY2
	6DY2				6DY3
	6DY3	9DY3	2DY2		6EA2-E
	6EA2-E		4DY2		6EA2-M
	6EA2-M		6DY2		6EB2-E
	6EB2-E		6DY3		6EB2-M
	6EB2-M		9DY2		8EB2-E
	8EB2-E		9DY3		8EB2-M
	8EB2-M				9DY2
	9DY2	9EA2	2DY2		9DY3
	9DY3		4DY2		9EA3
	9EA2		4EA2-E		
	9EA3		4EA2-M		
			6DY2		
			6DY3		
			6EA2-E		
			6EA2-M		
			6EB2-E		
			6EB2-M		
			8EB2-E		
			8EB2-M		
			9DY2		
			9DY3		
			9EA2		
			9EA3		

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(4) Program Audio

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2PG2-1	2PG1-1 2PG2-1	4DS8-15E	2PG1-3 2PG2-3
2PG2-3	2PG1-3 2PG2-3	4DS8-15F	2PG1-5 2PG2-5
2PG2-5	2PG1-5 2PG2-5	4DS8-15G	2PG1-8 2PG2-8
2PG2-8	2PG1-8 2PG2-8	4DA8-15H	2PG1-1 2PG2-1

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(6) Digital Data

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS8-15	4DS8-15+	4DU5-24	4DU5-24	6DU5-24	6DU5-24
	4DU5-24				
	4DU5-48	4DU5-48	4DU5-48	6DU5-48	6DU5-48
	4DU5-56				
	4DU5-96	4DU5-96	4DU5-96	6DU5-56	6DU5-56
	6DU5-24				
	6DU5-48	4DU8-56	4DU5-56	6DU5-96	6DU5-96
	6DU5-96				

+ Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company hub.

ACCESS SERVICE

15. Access Service Interfaces and Transmission Specifications (Cont'd)

15.2 Special Access Service (Cont'd)

15.2.2 Network Channel Interface (NCI) Codes (Cont'd)

(C) Compatible Network Channel Interfaces (Cont'd)

(7) High Capacity

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
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	4DU8-A,B or C	4DU8-A,B or C

(8) Synchronous Optical Channel Service

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS9-1S	4DU9-1S	02SOF-A	02SOF-A
4DS9-1K	4DU9-1K	02SOF-B	02SOF-B
		02SOF-C	02SOF-C
		02SOF-D	02SOF-D
		02SOF-E	02SOF-E
		02SOF-F	02SOF-F

(N)

(N)

ACCESS SERVICE

16. Public Packet Data Network

Public Packet Data Networks utilize separate data networks, comprised of switching 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. (C)

16.1 Frame Relay Access Service (C)

16.1.1 General

(A) 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 end user 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 American National Standards Institute and Telecommunication Standardization Bureau of the International Telecommunication Union (ITU- T), Committee Consultat de International Telegraphique et Telephonique (CCITT) standards. (C)

FRAS permits customers to share network bandwidth for data transmissions.

Rates and charges for FRAS are set forth in Section 17 following. The application of rates for FRAS is described in 16.1.2 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. (D)

(B) 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.

(D)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.1 General (Cont'd)

(B) Service Description (Cont'd)

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).

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 16.1.2(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.

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 American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992.

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 trunkside 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 Telcordia Technologies, Inc. Technical Reference TR-TSV-001370, Issued: May 1993.

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 (PVC), 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.

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.1 General (Cont'd)

(B) Service Description (Cont'd)

There are two types of PVCs available. The standard PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Telephone Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Telephone Company frame relay networks. A generic view of interconnected FRAS is shown in 16.1.2(A) following.

At the time service is ordered the number of PVCs will be identified along with their Committed Information Rates. CIR is the bit rate at which the FRAS network commits to transfer data. Committed Information Rates provide for frame relay switch throughput at designated speeds (See 17.6.7.1(F) following). This information is required for network routing purposes.

(C) Service Provided by More than One Telephone Company

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 (PVC) 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 (See 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 16.1.2(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.

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.1 General (Cont'd)

(D) Ordering Options and Conditions

Frame Relay 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 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.

(E) Acceptance Testing

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

(C)

(C)

(T)

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Issued: August 1, 2002
 Effective: August 16, 2002

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations

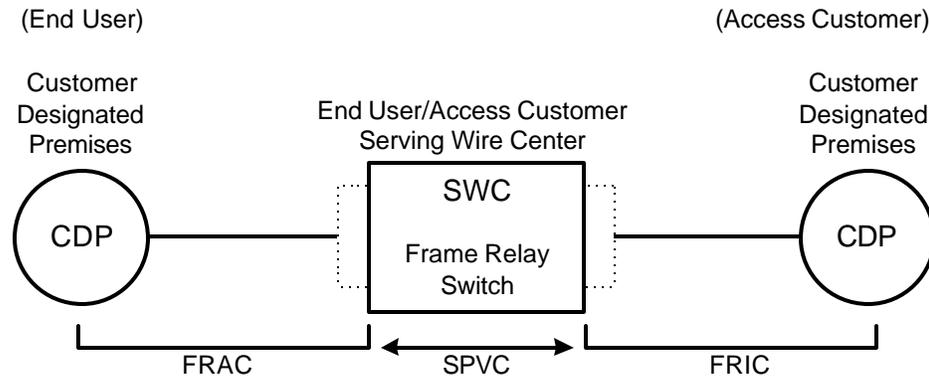
This section contains the specific regulations governing the rates and charges that apply for Frame Relay Access Service.

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 a generic view of the components of Frame Relay Access Service and the manner in which the components are combined to provide FRAS and Interconnected FRAS and Jointly-Provided FRAS.

Customer's Serving Wire Center is equipped with a Frame Relay Switch



RATE ELEMENTS

- FRAC = Frame Relay Access Connection
- SPVC = Standard Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

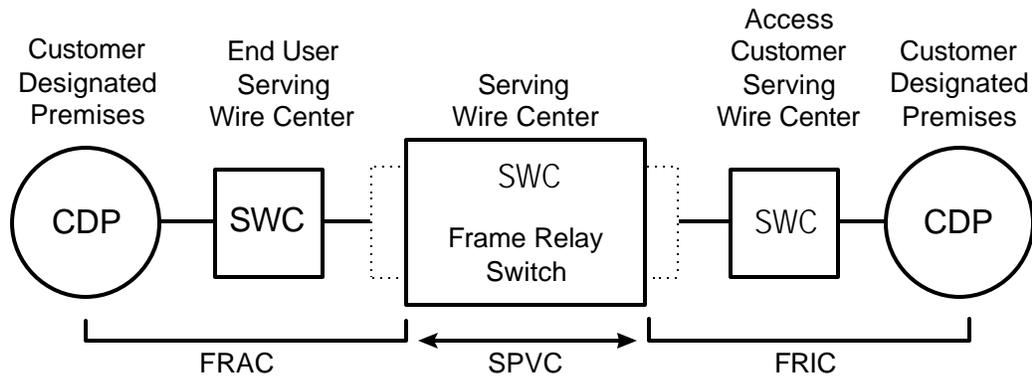
16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

Frame Relay Access Service

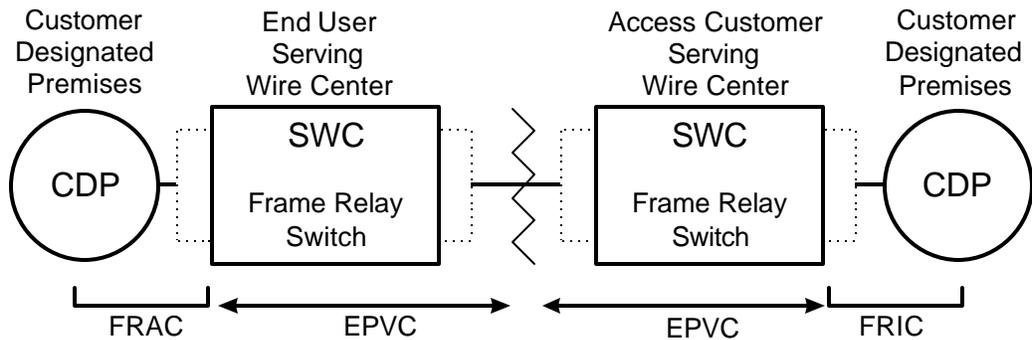
Customer's Serving Wire Center is not equipped with a frame relay switch



Interconnected Frame Relay Access Service

EC A *

EC B *



RATE ELEMENTS

- FRAC = Frame Relay Access Connection
- EPVC = Extended Permanent Virtual Connection
- FRIC = Frame Relay Inter-network Connection

* If EC A or EC B is a non-TUECA company, the application of their charges will depend upon EC A or EC B's access tariff.

(C)

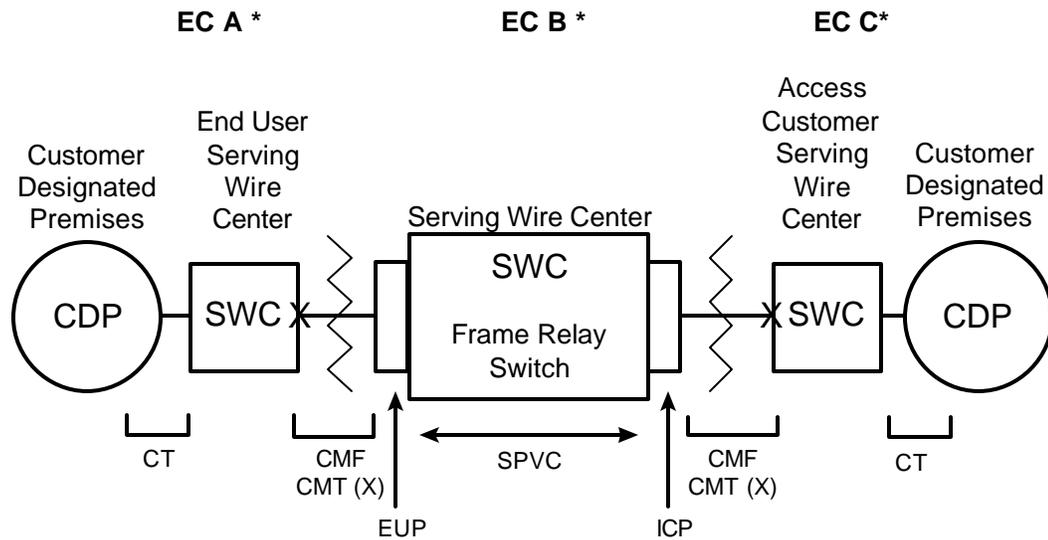
(C)

ACCESS SERVICE

- 16. Public Packet Data Network (Cont'd)
- 16.1 Frame Relay Access Service (Cont'd)
- 16.1.2 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 CMT = Channel Mileage Termination ICP = Inter-network Customer Port	EUP = End User Port SPVC = Standard Permanent Virtual Connection
EC "C"	CT = Channel Termination CMT = Channel Mileage Termination CMF = Channel Mileage Facility	

* If EC A or EC B is a non-TUECA company, the application of their charges will depend upon EC A or EC B's access tariff.

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(1) Frame Relay Access Connection

(C)

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.

(C)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(3) End User Port

(C)

An End User Port charge is applied as a discrete rate element in conjunction with jointly-provided Special Access Service. Refer to 7.8 and 7.9 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 either 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 as a discrete rate element in conjunction with jointly-provided Special Access Service. Refer to 7.9 preceding for additional applicable rates and charges.

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.

(C)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(A) Rate Categories (Cont'd)

(3) Permanent Virtual Connection (PVC)

(C)

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. 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 at speeds up to two times the CIR with no guarantee of completion. Attempted transmissions at above two times the CIR 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 establishes a communications path between two ports or between a port and a DSL Access Service Connection Point within the same Telephone Company frame relay network. The extended PVC establishes a communications path between two ports or between a port and a DSL Access Service Connection Point on two interconnected Telephone Company frame relay networks.

(C)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 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) Monthly Rates

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 17.4.1 following:

(a) Installation of Service

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.

(C)

(C)

ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(B) Types of Rates and Charges (Cont'd)

(2) Nonrecurring Charges (Cont'd)

(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.

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.

(C)

(C)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.2 Rate Regulations (Cont'd)

(B) Types of Rates and Charges (Cont'd)

(2) Nonrecurring Charges (Cont'd)

(c) Moves

(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 17.3 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) Minimum Period

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 2.4.1(F) preceding.

The minimum period for discounted FRAS is twelve months as set forth in 2.4.2 and 5.5.1 preceding.

(C)

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(C)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.3. Optional Rate Plans

(N)

A 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 Permanent Virtual Connections (PVC) are not eligible for a Term Discount. Under the 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 17.6.7.1(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.

(A) Term Discounts

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 17.6.7.1(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.

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 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.

(N)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.3. Optional Rate Plans

(N)

(A) Term Discounts (Cont'd)

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 (3) following will not apply.

(1) Upgrades in Term Discounts

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.

(2) Upgrades in Capacity

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.

(N)

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ACCESS SERVICE

16. Public Packet Data Network (Cont'd)

16.1 Frame Relay Access Service (Cont'd)

16.1.3. Optional Rate Plans

(A) Term Discounts (Cont'd)

(2) Upgrades in Capacity (Cont'd)

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.

(3) Discontinuance of Service

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 60-month service term. The discontinuance charge would be 0.15 times 27 months times the undiscounted monthly rates for that service.

(N)

(N)

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service

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 interconnect its CDPs to an ATM network located outside of the Telephone Company's serving territory.

16.2.2 Service Description

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 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 communication 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 Carriers Association, Inc. Tariff F.C.C. No. 4.

(N)

(N)

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Supervisor, Tariffs
805 Broadway, Vancouver, WA 98668

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.2 Service Description (Continued)

Rates and Charges for ATM-CRS are specified in Section 17.6.7.2, following. The application of rates and charges for ATM-CRS is described later in this section.

16.2.3 Obligation 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, Part 3, Clause 15 for 10Base-F, Clause 26 for 100Base-F and Clause 34 through 38 for 1000Base-X connections.

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 and/or ADSL Access Services provided under this tariff used in conjunction with ATM-CRS are as specified in Sections 7 and 8, preceding.

(N)

(N)

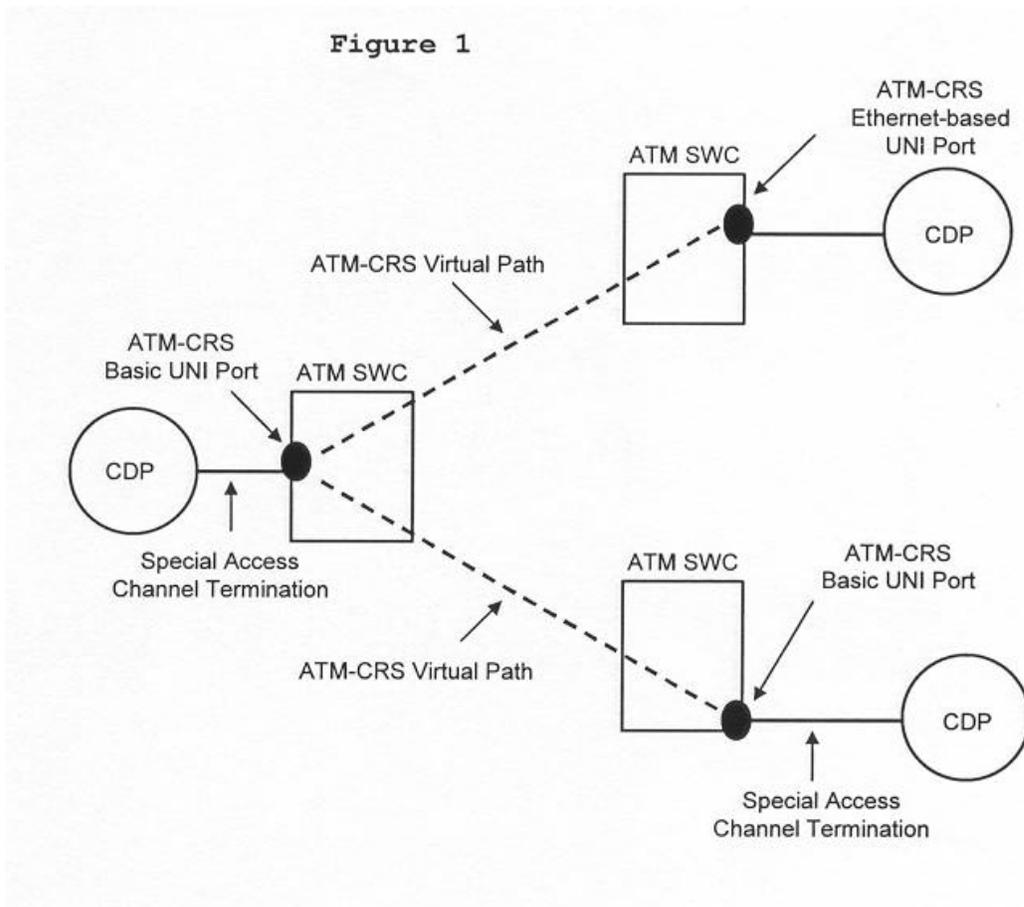
ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

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 the 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.



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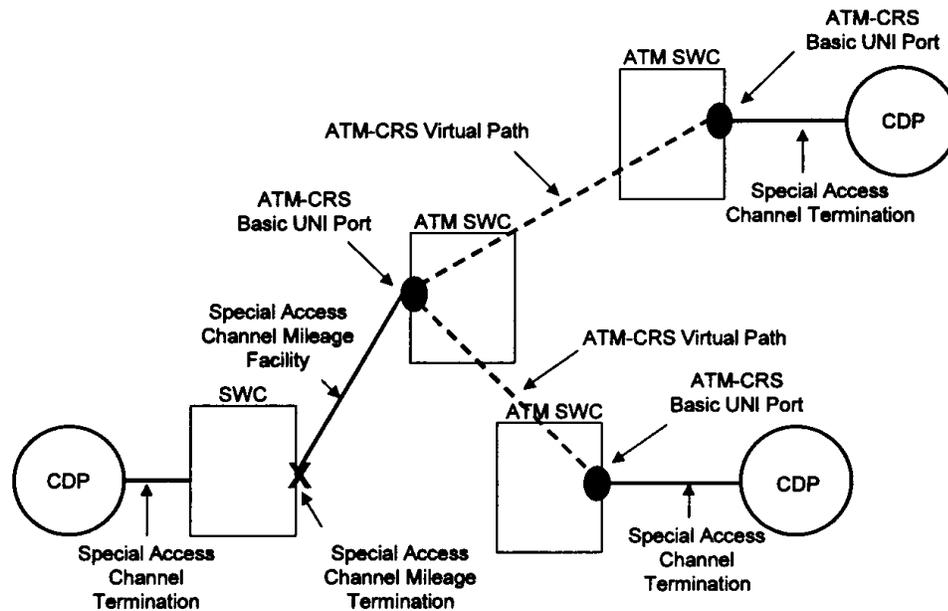
16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

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.

Figure 2



(N)

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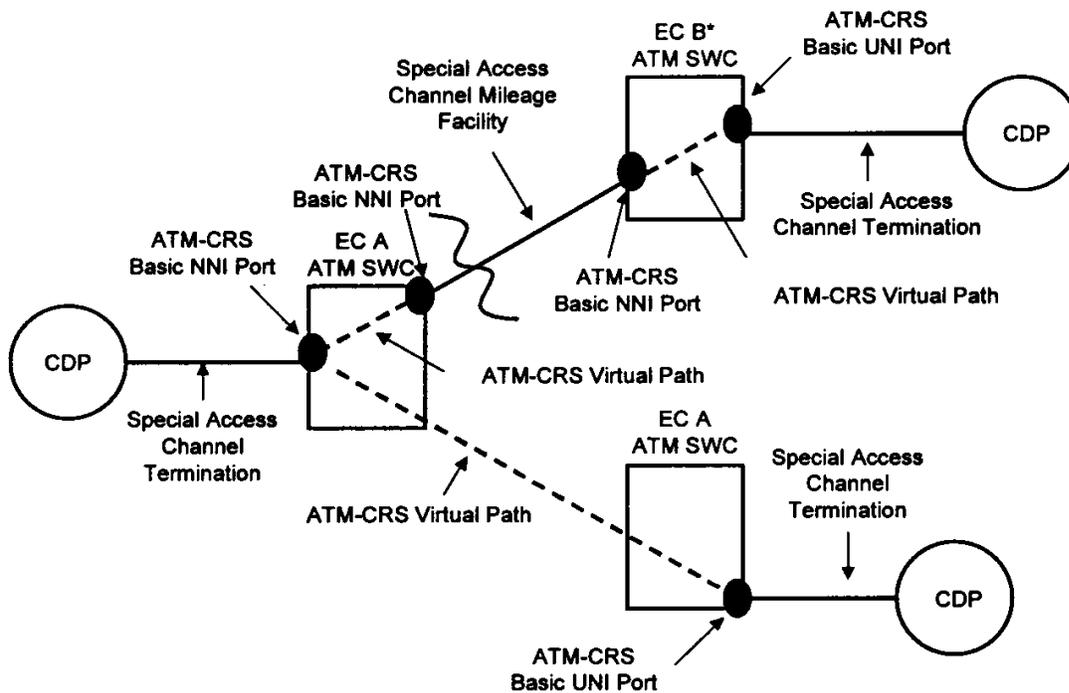
16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

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.

Figure 3



* IF EC B is a non-NECA company, the application of charges will depend on its access tariff.

(N)

(N)

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16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(A) Rate Categories

The various ATM-CRS service components are described below.

(1) ATM-CRS Ports

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 the Telephone Company's serving territory is provided using ATM-CRS Basic NNI ports and Telephone Company provided Special Access Services.

(a) Basic User Network Interface (UNI) Port

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 DS1 or DS3 High Capacity and/or 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.

(N)

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(N)

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(A) Rate Categories (Continued)

(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 NNI 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 Synchronous Optical Channel Special Access Services 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, 622.08 Mbps, and 2.4 Gbps.

(d) Ethernet-based Network to Network Interface (NNI) 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.

(N)

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(A) Rate Categories (Continued)

(2) ATM-CRS Virtual Paths

An ATM-CRS Virtual Path (VP) is a predefined, 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 1.5 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.

(C)

(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) Variable Bit Rate- real time (VBR-rt)

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).

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(A) Rate Categories (Continued)

(2) ATM-CRS Virtual Paths (Continued)

(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.

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 \$2,542.50 (\$5.00 fixed plus \$17.50 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 17.6.7.2 (3), following, do not apply to VCCs established by the customer.

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16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(A) Rate Categories (Continued)

(4) Optional Features and Functions

(a) DSL Access Service Connection

Where available, ATM-CRS UNI and/or NNI Ports may be equipped with the DSL Access Service Connection functions. This function provides for the interconnection of the ATM-CRS with Telephone Company provided ADSL Access Service as described in Section 8.1, preceding and Technical Reference ANSI T1.413-1998. This optional function allows the ATM-CRS customer to receive ADSL data traffic from and transmit ADSL data traffic to its end user customers using 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. 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.

A customer that requires a VBR-nrt traffic routing prioritization parameter may also order a DSL VCC between its CDP and the premises of its end user customer. Each DSL VCC is available with a maximum bandwidth capacity of 1.5 Mbps, however, the maximum speed to or from the ADSL Access Service customer will not exceed the maximum peak speeds for the services as specified in Section 8, preceding. Monthly and nonrecurring charges apply to each DSL VCC established by the Telephone Company. The DSL VCC charges apply in addition to the nonrecurring charge for equipping the ATM-CRS UNI or NNI Port with the DSL Access Service Connection function.

(C)

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(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:

(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.

(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 and service rearrangements. These charges are in addition to the Access Order Charge as specified in Section 17.3, following.

(a) Installation of Service

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 actual physical change to the service.

The VP nonrecurring charge will apply per VP to change bandwidth capacity and/or to change the traffic route prioritization parameter on an existing VP.

(N)

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(N)

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(B) Types of Rates and Charges

(2) Nonrecurring Charges (Continued)

(b) Service Rearrangements (Continued)

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

- Change of customer name
- Change of customer or customer's end user premises address when the change of address is not a result of the physical relocation of equipment
- Change in billing data (name, address, or contact name or telephone number),
- Change in 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 or more 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 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, preceding.

(N)

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16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(B) Types of Rates and Charges

(2) Nonrecurring Charges (Continued)

(c) Moves

(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) Moves To a Different Building Within the Same SWC

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.

(iii) Moves to a Different Building in a Different SWC

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 discontinued service.

(N)

ACCESS SERVICE

16. Public Packet Data Network (Continued)

16.2 Asynchronous Transfer Mode Cell Relay Access Service (Continued)

16.2.4 Rate Regulations (Continued)

(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
- One month for ATM-CRS Virtual Paths and Virtual Circuit Channels

(N)

(N)

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ACCESS SERVICE

17. Rates and Charges

17.1 Carrier Common Line Access Service

Regulations, Rates and Charges for Carrier Common Line Access Service are the same as those set forth in Section 3 of the NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. NO. 5.

17.2 End User Access Service

Rates and Regulations for End User Access Service are the same as those set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. NO. 5.

(D)

(D)

17.3 Access Ordering

Regulations concerning Access Ordering are set forth in Section 5. preceding.

	<u>USOC</u>	<u>Charge</u>	<u>Tariff Reference</u>
(A) <u>Access Order Charge</u> - Per order	AOC	\$75.00	5.4.1
(B) <u>Miscellaneous Service Order Charge</u> - Per occurrence	MSOC	\$50.00	5.4.2
(C) <u>Service Date Change Charge</u> - Per order, per occurrence	SDCC	\$50.00	5.4.3
(D) <u>Design Change Charge</u> - Per order, per occurrence	DCC	\$50.00	5.4.3

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17. Rates and Charges (Cont'd)

17.4 Switched Access Service

Regulations concerning Switched Access are set forth in Section 6 preceding.

17.4.1 Nonrecurring Charges

	<u>USOC</u>	<u>Nonrecurring Charge</u>	<u>Tariff Reference</u>
(A) <u>Local Transport Installation</u> Per Entrance Facility			6.4.1(B)(1)
- Voice Grade Two-Wire	NEFT2	\$56.00	
- Voice Grade Four-Wire	NEFT4	\$56.00	
- High Capacity DS1	NEFD1	\$400.00	
- High Capacity DS3	NEFD3	\$750.00	
 (B) <u>Trunk Activation</u> - Per 24 Trunks Activated or Fraction thereof on a Per Order basis	 NDTTA	 \$418.00	 6.4.1(B)(1)
 (C) <u>FGC and FGD Trunk Conversion</u> Multifrequency Address Signaling to SS7 Signaling or SS7 Signaling to Multifrequency Address Signaling - Per 24 Trunks Converted or Fraction thereof on a Per Order Basis	 SS7TC	 \$210.00	 6.4.1(B)(3)
			(D)
			(D)
 (E) <u>Common Channel Signaling</u> <u>Network Connection</u> - Per Signaling Entrance Facility			
DS0	NCSEF	\$56.00	
DS1	NC1EF	\$400.00	

ACCESS SERVICE

17. Rates and Charges (Cont'd)
 17.4 Switched Access Service
 17.4.2 Local Transport

(A) <u>Premium Access</u>	<u>USOC</u>	<u>Monthly Rate</u>	<u>Tariff Reference</u>
(1) <u>Entrance Facility</u> Per Termination			6.1.3(A)(1)
- Voice Grade Two-Wire	EFT2	\$20.00 (R)	
- Voice Grade Four-Wire	EFT4	\$30.00 (R)	
- High Capacity DS1	EFDS1	\$70.00 (R)	
- High Capacity DS3	EFDS3	\$700.00 (R)	
Per Mile, Over 3 Miles			
- High Capacity DS1		N/A	
- High Capacity DS3		N/A	
(2) <u>Direct Trunked Transport</u>			6.1.3(A)(2)
<u>Direct Trunked Facility</u> Per Mile			
- Voice Grade	DVCMF	\$0.05 (R)	
- High Capacity DS1	D1CMF	\$2.00 (R)	
- High Capacity DS3	D3CMF	\$20.00 (R)	
<u>Direct Trunked Termination</u> Per Termination			
- Voice Grade	DVCMT	\$1.25 (R)	
- High Capacity DS1	D1CMT	\$3.50 (R)	
- High Capacity DS3	D3CMT	\$50.00 (R)	

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17. Rates and Charges (Cont'd)
 17.4 Switched Access Service
 17.4.2 Local Transport (Cont'd)

(A) <u>Premium Access (Cont'd)</u>	<u>USOC</u>	<u>Monthly Rate</u>	<u>Tariff Reference</u>
(3) <u>Tandem Switched Transport</u> <u>Tandem Switched Facility</u> - Per Access Minute Per Mile	LTF	\$0.000017 (R)	6.1.3(A)(3)
<u>Tandem Switched Termination</u> - Per Access Minute Per Termination	LTT	\$0.000030 (R)	
<u>Tandem Switching</u> - Per Access Minute Per Tandem	LTTAN	\$0.010000 (R)	
(4) <u>Residual Interconnection Charge</u> Per Access Minute	LTRIC	N/A	6.1.3(A)(4)
(5) <u>Multiplexing</u> Per Arrangement			6.1.3(A)(5)
DS3 to DS1	MUX31	\$385.00 (R)	
DS1 to Voice	MUX10	\$299.50 (R)	
DS1 to DS0	MUX10	\$299.50 (R)	
(B) <u>Non-Premium Access</u>			
(1) <u>Residual Interconnection Charge</u> - Per Access Minute	LTRIC	N/A	6.1.3(A)(4)
(C) <u>Network Blocking (Applies to FGD only)</u> - Per Blocked Call	NBCPC	\$0.0076	6.8.6

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17. Rates and Charges (Cont'd)
 17.4 Switched Access Service
 17.4.2 Local Transport (Cont'd)

(D) Common Channel Signaling Network Connection

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Tariff Reference</u>
(1) <u>Signaling Network Access Link</u>			6.10.3
<u>Signaling Mileage Facility</u>			
Per Mile			
DS0	CCCMF	\$0.05 (R)	
DS1	C1CMF	\$2.00 (R)	
<u>Signaling Mileage Termination</u>			
Per Termination			
DS0	CCCMT	\$1.25 (R)	
DS1	C1CMT	\$3.50 (R)	
<u>Signaling Entrance Facility</u>			
Per Facility			
DS0	CCSEF	\$30.00 (R)	
DS1	C1SEF	\$70.00 (R)	
Per Mile, Over 3 Miles			
DS1	CSEFPM	N/A	
(2) <u>STP Port</u>			
Per Port	STPPT	\$900.00 (R)	
(E) <u>800 Data Base Access Service Queries</u>			6.10.3
Per Query			
Basic	800B	\$0.01000 (R)	
Vertical Feature	800V	\$0.01000 (R)	

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17. Rates and Charges (Cont'd)

17.4 Switched Access Service (Cont'd)

17.4.3 End Office

(A) <u>Local Switching</u>	<u>USOC</u>	<u>Monthly Rate</u>	<u>Tariff Reference</u>
(1) <u>Premium</u>			
Local Switching 1 - Feature Groups A & B (except: (1) Feature Group B utilized for the provision of MTS/WATS service and (2) Feature Groups A and B when utilized for the provision of terminating inward WATS and WATS-type services at an equal access WATS Serving Office.)			
- Per Access Minute	EOLS1	\$0.009278 (R)	6.1.3(B)(1)
Local Switching 2 - Feature Groups C & D (including: (1) Feature Group B when utilized for the provision of MTS/WATS service and (2) Feature Groups A and B when utilized for the provision of terminating inward WATS and WATS-type services at an equal access WATS Serving Office.)			
- Per Access Minute	EOLS2	\$0.004175 (R)	6.1.3(B)(1)
(2) <u>Non-Premium Per Access Minute</u>	EOLS1	\$0.004207	6.1.3(B)(1)
(B) <u>Information Surcharge</u>			
Premium Per 100 Access Minutes	EOINFO	\$0.007000 (R)	6.4.5
Non-Premium Per 100 Access Minutes	EOINFO	\$0.003150 (R)	

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.4 Switched Access Service (Cont'd)

17.4.4 <u>Assumed Minutes of Use</u>	<u>Assumed Minutes of Use per Month per Line or Trunk</u>	<u>Tariff Reference</u>
(A) Feature Group A, Two Way Calling (1902 Originating, 1694 Terminating)	3596	6.5.4
(B) Feature Group A, Originating Only	1902	6.5.4
(C) Feature Group A, Terminating Only	1694	6.5.4
(D) Feature Group B, Two Way Calling (4500 Originating, 4500 Terminating)	9000	6.6.4
(E) Feature Group B, Originating Only	4500	6.6.4
(F) Feature Group B, Terminating Only	4500	6.6.4

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service

Regulations concerning Special Access Service are set forth in Section 7 preceding.

17.5.1 Nonrecurring Charges

		<u>USOC</u>	<u>Nonrecurring Charge</u>	<u>Tariff Reference</u>		
(A)	<u>Metallic Service</u>					
(1)	Installation	NMTCT	\$56.00	7.4		
(B)	<u>Telegraph Grade Service</u>			7.5		
(1)	Installation					
	Two-Wire	NTCT2	\$56.00			
	Four-Wire	NTCT4	\$56.00			
(C)	<u>Voice Grade Service</u>			7.6		
(1)	Installation					
	Two-Wire	NVCT2	\$56.00			
	Four-Wire	NVCT4	\$56.00			
(2)	Conditioning	NVGCC	\$184.00			
(3)	Improved Return Loss					
	Two-Wire	NIRL2	\$37.00			
	Four-Wire	NIRL4	\$74.00			
(D)	<u>Program Audio Service</u>			7.7		
(1)	Installation					
	200 to 3500 Hz	NPECT	\$112.00		(I)	(C)
	100 to 8000 Hz	NPFCT	\$112.00		(I)	
	50 to 15000 Hz	NPJCT	\$112.00		(I)	(C)
(2)	Conditioning	NPAGC	\$73.00			
(3)	Stereo	NPASTE	\$110.00			

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17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.1 Nonrecurring Charges (Cont'd)

	<u>USOC</u>	<u>Nonrecurring Charge</u>	<u>Tariff Reference</u>	
(E) <u>Digital Data Service</u>			7.8	
(1) <u>Installation</u>				
2.4 kbps	NXACT	\$150.00		(T)
4.8 kbps	NXBCT	\$150.00		
9.6 kbps	NXGCT	\$150.00		
19.2 kbps	NXECT	\$150.00		
56.0 kbps	NXHCT	\$150.00		
64.0 kbps	NXJCT	\$150.00		(T)
(F) <u>High Capacity Service</u>			7.9	
(1) <u>Installation</u>				
DS1	NHCCT	\$400.00		(T)
DS3	NH3CT	\$750.00		(T)

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.2 <u>Surcharge for Special Access Service</u>	<u>USOC</u>	<u>Monthly Rate</u>	<u>Tariff Reference</u>	
<u>Special Access Surcharge</u>				
Per Voice Grade Equivalent	S25	\$25.00	7.3	(T)

Issued: June 17, 2002
 Effective: July 2, 2002

Eighth Revised Page 17-11
 Cancels Seventh Revised Page 17-11

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.3 Metallic Service

Regulations concerning Metallic Service are set forth in 7.4 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>
(A) <u>Channel Termination</u> Per Termination Two-Wire	MTCT2	\$42.36
(B) <u>Channel Mileage</u>		
(1) <u>Channel Mileage Facility</u> Per Mile	MTCMF	\$0.36
(2) <u>Channel Mileage Termination</u> Per Termination	MTCMT	\$8.98
(C) <u>Optional Features and Functions</u>		
(1) <u>Bridging</u>		
(a) Three Premises Bridging Per Port	M3PB	\$6.29
(b) Series Bridging Per Port	MSB	\$6.29

(M)
 |
 (M)

(M) Material moved to Page 17-22

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.4 Telegraph Grade Service

Regulations concerning Telegraph Grade Service are set forth in 7.5 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>		
Per Termination		
Two-Wire	TGCT2	\$20.00 (R)
Four-Wire	TGCT4	\$30.00 (R)
(B) <u>Channel Mileage</u>		
(1) <u>Channel Mileage Facility</u>		
Per Mile	TGCMF	\$0.05 (R)
(2) <u>Channel Mileage Termination</u>		
Per Termination	TGCMT	\$1.25 (R)
(C) <u>Optional Features and Functions</u>		
(1) <u>Telegraph Bridging</u>		
Per Port		
Two-Wire	TGB2W	\$6.29
Four-Wire	TGB4W	\$13.70

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service

Regulations concerning Voice Grade Service are set forth in 7.6 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>		
Per Termination		
Two-Wire	VGCT2	\$20.00 (R)
Four-Wire	VGCT4	\$30.00 (R)
(B) <u>Channel Mileage</u>		
(1) <u>Channel Mileage Facility</u>		
Per Mile	VGCMF	\$0.05 (R)
(2) <u>Channel Mileage Termination</u>		
Per Termination	VGCMT	\$1.25 (R)
(C) <u>Optional Features and Functions</u>		
(1) <u>Bridging</u>		
(a) Voice Bridging, Per Port		
Two-Wire	VGB2W	\$6.50
Four-Wire	VGB4W	\$6.50

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service (Cont'd)

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

	<u>USOC</u>	<u>Monthly Rate</u>	
(1) <u>Bridging</u> (Cont'd)			
(b) Data Bridging per port			
Two-Wire	VDB2W	\$6.50	(I)
Four-Wire	VDB4W	\$6.50	(R)
(c) Telemetry and Alarm Bridging			
Active Bridging Channel Connections			
Per channel connected			
Split Band	VTBSB	\$6.29	
Summation	VGTBS	\$6.29	
Passive Bridging Channel Connections			
Per channel connected	VTBPB	\$6.29	

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service (Cont'd)

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

	<u>USOC</u>	<u>Monthly Rate</u>	
(2) <u>Conditioning</u> Per Termination			
<u>C-Type</u>	VGCC	\$7.20	(R)
<u>Improved Attenuation Distortion</u>	VIAD	\$29.23	
<u>Improved Envelope Delay Distortion</u>	XDC	\$29.23	
<u>Data Capability</u>	VGDC	\$4.95	(R)
<u>Telephoto Capability</u>	VGTC	\$29.23	
<u>Sealing Current</u>	VGCS	\$29.23	
(3) <u>Improved Return Loss for Effective Two-Wire or Four-Wire Transmission</u> Per Termination			
Two-Wire	VIRL2	\$1.59	
Four-Wire	VIRL4	\$13.94	
(4) <u>Customer Specified Receive Level</u> Per Two-Wire Termination	VCRL2	None	

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.5 Voice Grade Service (Cont'd)

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

	<u>USOC</u>	<u>Monthly Rate</u>	
(5) <u>Multiplexing</u> Per arrangement Voice to Telegraph Grade	VGMPX	N/A	
(6) <u>Signaling Capability</u> Per termination	VGSC	\$12.95	(I)
(7) <u>Selective Signaling Arrangement</u> Per arrangement	VGSSA	N/A	
(8) <u>Transfer Arrangement</u> (key activated* or Dial-Up**)			
Per four port arrangement including control channel termination***	VGTA4	N/A	
Per five port arrangement including control channel termination***	VGTA5	N/A	
(9) <u>Public Packet Switching Network (PPSN) Interface Arrangement</u> Per arrangement	PPSN	N/A	

* The key activated control channel is rated as a Metallic Channel Termination and Channel Mileage, if applicable.

** The Dial-Up option requires the customer to purchase the Controller Arrangement from 13.3.8 preceding.

*** An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer designated premises. Additional channel mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.6 Program Audio Service

Regulations concerning Program Audio Service are set forth in 7.7 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>		<u>USOC</u>	<u>Daily Rate</u>	
(A) <u>Channel Termination</u> Per Termination						
200 to 3500 Hz	PECT2	\$25.00 (R)		DPET2	\$2.50	(R)
100 to 8000 Hz	PFCT2	\$30.00 (R)		DPFT2	\$3.00	(R)
50 to 15000 Hz	PJCT2	\$35.00 (R)		DPJT2	\$3.50	(R)
(B) <u>Channel Mileage</u>						
(1) <u>Channel Mileage Facility</u> Per Mile						
200 to 3500 Hz	PECMF	\$0.75 (I)		DPEMF	\$0.075	(I)
100 to 8000 Hz	PFCMF	\$1.50 (R)		DPFMF	\$0.150	(R)
50 to 15000 Hz	PJCMF	\$2.50 (R)		DPJMF	\$0.250	(R)
(2) <u>Channel Mileage Termination</u> Per Termination						
200 to 3500 Hz	PECMT	\$10.00 (R)		DPEMT	\$1.00	(R)
100 to 8000 Hz	PFCMT	\$15.00 (R)		DPFMT	\$1.50	(R)
50 to 15000 Hz	PJCMT	\$25.00 (R)		DPJMT	\$2.50	(R)

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service Cont'd

17.5.6 Program Audio Service (Cont'd)

(C) Optional Features and Functions

	<u>USOC</u>	<u>Monthly Rate</u>	<u>USOC</u>	<u>Daily Rate</u>	
(1) <u>Bridging, Distribution Amplifier</u> Per Port	PABDA	\$9.18	DPBDA	\$0.92	(T)
(2) <u>Gain Conditioning</u> Per Service	PAGC	\$9.18	DPAGC	\$0.92	(T)
(3) <u>Stereo</u> Per Service	PASTE	\$9.18	DPSTE	\$0.92	(T)

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.7 Digital Data Service

Regulations concerning Digital Data Service are set forth in 7.9 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>		
Per termination		
2.4 kbps	XACT4	\$40.00 (R)
4.8 kbps	XBCT4	\$40.00
9.6 kbps	XGCT4	\$40.00
19.2 kbps	XECT4	\$40.00
56.0 kbps	XHCT4	\$40.00
64.0 kbps	XJCT4	\$44.00 (R)
(B) <u>Channel Mileage</u>		
(1) <u>Channel Mileage Facility</u>		
Per Mile		
2.4 kbps	XACMF	\$0.05 (R)
4.8 kbps	XBCMF	\$0.05
9.6 kbps	XGCMF	\$0.05
19.2 kbps	XECMF	\$0.05
56.0 kbps	XHCMF	\$0.05
64.0 kbps	XJCMF	\$0.05 (R)
(2) <u>Channel Mileage Termination</u>		
Per Termination		
2.4 kbps	XACMT	\$1.25 (R)
4.8 kbps	XBCMT	\$1.25
9.6 kbps	XGCMT	\$1.25
19.2 kbps	XECMT	\$1.25
56.0 kbps	XHCMT	\$1.25
64.0 kbps	XJCMT	\$1.25 (R)

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.7 Digital Data Service (Cont'd)

	<u>USOC</u>	<u>Monthly Rate</u>	
(C) <u>Optional Features and Functions</u>			
(1) <u>Bridging</u> Per Port	DDB	\$7.85	(R)
(2) <u>Loop Transfer Arrangement</u> (Key activated** or Dial-Up***) Per four port arrangement*	DDLTA	N/A	
(3) <u>Public Packet Switching Network (PPSN)</u> <u>Interface Arrangement</u> Per 9.6 kbps arrangement	DPPSN	N/A	
Per 56.0 kbps arrangement		N/A	

* An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer designated premises. Additional Channel Mileage charges will also apply when the transfer arrangement is not located in the customer designated premises serving wire center.

** The key activated control channel is rated as a Metallic Channel Termination and Channel Mileage, if applicable.

*** The Dial-Up option requires the customer to purchase the Controller Arrangement from 13.3.4 preceding.

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17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service

Regulations concerning High Capacity Service are set forth in 7.9 preceding.

	<u>USOC</u>	<u>Monthly Rate</u>
(A) <u>Channel Termination</u>		
Per Termination		
DS1 1.544 Mbps	HCCT	\$70.00 (R)
DS3 44.736 Mbps	H3CT	\$700.00 (R)
Per Mile, Over 3 Miles		
DS1		N/A
DS3		N/A
(B) <u>Channel Mileage</u>		
(1) <u>Channel Mileage Facility</u>		
Per Mile		
64 kbps*	XJCMF	\$0.05 (R)
1.544 Mbps	HCCMF	\$2.00 (R)
44.736 Mbps	H3CMF	\$20.00 (R)
(2) <u>Channel Mileage Termination</u>		
Per Termination		
64 kbps*	XJCMT	\$1.25 (R)
1.544 Mbps	HCCMT	\$3.50 (R)
44.736 Mbps	H3CMT	\$50.00 (R)

* Applies to through connections of 2.4, 4.8, 9.6, 56.0 and 64 kbps.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

(C) Optional Features and Functions

	<u>USOC</u>	<u>Monthly Rate</u>
(1) <u>Multiplexing</u>		
Per Arrangement		
DS3 to DS1	HCMP3	\$385.00 (R)
DS1 to Voice *	HCM1V	\$299.50 (R)
DS1 to DS0	HCM10	\$299.50 (R)
DS0 to Subrates		
- Up to 20 2.4 kbps services	HMP24	
- Up to 10 4.8 kbps services	HMP48	
- Up to 5 9.6 kbps services	HMP96	
(2) <u>DSL Access Service Connection</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(a) Per 10BASE-T	\$300.00 (R)	\$170.00
(b) Per 100BASE-T	\$2,300.00 (R)	\$555.00

* Applies to through connections of 2.4, 4.8, 9.6, 56.0 and 64 kbps.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.5 Special Access Service (Cont'd)

17.5.8 High Capacity Service (Cont'd)

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

	<u>USOC</u>	<u>Monthly Rate</u>
(2) <u>Automatic Loop Transfer</u> Per arrangement*	HCALT	N/A
(3) <u>Transfer Arrangement</u> (key activated** or Dial-Up***) Per four port arrangement including control channel termination****	HCTA	N/A
(D) <u>Network Channel Terminating Equipment (NCTE)</u> Per termination#		
- 1.544 Mbps	NCTE	N/A
- Automatic Loop Transfer	NCALT	N/A
(E) <u>Clear Channel Capability</u> Per 1.544 Mbps transmission path	CCCC	N/A

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(F) <u>ADSL Access Service Connection</u> Per 1.544 Mbps		\$125.00 (R)	\$170.00
Per 44.736 Mbps		\$750.00 (R)	\$555.00
Per OC3		- See 17.6.9 (D) following	

(G) Shared SONET Ring Interoffice Transport
Per DS3 Channel Mileage Facility None

* An additional Channel Termination charge will apply whenever the spare line is provided as a leg to the customer designated premises.

** The key activated control channel is rated as a Metallic Channel Termination and Channel Mileage, if applicable.

*** The Dial-Up option requires the customer to purchase the Controller arrangement from 13.3.4 preceding.

**** An additional Channel Termination charge will apply whenever a spare channel is configured as a leg to the customer premises. Additional channel mileage charges will apply when the transfer arrangement is not located in the customer designated premises serving wire center.

NCTE will only be provided under tariff if it existed in the Telephone Company's inventory as of November 18, 1983.

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services

17.6.1 Additional Engineering

Regulations concerning Additional Engineering are set forth in Section 13.1 preceding.

	<u>USOC</u>	<u>Each Half Hour or Fraction Thereof</u>	<u>Tariff Reference</u>	
<u>Additional Engineering Periods</u>				
(A) <u>Basic Time</u> Regularly scheduled working hours, Per Engineer	AEHBD	\$42.69	13.1	(I)
(B) <u>Overtime</u> Outside of regularly scheduled working hours on a scheduled work day, Per Engineer	AEHOD	\$64.04	13.1	(I)
(C) <u>Premium Time</u> Outside of scheduled work day, Per Engineer	AEHPD	\$85.38	13.1	(I)

ACCESS SERVICE

17. Rates and Charges (Cont'd)
 17.6 Other Services (Cont'd)

17.6.2 Additional Labor

Regulations concerning Additional Labor are set forth in Section 13.2 preceding.

	<u>USOC</u>	<u>Each Half Hour or Fraction Thereof</u>	<u>Tariff Reference</u>	
<u>Additional Labor Periods</u>				
(A) <u>Installation or Repair</u>				
				(T)
<u>Overtime</u>				(I)
Per Technician	ALHOD	\$48.71	13.2	
<u>Premium Time</u>				
Outside of scheduled work day,				
Per Technican	ALHPD	\$64.95*	13.2	(I)
(B) <u>Standby</u>				
<u>Basic Time</u>				
Regularly scheduled working hours,				
Per Technican	ALTBT	\$32.47	13.2	(I)
<u>Overtime</u>				
Outside of regularly scheduled working				
hours on a scheduled work day,				
Per Technican	ALTOT	\$48.71*	13.2	(I)
<u>Premium Time</u>				
Outside of scheduled work day,				
Per Technican	ALTPT	\$64.95*	13.2	(I)

* A call out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.2 Additional Labor (Cont'd)

<u>Additional Labor Periods</u>	<u>USOC</u>	<u>Each Half Hour or Fraction Thereof</u>	<u>Tariff Reference</u>	
(C) <u>Testing and Maintenance with other Telephone Companies, or Other Labor</u>				
<u>Basic Time</u>				
Regularly scheduled working hours, Per Technican	ALKBT	\$32.47	13.2	(I)
<u>Overtime</u>				
Outside of regularly scheduled working hours on a scheduled work day, Per Technican	ALKOT	48.71*	13.2	(I)
<u>Premium Time</u>				
Outside of scheduled work day, Per Technican	ALKPT	\$84.95*	13.2	(I)

* A call out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.3 Miscellaneous Services

Regulations concerning Miscellaneous Services are set forth in Section 13.3 preceding.

(A) Additional Cooperative Acceptance Testing - Switched Access

See rates for Additional Labor set forth in 17.6.2(C), preceding.

(B) Additional Automatic Testing - Switched Access To First Point of Switching

<u>Additional Tests</u>	<u>USOC</u>	<u>Per Test Per Transmission Path</u>	<u>Tariff Reference</u>
Gain-Slope Tests	AATGS	\$2.89	13.3.1(A)(2)
C-Notched Noise Tests	AATCN	\$2.89	13.3.1(A)(2)
1004 Hz Loss**	AATHL	\$2.89	13.3.1(A)(2)
C-Message Noise**	AATCM	\$2.89	13.3.1(A)(2)
Balance (return loss)**	AATB	\$2.89	13.3.1(A)(2)

(C) Additional Manual Testing - Switched Access To First Point of Switching

Additional Tests: Gain-Slope, C-Notched Noise and any other agreed to tests.
 See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(D) Additional Cooperative Acceptance Testing - Special Access

See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(E) Additional Manual Testing - Special Access

See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(F) Maintenance of Service

See Rate for Additional Labor as set forth in 17.6.2(C), preceding.

(M)

(M)

* A call out of a Telephone Company employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four hours.

** 1004 Hz Loss, C-Message Noise and Balance are non-chargeable routine tests, however, they may be requested on an as needed or more than routine scheduled basis, in which case the charges herein apply.

(M) Material appearing on this page formerly appeared on Page 17-28.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.3 Miscellaneous Services (Cont'd)

(M)

(K)	<u>Blocking Service*</u>	<u>USOC</u>	Nonrecurring <u>Charge</u>	Tariff <u>Reference</u>
	Per Exchange Service Line or Trunk and/or Per Feature Group A Switched Access Line	BSSAL	N/A	13.8
(L)	<u>Billing Name and Address Service</u>	<u>USOC</u>	Nonrecurring <u>Charge</u>	Tariff <u>Reference</u>
	Per BNA Order	BNAOC	\$23.60	3.9.4(A)
	Per BNA Record	BNANC	\$0.05	13.9.4(A)
	Optional Magnetic Tape Charge			
	Per Magnetic Tape	BNAMT	\$40.00	13.9.4(B)
	Optional Format Programming Charge			
	Per each half hour, or fraction thereof	BNAFC		13.9.4(C)
(M)	<u>Originating Line Screening (OLS) Service</u>	<u>USOC</u>	Nonrecurring <u>Charge</u>	Tariff <u>Reference</u>
	Per Exchange Service Line	OLS	N/A	13.10
(N)	<u>Coin Supervision Additive Service</u>	<u>USOC</u>	Monthly <u>Rate</u>	Tariff <u>Reference</u>
	Per Exchange Service Line	CSAS	\$2.75	13.11
(O)	<u>Payphone-Specific Coding Digits Service</u>	<u>USOC</u>	Monthly <u>Rate</u>	Tariff <u>Reference</u>
	Per Pay Telephone Line		\$0.62	13.12

- * Blocking access to 900 Service is offered to all subscribers at no charge
(a) from November 1, 1993 through December 31, 1993 and
(b) at the time telephone service is established at a new number and for 60 days thereafter.

(M)

(M) Material appearing on this page formerly appeared on Page 17-30.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.3 Miscellaneous Services (Cont'd)

(P) Unattended Group Teleconferencing Service

USOC

Monthly
Rate

Tariff
Reference

Per Conference Port

\$50.00

13.13

(N)

(N)

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.4 Special Federal Government Access Services

Regulations concerning Special Federal Government Access Services are as set forth in Section 10, preceding.

(A)	<u>Voice Grade Secure Communications</u>	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	<u>Termination Charges</u>
	Type I, each T-3 Conditioning,		ICB rates and charges apply	
	Additional Conditioning, per service termination		ICB rates and charges apply	
	Type II, each G-1 Conditioning,		ICB rates and charges apply	
	Type III, each G-2 Conditioning,		ICB rates and charges apply	
	Additional Conditioning, per service termination		ICB rates and charges apply	
	Type IV, each G-3 Conditioning,		ICB rates and charges apply	
	Additional Conditioning, per service termination		ICB rates and charges apply	
(B)	<u>Wideband Digital Special Access Service</u>			
	<u>Wideband Secure Communications</u>	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	<u>Termination Charges</u>
	Type I, each		ICB rates and charges apply	
	Type II, each		ICB rates and charges apply	
	Type III, each		ICB rates and charges apply	

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.5 Special Facilities Routing of Access Services

Regulations concerning Special Facilities Routing of Access Services are as set forth in Section 11, preceding.

(A) Diversity

For each service provided in accordance with 11.1.1 preceding, the rates and charges will be developed on an individual case basis.

(B) Avoidance

For each service provided in accordance with 11.1.2 preceding, the rates and charges will be developed on an individual case basis.

(C) Diversity and Avoidance Combined

For each service provided in accordance with 11.1.1 and 11.1.2 preceding, combined, the rates and charges will be developed on an individual case basis.

(D) Cable-Only Facilities

For each service provided in accordance with 11.1.4 preceding, the rates and charges will be developed on an individual case basis.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.6 Specialized Service or Arrangements

Regulations concerning Specialized Service or Arrangements are as set forth in Section 12, preceding.

Rates and Charges for Specialized Service or Arrangements are developed and filed on an individual case basis.

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.7 Public Packet Data Network

17.6.7.1 Frame Relay Access Service

(C)

Regulations concerning Frame Relay Access Service are set forth in 16.1 preceding.

		<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
	<u>Connections</u>		
(A)	<u>Frame Relay Access Connection (FRAC)</u> (per FRAC)		
	56.0 kbps	\$135.00	\$240.00
	64.0 kbps	\$135.00	\$240.00
	1.544 Mbps	\$340.00	\$251.00
	44.736 Mbps	N/A	N/A
(B)	<u>Frame Relay Inter-network Connection (FRIC)</u> (per FRIC)		
	1.544 Mbps	\$340.00	\$251.00
	44.736 Mbps	N/A	N/A
(C)	<u>End User Port</u> (per port)		
	56.0 kbps	\$ 70.00	
	64.0 kbps	\$ 70.00	
	1.544 Mbps	\$163.00	
	44.736 Mbps	\$1,140.00	
(D)	<u>Inter-network Customer Port</u> (per port)		
	1.544 Mbps	\$163.00	
	44.736 Mbps	\$1,140.00	
(E)	<u>Term Discounts</u>		<u>Percentage</u>
	36 months		10%
	60 months		20%

(C)

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17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.7 Public Packet Data Network

17.6.7.1 Frame Relay Access Service (Cont'd)

(C)

(F) Permanent Virtual Connections (PVCs)

(1) Standard	Monthly Rate	(2) Extended	Monthly Rate
<u>CIR</u>	<u>Rate</u>	<u>CIR</u>	<u>Rate</u>
8 kbps	\$ 5.00	8 kbps	\$ 6.00
16 kbps	\$ 5.00	16 kbps	\$ 6.00
28 kbps	\$ 6.00	28 kbps	\$ 7.00
32 kbps	\$ 6.00	32 kbps	\$ 7.00
56 kbps	\$ 7.00	56 kbps	\$ 8.00
64 kbps	\$ 7.00	64 kbps	\$ 8.00
128 kbps	\$ 9.00	128 kbps	\$ 15.00
192 kbps	\$ 12.00	192 kbps	\$ 25.00
256 kbps	\$ 14.00	256 kbps	\$ 30.00
384 kbps	\$ 20.00	384 kbps	\$ 45.00
512 kbps	\$ 28.00	512 kbps	\$ 60.00
768 kbps	\$ 36.00	768 kbps	\$ 90.00
769 - 1152 kbps	\$ 38.00	769 - 1152 kbps	\$ 128.00
1153 - 1536 kbps	\$ 50.00	1153 - 1536 kbps	\$ 160.00
1537 - 4000 kbps	\$120.00	1537 - 4000 kbps	\$ 400.00
4001 -10000 kbps	\$250.00	4001 -10000 kbps	\$ 960.00
10001-15000 kbps	\$330.00	10001-15000 kbps	\$1365.00
15001-20000 kbps	\$410.00	15001-20000 kbps	\$1715.00
20001-25000 kbps	\$490.00	20001-25000 kbps	\$2015.00
25001-30000 kbps	\$570.00	25001-30000 kbps	\$2260.00
30001-35000 kbps	\$650.00	30001-35000 kbps	\$2455.00
35001-40000 kbps	\$730.00	35001-40000 kbps	\$2600.00
40001-45000 kbps	\$800.00	40001-45000 kbps	\$2685.00

Nonrecurring
Charge

(G) PVC Installation Charge

\$50.00

(H) PVC Rearrangement Charge

\$25.00

(C)

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ACCESS SERVICE

17. Rates and Charges (Continued)
 17.6 Other Services (Continued)
 17.6.7 Public Packet Data Network (Continued)

17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service

Regulations concerning Asynchronous Transfer Mode Cell Relay Access Service (ATM-CRS) are set forth in Section 16.2, preceding.

(1) Ports

(a) Per Basic UNI or NNI Port

<u>Port Speed</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
1.544 Mbps	\$360.00	\$500.00
44.736 Mbps	\$2,000.00	\$750.00
155.52 Mbps	\$3,100.00 (R)	\$1,200.00
622.08 Mbps	\$4,500.00 (R)	\$1,500.00

(b) Per Ethernet-based UNI or NNI Port

<u>Port Speed</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>	(T)
10 Mbps	\$555.00 (R)	\$1,364.00	
100 Mbps	\$4,500.00	\$1,414.00	
1 Gbps	N/A	N/A	

ACCESS SERVICE

(N)

17. Rates and Charges (Continued)

17.6 Other Services (Continued)

17.6.7 Public Packet Data Network (Continued)

17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service

(2) Virtual Paths

(a) Path charge, per Path

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$5.00	\$70.00

(b) Capacity charge, per Megabit of capacity, per path

<u>Path Size</u>	<u>Traffic Route Prioritization Parameter</u>			
	<u>CBR</u>	<u>VBR-rt</u>	<u>VBR-nrt</u>	<u>UBR</u>
1 to 50 Mbps	\$25.00	\$20.00	\$15.00	\$12.50
51 to 150 Mbps	\$22.50	\$17.50	\$12.50	\$10.00
Over 150 Mbps	\$17.50	\$12.50	\$10.00	\$7.50

(3) Virtual Circuit Channels

Per Virtual Circuit Channel

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$5.00	\$70.00

(N)

ACCESS SERVICE

17. Rates and Charges (Continued)

17.6 Other Services (Continued)

17.6.7 Public Packet Data Network (Continued)

17.6.7.2 Asynchronous Transfer Mode Cell Relay Access Service

(4) Optional Features and Functions

(a) DSL Access Service Connection

(i) Per Basic UNI or NNI Port Equipped

<u>Port Speed</u>	<u>Nonrecurring Charge</u>
1.544 Mbps	\$170.00
44.736 Mbps	\$555.00
155.52 Mbps	\$1,145.00
622.08 Mbps	\$1,300.00

(ii) Per Ethernet-based UNI or NNI Port Equipped

<u>Port Speed</u>	<u>Nonrecurring Charge</u>
10 Mbps	\$170.00
100 Mbps	\$555.00
1 Gbts	N/A

(iii) Per 1.544 Mbps DSL VCC

(C)

<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
\$30.00	\$70.00

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17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.8 Digital Subscriber Line Access Services

(A) Asymmetric Digital Subscriber Line Access Service

Regulations concerning Asymmetric Digital Subscriber Line Access Service are set forth in Section 8.1, preceding.

	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(1) <u>ADSL Line Charge</u>		
Per Voice - Data Option	\$31.00 (R)	\$95.00
Per Data - Only Option	48.95 (R)	251.00

(B) DSL Access Services Discount Pricing Arrangement

Regulations concerning the DSL Discount Pricing Arrangement Monthly Plan or Term Plan are set forth in Section 8.3, preceding.

	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(1) <u>Monthly Plan Line Charges</u>		
ADSL Line Charge		
Per Voice - Data Option	\$20.00 (R)	\$95.00
Per Data - Only Option	46.95 (R)	251.00

(2) Term Plan

(a) Term Plan Charges

Per serving wire center
 Included in a Term Plan

- Pricing Option 1	\$50.00 (R)	N/A
- Pricing Option 2	\$100.00 (R)	N/A
- Pricing Option 3	\$150.00 (R)	N/A

(b) Term Plan Line Charges

	<u>1 Year</u>	<u>3 Year</u>	<u>Nonrecurring Charge</u>
Pricing Option 1			
Voice - Data Option	\$18.00 (R)	\$15.00 (R)	\$95.00
Per Data - Only Option	\$41.95 (R)	\$39.95 (R)	\$251.00
Pricing Option 2			
Voice - Data Option	\$17.00 (R)	\$14.00 (R)	\$95.00
Per Data - Only Option	\$40.95 (R)	35.95 (R)	\$251.00
Pricing Option 3			
Voice - Data Option	\$16.00 (R)	\$13.00 (R)	\$95.00
Per Data - Only Option	\$38.95 (R)	\$34.95 (R)	\$251.00

(C) DSL Network Reconfiguration Charge

Regulations concerning DSL Network Reconfigurations are as set forth in Section 8.1.5(D), preceding.

	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
DSL Network Reconfiguration		
-Per DSL Access Service Line, Per Request	N/A	\$27.00

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ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.8 Digital Subscriber Line Access Services

(D) DSL Access Promotional Offerings

(N)

(1) Nonrecurring Charge Waiver

The Nonrecurring Charge for each new ADSL Access Line will be waived for each line order between February 2, 2001 and February 1, 2002, when the customer commits to retain the ADSL Access Line in service for a minimum period of twelve months following installation of service. If the ADSL Access Line is disconnected for any reason prior to the end of the twelve month minimum commitment period, the Company will bill the customer an amount equal to the waived Nonrecurring Charge.

(N)

ACCESS SERVICE

17. Rates and Charges (Cont'd)

17.6 Other Services (Cont'd)

17.6.9 Synchronous Optical Channel Service

Regulations concerning Synchronous Optical Channel Service are set forth in 7.2.1 preceding.

	<u>Monthly</u>	<u>3 Year(36 Month)</u>	<u>5 Year (60 Month)</u>
(A) Channel Termination Per Termination			
OC3/C3c	\$1,300.00 (R)	\$1,170.00 (R)	\$1,040.00 (R)
OC12	\$2,500.00 (R)	\$2,250.00 (R)	\$2,000.00 (R)
OC48	\$5,000.00 (R)	\$4,500.00 (R)	\$4,000.00 (R)
Per Mile, over 3 Miles OC3, OC12 and OC48	N/A	N/A	N/A
Channel Termination nonrecurring charge per termination is \$786.00.			
(B) Channel Mileage Facility Per Mile			
OC3/OC3c	\$100.00 (R)	\$90.00 (R)	\$80.00 (R)
OC12	\$200.00 (R)	\$180.00 (R)	\$160.00 (R)
OC48	\$300.00 (R)	\$270.00 (R)	\$240.00 (R)
(C) Channel Mileage Termination per Termination			
OC3/C3c	\$200.00 (R)	\$180.00 (R)	\$160.00 (R)
OC12	\$1,000.00 (R)	\$900.00 (R)	\$800.00 (R)
OC48	\$2,000.00 (R)	\$1,800.00 (R)	\$1,600.00 (R)

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17. Rates and Charges (Cont'd)
 17.6 Other Services (Cont'd)
 17.6.9 Synchronous Optical Channel Service (Cont'd)

(D) Optional Features and Functions

	<u>Monthly</u>	<u>3 Year (36 Month)</u>	<u>5 Year (60 Month)</u>
(1) Customer Node			
Per Node			
OC3/OC3c	\$500.00 (R)	\$450.00 (R)	\$400.00 (R)
OC12	\$1,800.00 (R)	\$1,620.00 (R)	\$1,440.00 (R)
OC48	\$6,000.00 (R)	\$5,400.00 (R)	\$4,800.00 (R)
Customer Node nonrecurring charge per node is \$786.00.			
(2) Customer Premise			
Port Per Port			
STS-1	\$75.00 (R)	\$67.50 (R)	\$60.00 (R)
DS3	\$75.00 (R)	\$67.50 (R)	\$60.00 (R)
OC3/OC3c	\$250.00 (R)	\$225.00 (R)	\$200.00 (R)
OC12	\$800.00 (R)	\$720.00 (R)	\$640.00 (R)
(3) Add/Drop Multiplexing			
Central Office Port			
Per Port			
DS1 (1.544 Mbps)	\$ 30.00 (R)	\$30.00(R)	\$30.00(R)
DS3 (44.73 Mbps)	\$50.00 (R)	\$50.00 (R)	\$50.00 (R)
OC3 (155.52 Mbps)	\$150.00 (R)	\$150.00 (R)	\$150.00 (R)
OC12 (622.08 Mbps)	\$700.00 (R)	\$700.00 (R)	\$700.00 (R)
(4) Shared SONET Ring			
Interoffice Transport			
per Channel Mileage			
Facility	None	None	None
(5) DSL Access Service			
Connection			
OC3/OC3c	\$1,850.00 (R)	\$1,850.00 (R)	\$1,850.00 (R)

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