4. SPECIAL ACCESS SERVICE

4.1 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.

The connections provided by Special Access Service are digital. Digital connections are differentiated by bit rate.

4.1.1 Channel Types

There are three 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,
- Speed (i.e., bit rate),

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.

4.1 <u>General</u> (Continued)

4.1.1 Channel Types (Continued)

Following is a brief description of each type of channel:

High Capacity - a channel for the transmission of DS1 (1.544 Mbps), DS3 (44.736 Mbps), OC3 (155.52 Mbps), OC12 (622.08 Mbps), OC48 (2488.28 Mbps) Services.

Detailed descriptions of each of the channel types are provided in 4.4 through 4.6 following.

The customer also has the option of ordering High Capacity facilities 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 4.6 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 4.2.1 following.

For example, a customer may order a 44.736 Mbps High Capacity channel from a customer designated premises to a Telephone Company hub for multiplexing to twenty-eight 1.544 Mbps channels. Optional features may be added to the 1.544 Mbps channels.

4.1 <u>General</u> (Continued)

4.1.2 <u>Service Descriptions</u>

For the purposes of ordering, there is one category of Special Access Service. This is:

Service Designator Codes

High Capacity

HC

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 6 following, optional features and functions are described in this section. Channel interfaces are described in 6.1 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 4.4 through 4.6 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 Central Office Hub where bridging or multiplexing functions are performed, between Facility Hubs, or between a Customer Premises Hub.

4.1 <u>General</u> (Continued)

4.1.2 <u>Service Descriptions</u> (Continued)

- (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 6.1 following.
- (B) Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. Only certain channel interfaces are compatible. These are set forth in 6.1 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 (E) 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 6.1 following with the optional feature or function listed down the left side and the technical specifications package listed across the top.

4.1 General (Continued)

4.1.2 Service Descriptions (Continued)

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

High Capacity GR-342-CORE GR-54-CORE GR-253-CORE

GR-253-CORE GR-1374-CORE ANSI T1.105 ANSI T1.102

4.1.3 Service Configurations

(A) Two-Point Service

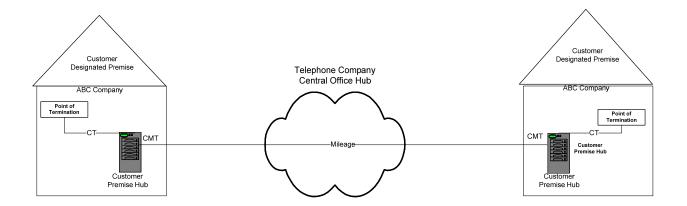
A two-point service connects two Customer Designated Premises or Facility Hubs through a Central Office Hub where multiplexing functions are performed.

Applicable rate elements are:

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

- 4.1 General (Continued)
 - 4.1.3 Service Configurations (Continued)
 - (A) <u>Two-Point Service</u> (Continued)

The following diagram depicts a two-point High Capacity service connecting two Customer Designated Premises (CDP) utilizing two Type 1 Customer Premise Hubs.



Applicable rate elements are:

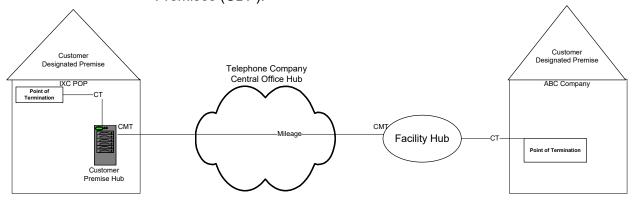
- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations plus
 - 1 section, Channel Mileage Facility per mile

4.1 General (Continued)

4.1.3 Service Configurations (Continued)

(A) <u>Two-Point Service</u> (Continued)

The following diagram depicts a two-point High Capacity service connecting a Type 1 IXC POP to a Type 2 Customer Designated Premises (CDP).



Applicable rate elements are:

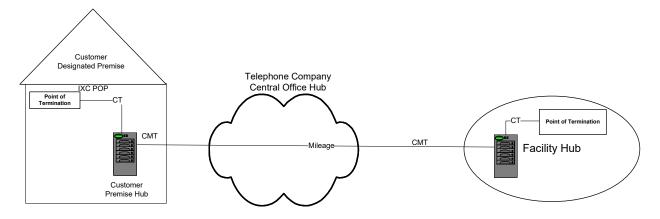
- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations plus
 - 1 section, Channel Mileage Facility per mile

4.1 General (Continued)

4.1.3 Service Configurations (Continued)

(A) <u>Two-Point Service</u> (Continued)

The following diagram depicts a two-point High Capacity service connecting a Type 1 Customer Designated Premises (CDP) to a Type 1 Facility Hub.

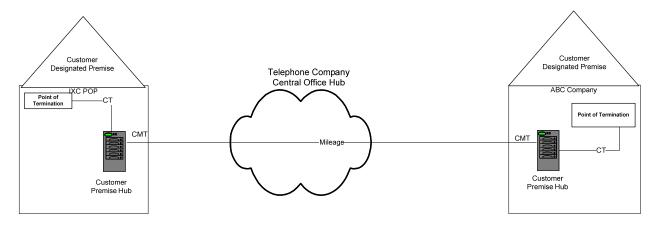


Applicable rate elements are:

- Channel Terminations (applicable one (1) per Termination Pt)
- Channel Mileage
 - 2 Channel Mileage Terminations plus
 - 1 section, Channel Mileage Facility per mile

- 4.1 General (Continued)
 - 4.1.3 Service Configurations (Continued)
 - (A) <u>Two-Point Service</u> (Continued)

The following diagram depicts a two-point High Capacity service connecting two Customer Designated Premises (CDP) from Type 1 IXC POP to Type 1 CDP.



Applicable rate elements are:

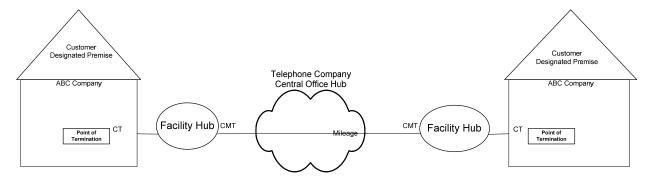
- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
 - 2 Channel Mileage Terminations plus
 - 1 section, Channel Mileage Facility per mile

4.1 General (Continued)

4.1.3 Service Configurations (Continued)

(A) Two-Point Service (Continued)

The following diagram depicts a two-point High Capacity service connecting two Customer Designated Premises (CDP) utilizing two Type 2 Customer Premise Hubs.

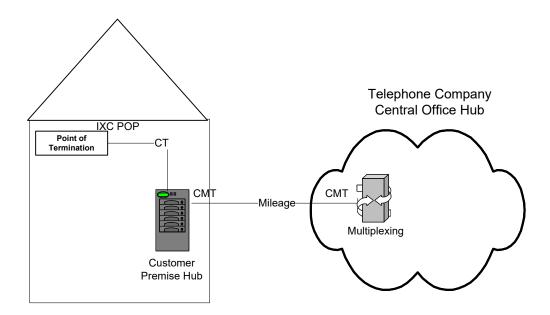


Applicable rate elements are:

- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
 2 Channel Mileage Terminations plus
 1 section, Channel Mileage Facility per mile

- 4.1 <u>General</u> (Continued)
 - 4.1.3 Service Configurations (Continued)
 - (A) <u>Two-Point Service</u> (Continued)

The following diagram depicts a High Capacity service Entrance Facility.



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

4.1 <u>General</u> (Continued)

4.1.4 Reserved For Future Use

4.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access Service be specially routed. The rates and charges for Special Facilities Routing (i.e., Avoidance, Diversity and Cable-Only) are provided on an Individual Case Basis.

4.1.6 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 catalog 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.

4.1 <u>General</u> (Continued)

4.1.7 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 High Capacity Services, acceptance tests will include tests applicable to the service as specified by the customer in the order for service.

4.1.8 Ordering Options and Conditions

Special Access Service is ordered under the Access Order provisions set forth in Section 3 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.).

4.2 Rate Regulations

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

4.2.1 Rate Categories

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

- Channel Terminations (described in 4.2.1(A) following)
- Channel Mileage (described in 4.2.1(B) following)
- Optional Features and Functions (described in 4.2.1(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 Facility Hub or Customer Premise Hub 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. One Channel Termination charge applies per Customer Designated Premises or Facility Hub at which the channel is terminated. This charge will apply even if the Customer Designated Premises and the Customer Premise Hub are collocated in the same building.

4.2 Rate Regulations (Continued)

4.2.1 Rate Categories (Continued)

(B) Channel Mileage

The Channel Mileage rate category recovers the costs associated with the end office equipment and the transmission facilities between the Central Office, Facility or Customer Premise Hub associated with two Customer Designated Premises. 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 Central Office and Facility or Customer Premise Hubs.

(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 hubs). The Channel Mileage Termination rate will apply at the hubs for each Customer Designated Premise and Telephone Company hub where the channel is terminated.

4.2 Rate Regulations (Continued)

4.2.1 Rate Categories (Continued)

(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

Descriptions for each of the available Optional Features and Functions are set forth in 4.4 through 4.6 following.

A Central Office Hub is a Telephone Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed are to connect two Customer Designated Premises. The multiplexing functions are to channelize digital facilities to individual services requiring a lower capacity or bandwidth.

4.2 Rate Regulations (Continued)

4.2.2 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) 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 9.2 following.

(1) Installation of Service

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

(2) <u>Installation of Optional Features and Functions</u>

When optional features and functions are installed coincident with the initial installation of service, no separate non-recurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in 9.2 following will apply per order.

4.2 Rate Regulations (Continued)

4.2.2 <u>Types of Rates and Charges</u> (Continued)

(C) Nonrecurring Charges (Continued)

(3) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service. Changes to pending orders are set forth in 3.4 preceding.

Changes in the physical location of the point of termination or Customer Designated Premises are moves as set forth in 4.2.3 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.

- 4.2 Rate Regulations (Continued)
 - 4.2.2 Types of Rates and Charges (Continued)
 - (C) Nonrecurring Charges (Continued)
 - (3) <u>Service Rearrangements</u> (Continued)

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

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change 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 9.2 following.

4.2 Rate Regulations (Continued)

4.2.2 <u>Types of Rates and Charges</u> (Continued)

(C) Nonrecurring Charges (Continued)

(3) <u>Service Rearrangements</u> (Continued)

- If the change involves the addition of an optional feature or function, the Access Order Charge as set forth in 9.2 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.

4.2.3 <u>Moves</u>

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

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

The charges for 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 customer will be charged Labor and other Charges incurred by the Telephone Company or other underlying carrier. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in 9.2 following.

4.2 Rate Regulations (Continued)

4.2.3 Moves (Continued)

(B) Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated 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.

4.2.4 Minimum Periods

The minimum service period for all services, except DS3 and OCN High Capacity Services, 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 DS3 and OCN High Capacity service is twelve months.

4.2 Rate Regulations (Continued)

4.2.5 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 Facility or Customer Premise Hubs associated with two Customer Designated Premises,
- a Facility or Customer Premise Hub associated with a customer designated premises and a Telephone Company Central Office Hub,
- two Telephone Company hubs

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.

4.2 Rate Regulations (Continued)

4.2.5 Mileage Measurement (Continued)

When hubs are involved, mileage is computed and rates applied separately for each section of the Channel Mileage.

4.2.6 Central Office Hubs

A customer has the option of ordering High Capacity services (i.e., DS1, DS3 or OCN) to a Central Office Hub for channelizing to individual services requiring lower capacity facilities.

- 4.2 Rate Regulations (Continued)
 - 4.2.6 Central Office Hubs (Continued)

Some of the types of multiplexing available include the following:

- from higher to lower bit rate

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.

The Telephone Company will commence billing the monthly rate for the service to the Central Office Hub on the date confirmed to the customer on the FOC for the Access Order. Individual channels utilizing these services may be installed coincident with the installation of the service to the Central Office 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 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.

4.2 Rate Regulations (Continued)

4.2.7 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 Central Office Hub where the Telephone Company performs multiplexing functions and the same customer then orders the derived channels as Special and Switched Access Services.

Except as noted above, the High Capacity facility will be ordered, provided and rates as Special Access Service (i.e., Channel Termination, Channel Mileage, as appropriate, Multiplexing, Customer Node, Customer Premises Port and Add/Drop Multiplexing). The nonrecurring charge that applies when the mixed use facility is installed will be the nonrecurring charge associated with the appropriate Special Access High Capacity 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, applicable switched and special access rates and charges will apply for the facility to the hub, as set forth preceding. The rates and charges that will apply to the mixed use portion from the hub to the customer designated premises will be dependent on the specific type of Access Service that is ordered by the customer for this segment. Rates and charges for optional features and functions associated with the service, if any, will apply for the appropriate channel type.

As each individual channel 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 TDS Metrocom, LLC Tariff FCC No.4, Section 15.3.2, will apply for each channel that is used to provide a Switched Access Service. Additionally, the Switched Access Service Entrance Facility, Direct Trunked Transport, and Multiplexing charges, if applicable, will be reduced by multiplying their respective rates by the ratio of derived Switched Access Service channels to the total number of Voice Grade channels that can be derived.

(Ņ)

(N)

(N)

| (N)

Effective: October 1, 2021

4.2 Rate Regulations (Continued)

4.2.7 Mixed Use Analog and Digital High Capacity Services (Continued)

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.

If the Special Access charges for the mixed use facility are subject to Rate Plan discounts (e.g., Term Discount) as set forth in 9.1.1 following, the Special Access charges will be reduced to reflect mixed use before the Rate Plan discounts are applied.

Switched Access Service rates and charges, as set forth in TDS Metrocom, LLC Tariff FCC No. 4, Section 15.3.2, will apply for each channel that is used to provide a Switched Access Service. The Switched Access Service Entrance Facility charge will be reduced by multiplying its rate by a rate reduction factor (i.e., the ratio of derived Switched Access Service channels to the total number of channels that can be derived). If the Telephone Company is providing Direct Trunked Transport, then the Direct Trunked Transport, Multiplexing, and Add/Drop Multiplexing charges will be reduced by multiplying their respective rates by the rate reduction factor.

The following table shows the total voice grade equivalents for each of the services that may be used for Mixed Use.

High Capacity	DS3	DS1	Voice Grade
	Quantities	Quantities	Equivalents
DS1	n/a	1	24
DS3	1	28	672

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.

(N)

(N)

Effective: October 1, 2021

4.2 Rate Regulations (Continued)

4.2.8 High Capacity Optional Rate Plan

The High Capacity Optional Rate Plan offers a Term Discount. The Term Discount plan applies to Special Access DS1, DS3, and OCN High Capacity Service Channel Termination, Channel Mileage Facility and Channel Mileage Termination monthly rates, as set forth following. The amount of the discount differs based on the length of the service commitment period selected by the customer. The Term Discounts for High Capacity Services are as set forth in Section 9.1.1., following.

The minimum service period on a monthly rate basis is one (1) month for DS1 service and twelve (12) months for DS3 and OCN Service.

(1) Term Discounts

DS1, DS3, and OCN High Capacity Special Access Service may be ordered at the customer's option on a monthly rate basis or for Term Discount periods of 36 months (3 years) or 60 months (5 years). The 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 Section 9.1.1. following, will apply.

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.

4.2 Rate Regulations (Continued)

4.2.8 High Capacity Optional Rate Plan (Continued)

(1) Term Discounts

To be included in a Term Discount plan, all eligible High Capacity rate elements must be ordered for the same commitment term (i.e., all 36 months or all 60 months) and with the same service date.

(a) 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 Channel Termination nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 month, or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all High Capacity Service that is upgraded.

(b) <u>Discontinuance of Service</u>

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 as provided for in Section 2.4.2 (C).

4.6 High Capacity Service

4.6.1 <u>Basic Channel Description</u>

A High Capacity channel is a channel for the transmission of DS1, DS3, or OCN Service or Circuit. 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.

High Capacity Services Channel Terminations are offered as Type 1 or Type 2 depending on the facilities used in provisioning circuit.

A Type 1 High Capacity Service is provisioned using wholly Company-owned facilities within a Market Area to provide the communications path between Central Office Hub and the Customer Designated Premise or Central Office Hub and the Facility Hub.

A Type 2 High Capacity Service is provisioned using unbundled network element facilities leased from a third party to provide the communications path between the Facility Hub and the Customer Designated Premise.

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 GR-342-CORE.

Rates and charges for Special Access High Capacity Service are as set forth in 9.1.1. following.

- 4.6 <u>High Capacity Service</u> (Continued)
 - 4.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 6.1.1 following. Compatible channel interfaces are set forth in 6.1.2 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)	
FCF-B	155 52 Mbps (OC2)	
FCF-B	155.52 Mbps (OC3)	
FCF-D	622.08 Mbps (OC12)	

4.6 <u>High Capacity Service</u> (Continued)

4.6.3 Optional Features and Functions

(A) Cross Connect

The function to provide the electrical or optical connection of two digital services of the same bit rate at a Central Office Hub or Facility Hub.

(B) OCN Protection

This service is provided with protection capable electronics in the Telephony Company Network. In the event of a primary electronic failure, the services would switch to the protection electronics.

1 + 1 Protection

This option provides two identical fiber pairs within the same cable sheath and path. If the working pair fails, traffic would switch to the protected (second) fiber pair. This option does not protect against a fiber cable cut.

The protected OC-3/OC3c, OC12/OC12c, and OC48/OC-48c services are offered with four fibers in the same cable sheath and the protection electronics are activated when this option is ordered. This allows customers to order protection providing their CPE can accommodate.

4.6 <u>High Capacity Service</u> (Continued)

4.6.3 Optional Features and Functions (Continued)

(C) Central Office Multiplexing

(1) <u>DS3 to DS1</u>

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

(2) OC3 to DS3

An arrangement that converts a 155.52 Mbps channel to 3 DS3 channels using Add/Drop Multiplexing

(3) OC12 to OC3

An arrangement that converts a 622.08 Mbps Channel to 4 OC3 channels using Add/Drop Multiplexing

(4) OC12 to DS3

An arrangement that converts a 622.08 Mbps Channel to 12 DS3 channels using Add/Drop Multiplexing

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

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

- 4.6 High Capacity Service (Continued)
 - 4.6.3 Optional Features and Functions (Continued)
 - (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 GR-54-CORE and Technical Reference GR-342-CORE.
 - (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 Central Office Hub and a Customer Designated Premises.
 - (3) The CCC optional feature must be ordered at the same time the High Capacity service is ordered. The charges for the CCC optional feature are as set forth in 4.2.2 (C) (3) preceding.

^{*} Available only on a DS1-to-Digital multiplexed configuration

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TDS Metrocom, LLC

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

4.7 <u>Individual Case Filings</u>

Certain services set forth in Special Access Service, Section 4. are provided on an Individual Case Basis. Rates and charges for Special Access Service provided on an Individual Case Basis.