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#### 7. Special Access Service

#### 7.1 General

Special Access Service provides a transmission path to connect customer designated premises<sup>1</sup>, directly, through a Company hub or hubs where bridging or multiplexing functions are performed, or to connect a customer designated premises and a WATS Serving Office. Special Access Service includes all exchange access not utilizing Company end office switches.

#### 7.1.1 Channel Types

There are six 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); and 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.

Following is a brief description of each type of channel:

Voice Grade (VG): a channel for the transmission of analog signals within an approximate bandwidth of 300 to 3000 Hz.

Program Audio (AP): 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.

Video (TV): a channel for the transmission of standard 525 line 60 field monochrome or National Television Systems Committee color video signal and one or two associated 5 or 15 kHz audio signals. The bandwidth is either 30 Hz to 4.5 Mhz or 30 Hz to 6.6 Mhz.

Digital Data (DA): a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6, or 56 kbps.

High Capacity (HC): a channel for the transmission of isochronous serial digital data at rates of 1.544, 3.152, 6.312, 44.726, or 274.176 Mbps.

Detailed descriptions of each of the channel types are provided in 7.4 through 7.8 following.

<sup>&</sup>lt;sup>1</sup> Company Centrex CO is considered to be a customer designated premises for purposes of this tariff.

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#### 7.1 General (Cont'd)

#### 7.1.1 Channel Types (Cont'd)

The customer also has the option of ordering Voice Grade and High Capacity facilities to Company hubs for multiplexing to individual channel 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 7.4 and 7.8 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.

#### 7.1.2 Service Descriptions

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 14, optional features and functions are described in this section. Channel interfaces are described in 14.2.

Customized technical specifications packages will be provided where technically feasible. If the 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 7.8 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 Company hub where bridging or multiplexing functions are performed, between hubs, or between a customer designated premises and a WATS Serving Office.

- (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 14.2.
- (B) Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in 14.2 in a combination format.

### 7. Special Access Service

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#### 7.1 General (Cont'd)

#### 7.1.2 Service Descriptions (Cont'd)

- (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 specification packages they are available. Such information is displayed in matrices set forth in 14.2 with the optional feature or function listed down the left side and the technical specifications package listed across the top.
- (E) All services will conform to the transmission specifications standards contained in this rate posting or in the following Technical References for each category of service:

Voice Grade TR-TSY-000335, PUB 41004, Table 4

Program Audio TR-NPL-000337 and associated Addendum

Video TR-NPL-000338

Digital Data TR-NPL-000341 and associated Addendum PUB 62310

High Capacity TR-INS-000342, PUB 62411

#### 7.1.3 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint 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 a WATS Serving Office (WSO).

Applicable rate elements are: Channel Termination; Channel Mileage (as applicable); and Optional Features and Functions (when applicable).

#### (B) Multipoint Service

Multipoint service connects three or more customer designated premises through one or more 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.

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#### 7.1 General (Cont'd)

#### 7.1.3 Service Configurations (Cont'd)

(B) Multipoint Service (Cont'd)

The channel between hubs (i.e., bridging locations) on a multipoint service is a midlink. 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 14.2 will be provided when technically possible. If the Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

When ordering, the customer will specify the desired bridging hub(s). NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF FCC 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; and Additional Optional Features and Functions (when applicable.

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

#### 7.1.4 Alternate Use

Alternate Use occurs when a service is arranged by the 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 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. 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 rates and charges for Special Facilities Routing (i.e., Avoidance, Diversity and Cable-Only) are set forth in Section 18.4.

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#### 7.1 General (Cont'd)

#### 7.1.6 Design Layout Report

At the request of the customer, the Company will provide to the customer the make-up of the facilities and services provided under this rate posting 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 issued or updated whenever these facilities are materially changed.

#### 7.1.7 Acceptance Testing

At no additional charge, the 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 operational feature.
- (B) For other analog services and for digital services, 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 is available at the customer's request. All test results will be made available to the customer upon request.

#### 7.2 Rate Regulations

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

#### 7.2.1 Rate Categories

There are four basic rate categories which apply to Special Access Service: Channel Termination (described in 7.2.1(A) following); Channel Mileage (described in 7.2.1(B) following); Port Charges (described in 7.2.1(C) following); and Optional Features and Functions (described in 7.2.1(D) following).

#### (A) Channel Termination

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. 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

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#### 7.2 Rate Regulations (Cont'd)

#### 7.2.1 Rate Categories (Cont'd)

(A) Channel Termination (Cont'd) serving wire center are collocated in a Company building.

For DS3 High Capacity Service, the Channel Termination rates are made up of the DS3 Facility rate and the DS3 Channel Interface Connection rate. The Facility rate is dependent upon the capacity orders (i.e., Facility of 3, 6 or 9) and may be applicable at each customer designated premises. The capacity ordered is the maximum number of DS3 services that can be terminated on a given Facility at the customer designated premises (e.g., a capacity of 3 can terminate 1, 2, or 3 DS3 Channel Interface Connections). The DS3 Facility may be customer provided.

One DS3 Channel Interface Connection rate applies per customer designated premises at which the channel is terminated for each DS3 channel that is ordered. This charge applies whether or not the DS3 Facility is customer provided. These charges will apply even if the customer designated premises and the serving wire center are collocated in a Company building.

#### (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 Company hub or between two Company hubs. 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 Company serving wire centers and/or hub(s).

#### (2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost of 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 Company hub where the channel is terminated. If the Channel Mileage is between Company bridging hubs, the Channel Mileage Termination rate will apply per 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. When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility

#### 7. Special Access Service

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#### 7.2 Rate Regulations (Cont'd)

- 7.2.1 Rate Categories (Cont'd)
  - (B) Channel Mileage (Cont'd)
    - (2) Channel Mileage Termination (Cont'd) rate nor the Channel Mileage Termination rate will apply.
  - (D) 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; and Transfer Arrangements. A hub is a Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed are to connect three or more customer designated premises in a multipoint arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth. NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF FCC No. 4 identifies serving wire centers, hub locations and the type of bridging or multiplexing functions available.

Descriptions for each of the available Optional Features and Functions are set forth in 7.4 through 7.8 following.

#### 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.

### 7. Special Access Service

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#### 7.2 Rate Regulations (Cont'd)

#### 7.2.2 Types of Rates and Charges (Cont'd)

#### (B) Daily Rates

Daily rates are recurring rates that apply to each 24-hour period or fraction thereof that a Program Audio or Video Special Access Service is provided for part-time use. For purposes of applying daily rates, the 24-hour period is not limited to a calendar day.

Part-time Video or Program Audio Service provided within a consecutive 30-day period will be charged the daily rate, not to exceed the monthly rate. For each day or partial day after a consecutive 30-day period of service, a charge equal to 1/30th of the monthly rate shall apply.

#### (C) 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 Rate Section 18.

#### (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 Rate Section 18 will apply per order.

#### (3) Service Rearrangements

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

Changes 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.

### 7. Special Access Service

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#### 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)

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 not change in facilities or arrangements, the change will be treated as an administrative change.

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 Rate Section 18.
- If the change involves the addition of an optional feature or function, 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 the Rate Sections, beginning in Section 16, following will apply.

### 7. Special Access Service

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#### 7.2 Rate Regulations (Cont'd)

#### **7.2.3** Moves

A move involves a change in the physical location of one of the following: The Point of Termination at the customer's premises; and 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 charge in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in Rate Section 18.

#### (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 Service Periods

The minimum service period for all services except part-time Video and Program Audio services and DS3 High Capacity 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 GCI's Interstate Special Access Terms and Conditions. The minimum service period for part-time Video and Program Audio services is continuous 24-hour period, not limited to a calendar day. The minimum service period for DS3 High Capacity service is twelve months.

#### 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 Company hub,
- two Company hubs
- or between the serving wire center associated with a customer designated premises and a WATS Serving Office.

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#### 7.2 Rate Regulations (Cont'd)

#### 7.2.5 Mileage Measurement (Cont'd)

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 FCC 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 Company is involved in the provision of service, billing will be accomplished as set forth in GCI's Interstate Special Access Terms and Conditions.

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 Company chooses to so route for test access purposes), rates will be applied only to the distance calculated between the serving wire centers associated with the customer designated premises.

#### 7.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services to a facility hub for channelizing to individual services requiring lower capacity facilities.

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 FCC No. 4 identifies serving wire centers, hub locations, hub level and the type of multiplexing functions available.

Some of the types of multiplexing available include the following: from higher to lower bit rate; from higher to lower bandwidth; and from high capacity to voice frequency channels.

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#### 7.2 Rate Regulations (Cont'd)

#### 7.2.6 Facility Hubs (Cont'd)

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 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.

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 duplexed. For example, a 6.312 Mbps High Capacity service is de-multiplexed to four DS1 channels and then one of the DS1 channels is further de-multiplexed to 24 individual Voice Grade channels.

When cascading multiplexing is performed, whether in the same or a different hub, a charge for the additional multiplexing unit also applies. When cascading multiplexing is performed at different hubbing location, Channel Mileage charges also apply between the hubs.

The Company will designate hubs for Program Audio and Video Services. Full-time or part-time service may be provided between customer designated premises or between a customer designated premises and a hub and billed accordingly at the monthly rates set forth in the Rate Sections, beginning in Section 16, following for a Channel Termination, Channel Mileage and Optional Feature and Functions as applicable.

When the service is ordered to a hub, the customer may order a full-time or part-time Video and program Audio services as needed between that hub and additional customer designated premises. The rate elements required to provide the part-time service will be billed at daily rates for the duration of the service requested.

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#### 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 Company hub where the 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 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 previously, 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 (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 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 provide. The applicable rates and charges will include a Channel Termination and Channel Mileage, if applicable. Rates and charges for optional features and functions associated with the service, if any, will apply for the appropriate channel type.

As each individual channel is activated for Switched Access Service, the High Capacity Special Access Channel Termination, Channel Mileage, and Multiplexing rates will be reduced accordingly.

Switched Access Service rates and charges, as set forth in Rate Section 18 of the GCI Communication Corp. Tariff F.C.C. No. 3, will apply for each channel of the standard use facility 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.

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

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#### 7.3 Surcharge for Special Access

#### 7.3.1 General

Special Access Services provided under this rate posting 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 Company upon receipt of the customer's written certification for the following Special Access Service terminations:
  - (1) an analog channel termination that is used for radio or television program transmission; or
  - (2) a termination used for TELEX service; or
  - (3) a termination that by the nature of its operating characteristics could not make use of Company common lines such as terminations which are restricted through hardware or software; or

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#### 7.3 Surcharge for Special Access (Cont'd)

#### 7.3.2 Application (Cont'd)

(B) (Cont'd)

- (4) 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 point of termination; or
- (5) a termination that, the customer certifies to the 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 Company with written exemption certification. The certification may be provided to the Company as follows:
- at the time the Special Access Service is ordered or installed;
- at such time as the service is 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.
- (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 exception 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 Company when an exempted Special Access Service is changed or terminated such that the exemption is no longer applicable.
- (D) The Company will work cooperatively with the customer to resolve any questions regarding the exemption certification. In addition, the Company may withhold exemptions of the service until the questions are resolved.

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#### 7.3 Surcharge for Special Access (Cont'd)

#### 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:

Special AccessVoice GradeMonthlyServiceEquivalentSurchargeChargeDS124X\$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.

- (B) The 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) The 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 Company will credit the customer's account, not to exceed ninety (90) days based on the effective date of the change as specified by the customer in the letter of certification.

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#### 7.4 Voice Grade Service

#### 7.4.1 Basic Channel Description

A Voice Grade channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Company hub or hubs, or between a customer designated premises and a WATS Serving Office.

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 Rate Section 18.

7.4.2 Technical Specifications Packages and Network Channel Interfaces Technical Specifications Packages are set forth in 14.2.1(A). Compatible network channel interfaces are set forth in 14.2.2(C)(1).

#### 7.4.3 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)
    The rates for these options are set forth in Rate Section 18.

#### (B) Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for these options are set forth in Rate Section 18.

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.

#### (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.

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#### 7.4 Voice Grade Service (Cont'd)

7.4.3 Optional Features and Functions (Cont'd)

#### (B) Conditioning (Cont'd)

#### (2) 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 Rate Section 18.

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

#### (C) 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.

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 rates for this option is set forth in Rate Section 18.

(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 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 rates for this option is set forth in Rate Section 18.

#### (D) 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 Rate Section 18.

The following network channel interfaces for Voice Grade service do not require signaling capability: AH, DA, DB, DD, DE, DS, NO, PR and TF.

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#### 7.4 Voice Grade Service (Cont'd)

#### 7.4.3 Optional Features and Functions (Cont'd)

(D) Signaling Capability (Cont'd)

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.

#### (E) 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 Rate Section 18 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.

#### 7.5 Program Audio Service

#### 7.5.1 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 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 set forth in Rate Section 18.

7.5.2 Technical Specifications Packages and Network Channel Interfaces Technical Specifications Packages are set forth in 14.2.1(B). Compatible network channel interfaces are set forth in 14.2.2(C)(2).

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#### 7.6 Video Service

#### 7.6.1 Basic Channel Description

A channel for the digital transmission of a standard North American Television Standards Committee (NTSC) video signal at a bit rate of 1.544 or 44.736 Mbps. The equipment necessary to provide Video Conferencing and Miscellaneous Video Distribution services on DS1/T1 facilities follow:

#### (A) DS1 Video Teleconferencing - Duplex

This service provisions a full duplex (transmit and receive) video teleconferencing link over DS1/T1 facilities. The codec for this service operates at line rate of 64 Kbps to E1 (2.048 Mbps).

Customer premise site A - video and audio (transmit and receive) signal from a standard (H.261) video teleconferencing unit is coupled via coax cable to multiple rate (nx64 Kbps) video codec (line side) is coupled via coax to a DSU/CSU which terminated the T1 line provided on local central office facilities.

Central office facilities - Standard repeated or repeaterless T1 facilities are used between central offices and customer premises to provide video signal transport. metallic or fiber optic span line equipment can be used to transport the video signal between central offices.

Customer premise site B - same equipment as site A.

#### (B) DS1 Video Teleconferencing - Simplex

This service provisions a simplex (transmit only) video teleconferencing link over DS1/T1 facilities. The codec for this service operates at line rates of 64 Kbps to E1 (2.048 Mbps).

Customer premise site A - video and audio (transmit only) signal from a standard (H.261) video teleconferencing unit is couples via coax cable to a multiple rate (nx64 Kbps) video codec unit (drop side). The video codec (line side) is coupled via coax to a DSU/CSU which terminates the T1 line provided on local central office facilities.

Central office facilities - same equipment as Duplex facilities above.

Customer Premise site B - video and audio (receive only) signal to a standard (H.261) video teleconferencing unit is coupled via coax cable to a multiple rate (nx64 Kbps) vid codec unit (drop side). The video codec (line side) is coupled via coax to DSU/CSU which terminates the line provided on local central office facilities.

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#### 7.6 Video Service (Cont'd)

#### 7.6.1 Basic Channel Description (Cont'd)

(C) DS1 Video Distribution - Simplex

This service provisions a simplex (transmit only) video distribution link (video jukebox, local hockey or basketball game, etc.) over DS1/T1 facilities. The codec for this service operates at a line rate of T1 (1.544 Mbps).

Customer premise site A - video and audio (transmit only) signal from a standard NTSC video source is couple via coax cable to a 1.544 Mbps video codec unit (drop side). The video codec (line side) is coupled via coax to a DSU/CSU which terminates the T1 line provided on local central office facilities.

Central office facilities - same equipment as Duplex facilities above.

Customer premise site B - video and audio (receive only) signal to a standard NTSC video receiving unit is coupled via coax cable to a 1.544 Mbps video codec unit (drop side). The video codec (line side) is coupled via coax to a DSU/CSU which terminates the T1 line provided on local central office facilities. Rates and charges for Special Access Video Service are set forth in the Rate Sections, beginning in Section 16, following.

#### 7.7 Digital Data Service

#### 7.7.1 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, or 56 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 Company through the Company's facilities the customer in the received bit stream. Digital Data channels are provided as either hubbed or nonhubbed services between customer designated premises and a Company hub or hubs. The hubs providing hubbed digital service are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., TARIFF FCC No. 4.

The customer may provide the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data channel at the customer premises.

The 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.

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#### 7.7 Digital Data Service (Cont'd)

#### 7.7.1 Basic Channel Description (Cont'd)

Rates and charges for Special Access Digital Data Service are set forth in Rate Section 18.

#### 7.7.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 14.2.1(D) following. compatible channel interfaces are set forth in 14.2.2(C)(4) following.

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

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

#### 7.7.3 Optional Features and Functions

The Optional Features and Functions described following is only available where Digital Data Service is provided via a hub.

#### **Central Office Bridging Capability**

The table set forth in 14.2.1(E) shows the technical specifications packages with which the optional feature and function is available.

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#### 7.8 High Capacity Service

#### 7.8.1 Basic Channel Description

A High Capacity channel is a channel for the transmission of nominal 64 Kbps<sup>1</sup> or 1.544, 6.132, 44.736, or 274.176 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Company hub or hubs.

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 the specifications contained in Technical Reference PUB 62411.

Rates and charges for Special Access High Capacity Service are set forth in Rate Section 18.

7.8.2 Technical Specifications Packages and Network Channel Interfaces
Technical Specifications Packages are set forth in 14.2.1(E) following. Compatible
channel interfaces are set forth in 14.2.2(C)(4) following. The following network
channel interfaces (NCIs) define the bit rates that are available for a High Capacity
channel:

<u>NCI</u>	Bit Rate
DU-15 <sup>2</sup>	1.544 Mbps (DS1)
DU-27	274.176 Mbps (DS4)
DU-31	3.152 Mbps (DS1C)
DU-44	44.736 Mbps (DS3)
DU-63	6.312 Mbps (DS2)

<sup>&</sup>lt;sup>1</sup>Available only as a channel of 1.544 Mbps facility to a 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.

<sup>&</sup>lt;sup>2</sup> A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps channel to a Company hub.

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#### 7.8 High Capacity Service (Cont'd)

#### 7.8.3 Optional Features and Functions

#### (A) Automatic Loop Transfer

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.

#### (B) Central Office Multiplexing

#### (1) DS4 to DS1

An arrangement that converts a 274.176 Mbps channel to 168 DS1 channels using digital time division multiplexing.

#### (2) DS3 to DS1

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

#### (3) DS2 to DS1

An arrangement that converts a 6.312 Mbps channel to four DS1 channels using digital time division multiplexing.

#### (4) DS1C to DS1

An arrangement that converts a 3.152 Mbps channel to two DS1 channels using digital time division multiplexing.

#### (5) 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.

#### (6) DS1 to DS0

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

#### (7) DS0 to Subrate

An arrangement that converts a 64.0 Kbps channel to subspeeds of up to twenty 2.4 Kbps, ten 4.8 Kbps, or five 9.6 Kbps channels using digital time division multiplexing.

The table set forth in 14.2.1(E) shows the technical specifications packages with which the optional features and functions are available.

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#### 7.9 Individual Case Filings

Certain services set forth in Special Access Service will be provided on an Individual Case Basis.

#### 7.10 Ultranet Service

#### 7.10.1 Description

Ultranet Service utilizes High Speed Ethernet over dedicated transport and Digital Subscriber Line ("DSL") technology over metallic local loop facilities to provide customers with high-speed data services that utilize the bandwidth of an existing Company provided analog telephone line (the "Ultranet Access Link") and packet based technology over dedicated transport facilities (the "Ultranet Backbone") for interconnection to networked internet protocol ("IP") data services.

Ultranet Service utilizes Company provided equipment located at an end customer's premise and at the Company Central Offices, to allow the Company to accept traffic from the Customer, and, subsequently, separate and send bidirectional voice and data transmissions to the appropriate voice and data networks.

Ultranet Backbone service aggregates the data transmissions of multiple Ultranet Customers onto high-speed facilities and switches for bi-directional transmission between an Ultranet Backbone host and Ultranet end customers designated premise.

The provisioning and continuing operation of Ultranet Services require certain physical arrangements of the Company's facilities, and is subject to the availability of such facilities. Data transmission and reception speeds described in this tariff for Ultranet Service are to be considered peak speeds. Actual speeds may be affected by loop length and other technical factors. Data transmission and reception speeds are therefore, not guaranteed or warranted. The wire center locations equipped with Ultranet Services are as set forth below.

#### 7.10.1.1 Ultranet Access

Applying DSL technology to local loop metallic facilities, Ultranet Access enables Business Customers to retain their analog telephone lines while providing data transmission and reception speeds up to 768 kbps.

#### 7.10.1.2 Ultranet Backbone Service

Ultranet Backbone Service connects multiple Ultranet locations, providing high-speed host and Local Area Network ("LAN") interconnections. Ultranet Backbone Service supports bi-directional peak speeds of 100 Mbps. Ultranet Backbone Service supports only internet protocol ("IP") data packets.

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#### 7.10 Ultranet Service (Cont'd)

#### 7.10.2 Service Elements

#### 7.10.2.1 Ultranet Serving Wire Centers

Service is available in the following wire centers:

North Wire Center Central Wire Center

#### 7.10.2.2 Ultranet Access Link

Company-provided local service analog business telephone lines serve as the access facilities for Ultranet Access from the Customers' designated location to their serving wire center.

#### 7.10.2.3 Ultranet Access Node

The Ultranet Access Node is the chassis and cards that communicate with the termination equipment and the Ultranet Feeder Node.

#### 7.10.2.4 Ultranet Termination Equipment

Provided by the Company, the Ultranet Termination Equipment provides connectivity from the end customer's premise over an Ultranet Access Link to the Ultranet Access Node.

#### 7.10.2.5 Ultranet VLAN Identifier

The Ultranet VLAN Identifier is assigned by the Company to provide a logical connection path between Ultranet Access and Ultranet Backbone services. Ultranet VLAN's use the 802.1q VLAN tagging standard and only exist within the Ultranet network.

#### 7.10.3 Ultranet Backbone

#### 7.10.3.1 Ultranet Feeder Node

An Ultranet Feeder node is a backbone node collocated with an Ultranet Access Node to provide connectivity between the Ultranet Concentrator node and an Ultranet Access Node.

#### 7.10.3.2 Ultranet Concentrator Node

The Ultranet Concentrator Node is located at the Company's South Anchorage Distribution Center ("SADC"). It acts as the central hub for Ultranet Feeder Nodes and provides a point of interconnection to the Customer's host.

#### 7.10.3.3 Ultranet Backbone Access Port

The Ultranet Backbone Access Port provides connectivity to the Customer's equipment at speeds of 100 Mbps at the Ultranet Concentrator Node. A minimum of one 100 Mbps Ultranet Backbone Access Port charge applies for each 400 Mbps of Ultranet Backbone Network bandwidth.

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#### 7.10 Ultranet Service (Cont'd)

#### 7.10.3 Ultranet Backbone (Cont'd)

#### 7.10.3.4 Ultranet VLAN Identifier

The Ultranet VLAN Identifier is assigned by the Company to provide a logical connection path between Ultranet Backbone customers. VLAN's use the 802.1q VLAN tagging standard and only exist within the Ultranet network.

#### 7.10.4 Ultranet Access Rate Elements

#### 7.10.4.1 Ultranet Access Charge

A non-recurring and monthly recurring charge apply for Ultranet Access for each Ultranet Access Link. These charges include the related use of all Company-provided equipment and the initial establishment of an Ultranet VLAN Identifier.

#### 7.10.4.2 Ultranet Access Link

The rates and charges for Company-provided, analog, local service business telephone lines used as access links for Ultranet Services are in addition to the rates and charges for the other elements of a Customer's Ultranet Service. Access Link charges will typically be paid for the Customers' end users.

#### 7.10.4.3 Ultranet VLAN Identifier Change Charge

A non-recurring charge will be applied for any change order for Ultranet VLAN Identifier.

#### 7.10.5 Ultranet Backbone Service Rate Elements

#### 7.10.5.1 Ultranet Feeder Node Charge

A non-recurring charge and a monthly recurring charge apply. The monthly recurring charge covers transport of data to the Ultranet Concentrator Node.

#### 7.10.5.2 Ultranet Backbone Access Port Charge

A non-recurring charge and a monthly recurring charge apply. The monthly recurring charge covers transport of data from the Ultranet Concentrator node to the Customer collocated equipment.

#### 7.10.5.3 Ultranet Backbone VLAN Change Charge

A non-recurring charge applies when an Ultranet Backbone Customer makes changes to VLAN's on the Ultranet Backbone.

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#### 7.10 Ultranet Service (Cont'd)

7.10.6 Term Commitment

Ultranet Service is subject to a minimum term commitment of twelve (12) months and a commitment to order a minimum of 100 Ultranet Access Links no later than nine months following the start of the term commitment. If a Customer terminates Ultranet Service prior to the end of the initial twelve month period, or does not meet the minimum of 100 Access Links requirement, Customer is subject to early termination charge, or shortfall charges, as the case may be.

Following the initial twelve month period, Ultranet Service is provided to Customers on a month-to-month basis.

7.10.7 Ultranet Service Availability and Restrictions Ultranet is available to Business Customers only.

Ultranet Service requires certain physical arrangements of the Company's facilities, and is subject to the availability of such facilities. Availability of Ultranet Services is restricted, by special plant configuration and material specifications, which may not be available at all Business Customer locations.