
LEASED CHANNELS

A. GENERAL

A leased channel is an electrical path for one of the following specific purpose between equipment furnished by the subscriber:

- Teletypewriter*, ** or other printer communication*, ***]
- Telewriter communication*. ***
- Facsimile communication*, ***
- Data communication*, *** (C)
- Loudspeaker paging and code calling communication*, **, ***
- Remote operation of a mobile radiotelephone system*, **, ***
- Remote metering*, *** supervisory control*, *** and alarm signaling*, *** purposes providing for]
the reading of meters and the control of switches in the remote operation of the subscriber's
apparatus or other units of his plant, such as the electrical power apparatus at the station of
an electric utility, the pumps and other equipment along an oil or gas pipe line, use in other
unattended industrial processes of the subscriber and use in remote operation of an alarm
signaling device or a relay.
- Voice channels for use with subscriber-provided intercommunicating equipment. **, *** (C)

* Throughout New York State, these services are not available to new customers. Existing customers may continue to keep these services. Changes and/or moves are permitted. Renewals are not permitted. In the wire centers and as of the effective dates listed in Part H of this Product Guide, these services are only available to existing customers as outlined in Part H.

** In the wire centers and as of the effective dates listed in Part H of this Product Guide, these services are no longer available to new customers and are only available to existing customers as outlined in Part H.

*** Effective February 13, 2026, moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.]
(N)
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LEASED CHANNELS

B. TERMS AND CONDITIONS

NOTE: When existing service provided under federal, interstate tariffs is ordered to be provided under this Section 10, a service charge as specified in Part B, Section 18 of the Product Guide, applies. In addition, other nonrecurring or service connection charges, as specified in Part B, Section 18 of this Product Guide, may apply for any work performed by the Company necessitated by the application for service.

Leased channels are furnished subject to the availability of facilities and the requirements of local exchange and toll service and are derived in such manner as the Company may elect.

Leased channels are not permitted to be connected with exchange or toll or private line services furnished by the Company except as otherwise provided in this Section.

Except as specifically provided herein the Company will furnish all channel apparatus and the subscriber will furnish all station apparatus and associated power facilities. All equipment used by subscribers in connection with leased channels is subject to the approval of the Company and must operate at a line signaling speed and with other line transmission characteristics within the range of those associated with the type of channel furnished.

Leased channels for remote metering*, ** supervisory control*, ** and alarm signaling*, ** purposes may terminate in station signaling equipment or supervisory control equipment furnished by the Company. Charges apply as specified in Paragraph C.4. following.

(C)

A leased channel, other than leased channels for facsimile* communication furnished at the rates and charges specified herein may have within one exchange a maximum of four terminations, provided standard transmission can be furnished without the use of special equipment.

* Throughout New York State, these services will not be provided to new customers. Existing customers may continue to keep these services. Changes and/or moves are permitted. Renewals are not permitted. In certain wire centers and as of the effective dates listed in Part H of this Product Guide, these services are only available to existing customers as outlined in Part H.

** Effective February 13, 2026, moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.

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LEASED CHANNELS

B. TERMS AND CONDITIONS (Continued)

The rates and charges specified herein for leased channels for facsimile communication are for two-point service. For multi-point service charges based on cost apply. The charges specified in Part B Section 18 apply for multi-point Data Schedule 4 leased channels. The charges specified in Part B Section 18 apply for multi-point 150 baud teletypewriter* channels and Data Schedule 3A leased channels. The subscriber may not create additional channels from the facilities furnished by the Company except as specifically provided for in Paragraphs B.1., B. 2., B. 3., B. 4. and B.5. following:

1. Channels for remote operation of a mobile radiotelephone system are similar in transmission characteristics to telephone grade channels and may be used by the subscriber to create other additional channels or to transmit more than one tone or signal alternately or simultaneously for remote control and indicating purposes in connection with such radiotelephone operation, to the extent permitted by the normal transmission characteristics of such channels. These channels and channels created from them by the subscriber are not permitted to be connected with exchange, toll or private line services or with private line channels, furnished by the Company, nor to be used for any other purposes for which services or channels are offered in this Product Guide.
2. Channels for remote metering*, **supervisory control*, ** and alarm signaling*, ** purposes may be used by the subscriber, to the extent permitted by the normal transmission characteristics of the grade of channel furnished, to create additional channels or transmit more than one tone or signal in sequence or simultaneously for such specific purposes. These channels and channels created from them by the subscriber are not permitted to be connected with exchange, toll or private line services or with private line channels, furnished by the Company, nor to be used for any other purposes for which services or channels are offered in this Product Guide. (C)
3. Line facilities furnished by the Company for private line telephone service, 45 Baud (60 wpm) teletypewriter*, ** service, or exchange telephone extension or tie line service may be used on an alternate use basis as channels for remote metering*, ** supervisory control* and alarm signaling*, ** purposes, and in connection with such alternate use, the subscriber may use such line facilities to create additional channels or transmit more than one tone or signal in sequence or simultaneously for the remote metering*, ** supervisory control*, ** and alarm signaling purposes*, **as provided in Paragraph B.2. preceding.] (C)] (C) (C)

Also, line facilities furnished by the Company for private line telephone service and extensions and tie lines may be used on an alternate use basis as channels for remote operation of a mobile radiotelephone system, and in connection with such alternate use, the subscriber may use such line facilities to create other additional channels or to transmit more than one tone or signal alternately or simultaneously, as provided in Paragraph B.1. preceding.

- * Throughout New York State, these services will not be provided to new customers. Existing customers may continue to keep these services. Changes and/or moves are permitted. Renewals are not permitted. In the wire centers and as of the effective dates listed in Part H of this Product Guide, these services are only available to existing customers as outlined in Part H.
- ** Effective February 13, 2026, moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.] (N)]

LEASED CHANNELS

B. TERMS AND CONDITIONS (Continued)

3. (Continued)

The subscriber may at will switch the line facilities from one type of use to the other (alternate) type of use by means of a key to be provided by the Company but only one such type of use can be made at one time.

Under no conditions may the alternate use channel be connected to private branch exchange or extension stations or to local or toll central office lines nor shall the subscriber's equipment be used in any manner which may falsely operate or injuriously affect the service or equipment furnished by the Company.

4. Teletypewriter grade channels are only intended for use in transmitting pulses or signals similar to those employed in teletypewriter operation. Telephone grade channels are only intended for use in transmitting pulses or signals within the voice frequency range, except that where short haul mileage applies between the terminals of a channel (or in the case of channels for the remote operation of a mobile radiotelephone system, where the normal transmission characteristics of such channels permit) they may also be used in transmitting pulses or signals similar to those employed in teletypewriter operation. Channels furnished under Paragraphs B.1., B.2., or B.3. above are permitted to be used only for the specific purposes stated therein.

5. Subscribers by use of their own equipment and to the extent permitted by the normal transmission characteristics of the grade of channel ordered may create additional channels by sub-dividing a two-point Data Schedule 4 Leased Channel for data transmission*. The Company makes no representation as to the suitability of the channels provided by it for such sub-division into additional channels by the subscriber.

(N)

Channels created by the subscriber may be connected to the Company provided private line teletypewriter service* and leased channels through connecting equipment furnished by the Company at charges specified in this Product Guide for the type of connecting equipment furnished. No representation is made that the Company provided equipment will operate satisfactorily with channels derived by the subscriber.

* Effective February 13, 2026, these services are no longer available to new customers. Moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.

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LEASED CHANNELS

B. TERMS AND CONDITIONS (Continued)

Where alternate use of channels is provided in accordance with this Product Guide, Part B, and one of the purposes for which the channel facilities are to be used requires a type of channel for which a higher rate applies than for the other purpose or purposes, the higher channel rate applies.

The magnitude and the character of the voltages and currents impressed on the leased channel by the subscriber-owned equipment and wiring and the operation and maintenance of such equipment and wiring shall be such as not to interfere with any of the services offered by the Company or interfere with others. The characteristics of the subscriber-owned apparatus shall be such that its connection to the leased channel does not interfere with service over other Company lines or channels or impair privacy of communication over such lines or channels. If, in the judgment of the Company, additional protective equipment is required to prevent such interference or impairment, such equipment shall be provided by the subscriber, or by the Company at the rates and charges specified in Part B, Section 8 of this Product Guide. Subscriber-owned equipment and the power supply to which it is connected shall be of such character and so located as to avoid injury to the public or Company employees, or damage to Company plant.

The Company may, upon notice to the subscriber, make such tests and inspections as may be necessary to determine that the above requirements are being complied with in the installation, operation and maintenance of subscriber-owned equipment. The Company may interrupt the channel at any time if, in its judgment, such action becomes necessary in order to protect the public, the Company's employees or its plant and services

The Company may test and adjust the leased channel as often as necessary at any time during regular business hours agreeable to the subscriber and the Company. No allowance for interruption of service is made for the time required to make such tests and adjustments. The subscriber shall provide his own means for ascertaining any inoperative condition of the leased channel when prompt detection of such condition is required for the subscriber's use.

The subscriber indemnifies and saves the Company harmless against claims for libel, slander or the infringement of copyright arising from or in connection with the material or subject matter transmitted over the leased channels; against claims for the infringement of patents arising from combining with, or using in connection with, leased channels of the Company apparatus and systems of the subscriber, and against all other claims arising out of any act or omission of the subscriber in connection with the leased channels provided by the Company.

The subscriber assumes all risk of errors, delays or accidents occurring in the operation of leased channels, and also for any interruptions due to failure of power supply

LEASED CHANNELS

B. TERMS AND CONDITIONS (Continued)

In the absence of gross negligence or willful misconduct, no liability shall attach to the Company for damages arising from the furnishing of a leased channel. If service is interrupted a pro rata allowance at the rates specified in Part B, Section 18 of this Product Guide for the leased channel shall be made for the time such interruption continues after notice and demand to the Company, provided such interruption is not caused by negligence or willful act of the subscriber or by failure of power supply or by testing and adjusting.

The Company may terminate leased channels, without notice, for any of the following reasons:

1. Upon objection to their continuance made by or on behalf of any governmental authority.
2. If, in the judgment of the Company, any use of the facilities by the subscriber tends to injuriously affect the efficiency of the Company's plant, property, or service.
3. Upon the use of any of the facilities for the purpose of performing any service which the Company or the Associated Companies may now or hereafter perform.

To protect the telecommunications network and the services furnished to the general public by the Company from harmful effects, the signal from the subscriber-provided terminal equipment or communications system connected to telephone grade (Schedule 2) leased channels must comply with the following minimum network protection criteria:

1. The power in the band from 3,995 Hertz to 4,005 Hertz shall be at least 18db below the power of the signal at the central office which in turn shall not exceed 12db below one milliwatt when averaged over any three second interval.
2. The power in the band from 4,000 Hertz to 10,000 Hertz shall not exceed 16db below one milliwatt.
3. The power in the band from 10,000 Hertz to 25,000 Hertz shall not exceed 24db below one milliwatt.
4. The power in the band from 25,000 Hertz to 40,000 Hertz shall not exceed 36db below one milliwatt.
5. The power in the band above 40,000 Hertz shall not exceed 50db below one milliwatt.

LEASED CHANNELS

C. LEASED CHANNELS FOR DATA TRANSMISSION

1. General

The following types of leased channels are furnished for the transmission and reception of data signals generated by subscriber- provided data processing equipment:

a. Data Schedule 4 Channels**, ***

(C)

Channels similar in transmission characteristics to telephone grade channels furnished for private line service. Channels furnished under this schedule may be used only in connection with terminal equipment. Terminal equipment is required to condition the signals generated by the subscriber-provided data processing equipment to signals suitable for transmission on a Data Schedule 4 channel, and to condition the signals received from such a channel to signals suitable for delivery to subscriber-provided data processing equipment. Such terminal equipment may be provided by the subscriber, or the Company at the rates and charges specified in Part B, Section 18 of this Product Guide.

b. Local Area Data Channels*, ***

(C)

Channels for data transmission over short distances between points in the same building area. See Part B, Section 5 for description, terms and conditions, and rates. Data sets for use on these channels may be furnished by the customer, or the company at rates and charges specified in Part B, Section 18 of this Product Guide.

* Throughout New York State, Local Area Data Channels are furnished on existing installations only. Additions and rearrangements are permitted provided facilities are available. Moves on the same premises are permitted. In the wire centers and as of the effective dates listed in Part H of this Product Guide, Local Area Data Channels are only available to existing customers as outlined in Part H.

** In the wire centers and as of the effective dates listed in Part H of this Product Guide, Data Schedule 4 Channels are no longer available to new customers and are only available to existing customers as outlined in Part H.

*** Effective February 13, 2026, these services are no longer available to new customers. Moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.

] (N)]

LEASED CHANNELS

C. LEASED CHANNELS FOR DATA TRANSMISSION (Continued)

2. Bridging Arrangements (Continued)

Bridging arrangements are furnished, subject to the availability of facilities, only in central offices listed below:

Albany:	Monticello	Newtown
State St.	Mount Kisco	North Jamaica
Amsterdam	Mount Vernon	Richmond Hill
Auburn	Newburgh	Staten Island
Batavia	Niagara Falls	North Staten Island
Bath	Newark	Nyack
Binghamton:	New York City:	Ogdensburg
Henry St.	Manhattan	Olean
Buffalo:	East 37th St.	Oneida
Franklin St.	(East 38th St.)	Oneonta
Catskill	West 50th St.	Oswego
Cobleskill	East 56th St.	Plattsburgh
Corning	West 73rd St.	Potsdam
Cortland	32 Ave. Americas	Poughkeepsie:
Deer Park	(Varick St.)	S. Hamilton St.
Dunkirk	1095 Ave.	Riverhead
East Aurora	Americas	Rome
East Fishkill	Broad St.	Saranac Lake
Elizabethtown	Bronx	Schenectady:
Elmira	East 150th St.	Clinton St.
Garden City	1775 Grand	Sodus
Geneva	Concourse	Syracuse:
Glens Falls	Kingsbridge Av.	State Street
Hamburg	Tratman Av.	Ticonderoga
Hempstead	Brooklyn	Tonawanda
Herkimer	Albemarle Rd.	Troy:
Hicksville	Bridge St.	Fourth St.
Hornell	Avenue Y	Utica:
Hudson	Queens	Genesee St.
Ithaca	Bayside	Waterloo
Kingston	Far Rockaway	Watertown
Lancaster	Flushing	Watkins Glen
Lockport	Idlewild	West Seneca
Malone	Jamaica	White Plains
Laurelton	Williamsville	

LEASED CHANNELS

C. LEASED CHANNELS FOR DATA TRANSMISSION (Continued)

2. Bridging Arrangements (Continued)

Each segment of a multi-point Data Schedule 4 leased channel is measured from the subscriber's location to the central office building where the bridging arrangement is located or between bridging arrangements in different central office buildings. When bridging arrangements are located in three central office buildings, each segment of the line between these central office terminal points is computed separately and the terminal points are joined in the manner which produces the lowest total rate.

Charges for channel terminals and connecting arrangements associated with Group Channel Service are applicable only at the terminations of the channels at the subscriber's locations.

Channel conditioning charges, where applicable, apply to each of the two terminals of each segment of a multi-point Data Schedule 4 leased channel, as defined above.

Hub facilities for providing multi-point service for Data Schedule 1, 2, 3 or 3A (up to 150 baud) channels.

3. Rate and Charges

For Rates and Charges, see Part B, Section 18 of this Product Guide.

LEASED CHANNELS

D. VOICE CHANNELS FOR USE WITH SUBSCRIBER-PROVIDED INTERCOMMUNICATING EQUIPMENT

Effective February 13, 2026, these services are no longer available to new customers. Moves, changes or modifications to these services will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.

] (C)]

1. Terms and Conditions

a. General

In addition to the general terms and conditions applicable to Leased Channels set forth in B. of this Section, the following terms and conditions apply to Voice Channels for use with Subscriber-Provided Intercommunicating Equipment.

b. Basis of Connection

- (1) These channels are furnished between different premises for the purpose of connecting subscriber-provided terminal equipment or communications systems to other subscriber-provided terminal equipment or communications systems, or to connect such equipment or systems to a PBX system, Centrex system, other switching equipment or station equipment furnished to the subscriber by the Company.
- (2) Subscriber-provided communications systems (channel facilities) may be extended from a termination of such facilities to a point on the premises of the subscriber using Company facilities (entrance facility), for connection with a PBX System, Centrex system other switching equipment or station equipment furnished to the subscriber by the Company or for connection with subscriber-provided terminal equipment or communications systems. However, an entrance facility between points within the same premises will not be provided by the Company for connection to subscriber provided equipment or communications systems.
- (3) These channels may be connected by the subscriber with other voice channels furnished to the same subscriber for use with subscriber-provided intercommunicating equipment, or with channels for remote operation of a mobile radio telephone system.
- (4) Connection of subscriber-provided equipment with Company channels as specified in Paragraphs D.1.b.(1), D.1.b. (2) and D.1.b.(3) above shall be made only through terminal equipment furnished by the Company at each terminating point of such channels.

LEASED CHANNELS

D. VOICE CHANNELS FOR USE WITH SUBSCRIBER-PROVIDED INTERCOMMUNICATING EQUIPMENT (Continued)

Effective February 13, 2026, this service is no longer available to new customers. Moves, changes or modifications to this service will no longer be supported. Service modifications for customers with existing contracts are subject to the terms of their contracts. For wire centers specific service withdrawal information, please refer to Part H, of this Product Guide.

] (C)]

1. Terms and Conditions (Continued)

b. Basis of Connection (Continued)

- (5) Except as provided in Paragraph B.1. of Product Guide, Part B, Section 1 these channels may not be directly or indirectly connected with exchange or private lines or leased channels of the Company other than those described in Paragraph D.1.b.(3) above nor with any subscriber-provided equipment to form a through connection with any channels provided by the subscriber or others.
- (6) These channels may be used on an alternate use basis as channels for remote operation of a mobile radiotelephone system.

2. Rates and Charges

For Rates and Charges, see Part B, Section 18 of this Product Guide.

LEASED CHANNELS

E. SUPERPATH^R 1.5 MEGABIT/ SEC SERVICE

1. General

Superpath^R 1.5 megabit/sec service consists of two-point digital channels which provides for simultaneous two-way transmission of serial, bipolar, return-to-zero, isochronous digital signals at a transmission speed of 1.544 megabits per second (mbps). Superpath 1.5 megabit/sec service may be used to connect two customer^{**} provided stations within a LATA, a customer-provided station to central office multiplexing equipment, or Network Reconfiguration Service^{***}, as described in Part B, Section 17 of this Product Guide. The terms and conditions, and rates specified herein are in addition to the applicable terms and conditions, and rates specified in this Product Guide. Superpath 1.5 megabit/sec service is furnished subject to availability of facilities.

(N)

2. Explanation of Terms

A BIT is the smallest unit of information in the binary system of notation.

A CHANNEL SERVICE UNIT is equipment at the customer's or user's premises to terminate each Superpath 1.5 megabit/sec service local distribution channel and perform such functions as proper termination of circuit facilities, regeneration of signals, recognition and correction of signal format errors and provide remote loop-back capability.

A CIRCUIT is an electrical path between customer premises by which a service is provided.

An INTEROFFICE CHANNEL is a path for digital transmission furnished between serving wire centers. An Interoffice Channel can only be provided where the originating and terminating serving wire centers, as well as all intermediate Company offices, are equipped with suitable digital facilities and equipment.

ISOCRONOUS - A characteristic of a periodic signal in which the time interval that separates any two corresponding significant instants or transitions of signal level is equal to the unit interval or to a multiple of the unit interval. No timing or clock lead is provided at the customer interface.

A LOCAL DISTRIBUTION OR ACCESS CHANNEL is a path for digital transmission furnished between the customer's premises or Inter-exchange Carrier's location and the Serving Wire Center. A Channel Service Unit is required at the customer's premises for Local Distribution Channel.

^{**} The term "customer" includes Interexchange Carriers or Interexchange Common Carriers.

^R Registered Service Mark of Verizon Communications Inc.

^{***} As of June 30, 2022, this service is not provided to new customers. Existing customers may retain the service; however, changes additions, and/or rearrangements are not permitted.

(N)

(N)

LEASED CHANNELS

E. SUPERPATH^R 1.5 MEGABIT/ SEC SERVICE (Continued)

2. Explanation of Terms (Continued)

A SERVICE is a combination of the channels that are furnished to a customer by the Company between locations.

1.544 CLEAR CHANNEL CAPABILITY is an optional feature that allows a customer to transport information signals through a Superpath 1.5 megabit/sec service line with no constraint on the quantity or sequence of bits at the line rate. This arrangement requires the customer signal at the channel interface to conform to Bipolar with Eight Zero Substitution (B8ZS), as described in ANSI T1.102.

CENTRAL OFFICE MULTIPLEXING is a Superpath 1.5 megabit/sec service optional feature which converts a 1.544 mbps transmission channel into 24 voice grade channels.

Multiplexing utilizes a 1.544 mbps transmission channel from a customer's premises or a previously installed higher capacity service to a designated central office multiplexor.

A SERVING WIRE CENTER is a Company location (Central Office) containing the equipment to provide telecommunications services in a specified serving area.

A STATION is a point on a customer's premises at which a Local Distribution Channel is terminated or an Intellipath II digital tie line termination.

3. Availability of Service

Superpath 1.5 megabit/sec service is provided on digital equipment and facilities selected by the Company and is provided from wire centers equipped to furnish such service. This service is subject to the availability of suitable facilities.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions

- a. Superpath 1.5 megabit/sec service is available on a two-point basis, or may be connected to a central office multiplexor or Network Reconfiguration Service*, as described in Part B, Section 17. (N)
- b. Superpath 1.5 megabit/sec service is furnished on a full-time basis.
- c. Superpath 1.5 megabit/sec service is designed to provide an average performance of at least 95% error-free transmission measured over a continuous 24 hour period, between the Company's interfaces using a Verizon New York Inc. test Channel Service Unit properly optioned at the time of the test. When this service is provided end-to-end over fiber optic facilities, the service shall be provided at an average performance of at least 98% error-free transmission measured over a continuous 24-hour period.
- d. A Channel Service Unit or the customer's functional equivalent unit is required at each terminal location on a Superpath 1.5 megabit/sec service digital facility. The unit performs such functions as: proper termination of the facility, regeneration, signal shaping and remote loop back. A unit provided by the customer must comply with the requirements of ANSI T1.403.
- e. The customer or user may not disconnect the Channel Service Unit or customer provided unit from the local distribution channel without prior written consent of the Company.
- f. Service is provided by means of the following service arrangements:
 - (1) Service between two customer stations located in the same Serving Wire Center, which consists of two Local Distribution Channels connected at the Serving Wire Center.
 - (2) Service between two customer stations located in different Serving Wire Centers which consists of two Local Distribution Channels connected to an Interoffice Channel at the Serving Wire Centers.
 - (3) Service between a customer station and a central office multiplexor, which consists of a Local Distribution Channel, an Interoffice Channel, if required, and a central office multiplexor.

* As of June 30, 2022, this service is not provided to new customers. Existing customers may retain the service; however, changes additions, and/or rearrangements are not permitted. (N)
(N)

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

f. Service is provided by means of the following service arrangements:

- (4) Service provided in conjunction with Network Reconfiguration Service*, which consists of Local Distribution Channels and/or Interoffice Channels, as appropriate. (N)
- (5) Superpath 1.5 megabit/sec service may be used for digital tie line type connections between Intellipath II digital switching systems or between customer provided PBXs and Intellipath II digital switching systems.

For digital tie lines connected over Superpath 1.5 megabit/sec service connecting Intellipath II systems and customer-provided PBX systems, the following mileage components will apply:

(i) Tie Lines between Intellipath II systems

- (1) Within the same central office a fixed Interoffice Channel Charge applies to each Superpath 1.5 megabit/sec service for each group or part of each group of 24 tie lines connecting Intellipath II systems. No per mile charges apply.
- (2) Between different central offices Superpath 1.5 megabit/sec service Interoffice Channel Charge for each group or part of each group of 24 tie lines connecting Intellipath II systems appropriate per mile charges apply.

(ii) Tie Lines between an Intellipath system and a CPE-PBX

- (1) Within the same central office, one Local Distribution Channel (LDC) plus Interoffice Channel Charges for each group or part of each group of 24 tie lines connecting systems (including appropriate per mile charges) apply.
- (6) An interconnector, as defined in Paragraph I.2.(b)1. of this Section may request connection of the interconnector's multiplexing node to Superpath 1.5 mbps service in a Company central office. When such connection is provided, the specified rates will apply for the service. A Service Access Charge and a Universal Service Element specified in Paragraph I.2.(c)1. of this Section will apply for the connection of Superpath 1.5 mbps Service to the interconnector multiplexing node location within the central office. Product Guide, Part B Section 18 rates will apply for all other Superpath 1.5 mbps service elements provided.

* As of June 30, 2022, this service is not provided to new customers. Existing customers may retain the service; however, changes additions, and/or rearrangements are not permitted. (N)
(N)

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

g. Customer Signal Constraints

- (1) Data Rate: 1.544 Mbps $\pm$ 32 ppm source
1.544 Mbps $\pm$ 130 ppm sink
- (2) No more than 15 consecutive zeros may be generated.
- (3) Average pulse density is 12 1/2 percent.
- (4) The customer's network interface equipment specifications must comply with ANSI T1.102 and ANSI T1.403.

h. Minimum Service Period

The minimum service period for Superpath 1.5 megabit/sec service, including options is 3 months.

i. Credit Allowances for Interruptions

A Credit Allowance will be made when an interruption occurs because of a failure of any component furnished under this Product Guide, Part B. An interruption is considered to have occurred when the customer reports a circuit or arrangement to be inoperative, releases it for testing and repair and the Company determines that it is inoperative.

A circuit is considered inoperative when the Company determines that continuity has been lost or that the service is operating at a performance level of 4320 or more seconds of transmission containing errors in a consecutive 24-hour period. When this service is provided end-to-end over fiber optic facilities, the service shall be considered inoperative if it is determined by the Company that continuity of its facilities has been lost or that the Company's service is operating at a performance level of 1728 or more seconds of transmission containing errors in a consecutive 24-hour period.

If the customer reports an interruption but declines to release the circuit for repair and continues to use it, the circuit is considered to be impaired--not inoperative--and no credit allowance is made. An interruption period starts when an interruption is reported to the Company and ends when the circuit or arrangement is operative.

If the customer elects to use another means of Company- provided services (e.g., Wide Area Telephone Service) during the period of interruption, the customer must pay the Product Guide, Part B rate for the alternative service used.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

i. Credit Allowances for Interruptions (Continued)

In certain instances, the customer may be asked to surrender a circuit for purposes other than maintenance, testing or activity relating to a service order. If the customer consents, a credit will be given. The credit will be determined in the same manner as an allowance for any circuit interruption.

For calculating credit allowances, every month is considered to have 30 days. A credit allowance is dependent upon the length of the interruption.

j. Credit Allowances - Calculation

The Credit Allowance for a circuit is calculated by adding the total monthly charges for the circuit.

A credit allowance is determined in the following manner:

When a Superpath 1.5 or 45 megabit/sec service circuit fails through the fault of the Company, the subscriber will qualify for a refund on the next month's bill. The refund will be a percentage of the monthly charge. The credits per interruption are as follows:

<u>Interruption Period</u>	<u>Applicable Credit</u>
Less than 30 minutes	None
Over 30 minutes up to but less than 2 hours	10% of Monthly Charge
2 hours up to and including 4 consecutive 24 hour periods	35% of Monthly Charge
Over 4 consecutive 24 hour periods	100% of Monthly Charge

In any month as a result of interruption, the total credit of interrupted service may not exceed 100% of the monthly charge.

In addition, there are specific credit allowance terms and conditions that only apply to a given type of circuit or arrangement. Those terms and conditions are specified in the section of the Product Guide, Part B which is applicable to the specific circuit or arrangement.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

k. Credit Allowances - Exceptions

No credit allowance will be made for the following:

- (1) Interruptions caused by the negligence of the customer, user or others.
- (2) Interruptions due to the failure of equipment or systems provided by others.
- (3) Interruptions during any period in which the Company is not afforded access to the premises where the circuit is terminated.
- (4) Interruptions during any period when the customer or user has released a circuit or arrangement to the Company for maintenance purposes, to make rearrangements, or for the implementation of a customer order for a change or rearrangement.
- (5) Interruptions which continue because of the failure of the customer to authorize replacement of any element of special construction. The period for which no credit allowance is made begins on the seventh day after the customer receives the Company's written notification of the need for such replacement and ends on the day after receipt of the customer's written authorization for such replacement.
- (6) Periods when the customer elects not to release the circuit or arrangement for testing and/or repair and continues to use it on an impaired basis.

I. Mileage Measurements

(1) Interoffice Channel

Mileage used to rate the Interoffice Channel is the direct airline distance measured between the Serving Wire Centers.

(2) Local Distribution Channel

Mileage used to rate the Local Distribution Channel is the direct airline distance measured between the customer's premises and the Serving Wire Centers.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

m. Special Construction and Special Development

- (1) A circuit or arrangement is offered subject to the availability of suitable components (i.e., service functions, channels, or features). When these items are not available, a customer may request that they be specially constructed or developed.
- (2) Special Construction of Plant - Where special construction of plant is necessary, the terms and conditions, and charges set forth in Part A, Section 1 of this Product Guide apply.

n. Diverse Routing

The Diverse Routing service function allows a customer with multiple Superpath 1.5 megabit/sec services between the same premises to designate that all such services or any subset of such services be physically provided over different routes. In the event suitable facilities are not available, special construction charges may be applicable.

- o. The Company shall not be responsible to the customer or user if changes in any of the facilities, operations or procedures of the Company utilized in the provision of Superpath 1.5 megabit/sec service render any facilities provided by a customer or user obsolete or require modification or alteration of such equipment or system or otherwise affect its use of performance.
- p. The Company undertakes to maintain and repair the facilities, which it furnishes hereunder. The customer or user may not rearrange, disconnect, remove or attempt to repair any equipment installed by the Company without prior written consent of the Company.

q. 1.544 Clear Channel Capability Option

1. This service option will be available only between locations which are equipped for sending and receiving signals with B8ZS coding/decoding capabilities.
2. Customer provided equipment must be capable of transmitting and decoding B8ZS signals as described in ANSI T1.102.
3. Rates and terms and conditions for Superpath 1.5 megabit/sec service continue to apply except for the customer signal constraints of no more than 15 consecutive zeros and at least three pulses in any 24 bit intervals.
4. The nonrecurring charge applies only when an existing circuit is arranged for Clear Channel Capability.
5. Customers must agree to out-of-service periods required to add this feature to an existing circuit. No credit allowance will be made for the periods of interruption.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

r. Central Office Multiplexer Option

- (1) The Central Office Multiplexer Option channelizes up to 24 voice grade channels. The voice grade channel services available for Central Office Multiplexing include:
 - (a) Voice grade circuits
 - (b) Analog data circuits
 - (c) PBX and Centrex off premises extensions
 - (d) Tie lines
 - (e) Interoffice portion of a foreign exchange line (FX)
 - (f) Feature Groups B, C, D - (See Sec. 6, Tariff PSC NY No. 11--COMMUNICATIONS)
 - (g) Switched Network Access Port Service (SNAPS)
- (2) Multiplexing equipment is available in designated central offices identified in the National Exchange Carrier Association Inc. Tariff F.C.C. No. 4.
- (3) The customer-provided multiplexer at the customer's premises must be compatible with the central office multiplexer and comply with the requirements of Telcordia Technical Reference GR-499. (T)
- (4) A subscriber to Central Office Multiplexing will be billed the following rates and charges: (T)
 - (a) Superpath 1.5 megabit/sec service rates and charges; and
 - (b) rates and charges for the appropriate voice grade channels between the central office multiplexer and the customer's premises; and
 - (c) Central Office Multiplexing arrangement rates and charges; and
 - (d) rates and charges for appropriate SNAPS ports.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

r. Central Office Multiplexer Option (Continued)
(4) (Continued)

In addition, the following non-recurring charges apply: the private line installation charge and, if appropriate the Channel Connection Charge (Part B, Section 5, of this Product Guide .) apply for each channel arranged for Central Office Multiplexing.

For SNAPS ports, Service Connection Charges apply, as specified in Part B, Section 18.

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(5) When Central Office Multiplexing is used in connection with the provision of Foreign Exchange Service, all terms and conditions, rates and charges associated with FX Service, as specified elsewhere in this Product Guide, Part B, apply; except that, Superpath 1.5 Mbps rates apply in lieu of the interoffice mileage charges specified in Section 18 of this Product Guide, Part B.

s. Waiver of Charges and Promotions

1. In order to promote the sale of Superpath 1.5 megabit/sec service, the Company reserves the right to waive recurring monthly rates, or nonrecurring charges, or both, or to offer promotional rates for recurring monthly rates or nonrecurring charges or both, at any time.
2. Waivers and promotional rates in effect are listed in Part B, Section 18.
3. Each waiver or promotion will not extend beyond 90 days.
4. Appropriate notification of the waiver or promotion will be made to affected customers.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans

- a. A customer with one or more than one Superpath 1.5 megabit/sec channel service has the option of requesting, at any time, a Service Discount Plan for some or all of its Superpath 1.5 service. The locations involved may be two customer designated premises or a customer designated premises and a Company location where multiplexing functions are performed.
- b. Service Discount Plans are available for a commitment period of 3, 5, 7 or 10 years. The length of the period is selected by the customer and a termination liability applies during the selected commitment period except as specified in Paragraphs E. 6. d., e. and f. following. The discount plans apply only to the monthly rate for local distribution and interoffice channels and the central office multiplexer option. Nonrecurring charges and optional feature monthly rates are not included.

A Service Discount Plan provides that the applicable monthly rates, set forth in Part B, Section 18 of this Product Guide, are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the selected commitment period as follows:

<u>Commitment Period</u>	<u>Discount Percentage</u>
3 Years	15%
5 Years	25%
7 Years	30%
10 Years	35%

The discount percentage is applied to the currently effective local distribution and interoffice channels and the central office multiplexer option monthly rates. Such rates may change during the commitment period, thereby causing an increase or decrease in the rates applicable to the customer.

The discount percentage will not be subject to Company initiated decrease during the commitment period. However, if the Company initiates an increase in the discount percentage during that period, the increased discount percentage will be used to determine the rates applicable to the customer.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

c. Termination Liability

A termination liability applies during the selected commitment period. If service is disconnected in whole or in part prior to the end of the selected commitment period, the customer is liable for a termination liability charge, except as provided in Paragraphs E.5.d., e. and f. following.

The termination liability charge applies to each service channel disconnected or, in the case of cancellation of a Service Discount Plan, to each service which has been included in the cancelled Service Discount Plan. When calculating termination liability charges the Company will apply the option which provides the customer with the lowest termination liability charge.

Option 1

The termination liability charge is 50% of the applicable monthly rates for the selected commitment period applied as follows:

- For disconnects on or prior to the end of the minimum period (Para E.4.h. preceding) and prior to the end of the selected commitment period, the termination liability charge applies to each month and fraction thereof remaining between the disconnect date and the end of the selected commitment period.
- For disconnects after the end of the minimum period but prior to the end of the selected commitment period and for cancellations prior to the end of the selected commitment period, the termination liability charge applies to each month and fraction thereof in the balance of the selected commitment period.
- The termination liability charge applies in addition to applicable minimum period termination charges.

Option 2

- For disconnects on or prior to the end of the minimum period and prior to the end of the selected commitment period, the termination liability charge will be the difference between the full monthly rates and the discounted monthly rates for the period the service has been in effect.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

c. Termination Liability (Continued)
Option 2 (Continued)

- For disconnects after the minimum period but prior to the end of the selected commitment period and for cancellations of the Service Discount Plan prior to the end of the selected commitment period, one of the following formulae applies:
 - a. When there is no Service Discount Plan period less than the actual time the service has been in effect, the termination liability charge will be the difference between the full monthly rates and the discounted monthly rates for the period the service has been in effect; or
 - b. Where there is a Service Discount Plan period less than the actual time the service has been in effect, the termination liability charge will be the difference between the monthly rates for the highest Service Discount Plan period that could have been satisfied prior to disconnection of the service or cancellation of the plan and the monthly rates for the selected commitment period multiplied by the actual number of months the service has been in effect. For example, if a customer has a 5-year plan and disconnects a DS-1 service after forty months, the highest Service Discount Plan period that could have been satisfied is three years. To determine the termination liability charge, the monthly rate for the 5-year plan is subtracted from the monthly rate for the 3-year plan and the difference is multiplied by the forty months that the service had been in effect.

d. Termination Liability for Service Discount Plans

Moves

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if a service subject to the Service Discount Plan is ordered moved to a new location.

Replacements

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if, upon cancellation of a service provided under a Service Discount Plan, the customer places a new or existing service of the same type not covered under a discount plan under the terms and conditions applicable to the disconnected service. The orders to disconnect the service and substitute the existing non-discounted service under the Service Discount Plan must be placed with the Company within sixty (60) days of each other.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

d. Termination Liability for Service Discount Plans (Continued)

Rearrangements

Service rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements or a change in the physical location of the point of termination at a customer designated premises. Changes which result in a change in the minimum period requirements are treated as discontinuances of existing service and installations of new service. Changes in the physical location of the point of termination at a customer designated premises are treated as moves.

The charge to the customer for the service rearrangement is dependent on whether the change is administrative only in nature or involves actual physical change to the service.

Administrative changes, as follow, will be made without charge(s) to the customer:

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

Upgrades

A customer subscribing to a Service Discount Plan will not incur a termination liability charge when the replacement service bit rate capacity is equivalent to or greater than the bit rate capacity of the service being discontinued and the Service Discount Plan for the replacement service is renegotiated for the same or a longer commitment period.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

e. Additions of Service

When a customer with an existing Service Discount Plan wishes to increase the number of service channels of the same type between the same two locations, the following options are available:

(1) Subscribe to the additional services under non-discounted rates.

(2) Subscribe to the additional services under a separate Service Discount Plan.

f. Extension of Commitment Period

A customer may, at any time prior to the expiration of the selected commitment period for an existing Service Discount Plan, change to a Service Discount Plan with a longer commitment period at the new discount percentage. No termination liability charges will apply for any services extended to a longer commitment period.

g. Rate Terms and Conditions

Where the Service Discount Plan is requested to be provided coincident with the connection of new service, it will be effective with the establishment of service.

Where the Service Discount Plan is requested to be provided on existing services, the effective date will be the first bill date following the receipt of the service order requesting the discount.

At the end of its selected commitment period, the customer will have the option of subscribing to any Service Discount Plan in effect or of retaining the service under the standard rates in effect at that time. If the customer does not execute a new Service Discount Plan prior to the expiration of the commitment period, standard rates will be applied upon expiration of the commitment period.

6. Rates and Charges

For rates and charges see Part B, Section 18 of this Product Guide.

LEASED CHANNELS

E. SUPERPATH 1.5 MEGABIT/ SEC SERVICE (Continued)

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6. Superpath 1.5 Megabit/Sec Service – DS0 to DS1 Upgrade

Except as otherwise provided in this Section E.6., the regulations applicable to Superpath 1.5 Megabit/Sec Service, set forth in E.1 – E.5. of this Section, apply to customers who upgrade an existing DS0 Service to Superpath 1.5 Megabit/Sec Service DS1 Service.

- (a) DS0 to DS1 Upgrade is only available to existing Verizon customers who upgrade an existing DS0 service to a Superpath 1.5 Megabit/Sec Service.
- (b) Customers who purchase this service cannot make moves, additions or changes subsequent to the initial upgrade.
- (c) The 1.544 Mbps channel is provided as a single, flat rated, transport service. Central Office (CO) multiplexing and alternate serving wire center options are not available for Superpath 1.5Megabit/Sec Service - DS0 to DS1 upgrades.
- (d) Superpath 1.5 Megabit/Sec Service - DS0 to DS1 Upgrade is provided on a two-point basis only, between a customer-designated premises and customer-designated premises.
- (e) Customer premises to wire center is not permitted. DS1 as a derived circuit from a higher level facility is not permitted.
- (f) At least one end point of the DS1 Upgrade must be the same as one of the existing end points of the disconnected DS0 service.
- (g) Superpath 1.5 Megabit/Sec Service – DS0 to DS1 Upgrade requires a one for one replacement; one DS0 for one DS1 and disconnect of the DS0 service.
- (h) The minimum service period is one month.
- (i) Service Charges apply as specified elsewhere in this Product Guide.
- (j) The service is provided as a flat rate transport from premises to premises that includes a channel termination at each designated customer location, for a total of two channel terminations, as well as any IOF which may apply.

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7. Rates and Charges

(M)

For rates and charges see Part B, Section 18 of this Product Guide.

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LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE

1. General

Superpath* Optical 45 megabit/sec service is a leased channel for high capacity transport of digital electrical signals. This service uses lightwave facilities that provide high quality transmission performance and circuit reliability.

2. Description

Superpath Optical 45 megabit/sec service consists of a two-point digital channel which provides for simultaneous two-way transmission of serial, bipolar (B3ZS), return-to-zero, isochronous digital electrical signals at a transmission rate of 44.736 megabits per second (mbps) $\pm$ 20 ppm. This service may be used to connect two customer locations served from wire centers within a Local Access Transport Area (LATA) or connect a customer location to central office multiplexing equipment.

3. Explanation of Terms

- a. See Paragraph E.2. of this Section.
- b. Central Office Multiplexing is a Superpath Optical 45 megabit/sec service optional feature which converts a 44.736 mbps digital transmission channel into 28 1.544 megabit per second channels. Optical Transport Interconnection Service using this central office multiplexing cannot convert to exchange services utilizing 1.544 mbps interfaces, such as Intellipath II service tie lines.

Multiplexing utilizes a 45 mbps transmission channel from a customer's premises or a previously installed higher capacity service to a designated central office multiplexor.

4. Terms and Conditions

- a. Superpath Optical 45 megabit/sec service is available on a two-point basis or may be connected to a central office multiplexor.
- b. Superpath Optical 45 megabit/sec service is furnished on a full-time basis.

* Registered Service Mark of Verizon Corporation.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

- c. Superpath Optical 45 megabit/sec service is provided on digital optical equipment and lightwave facilities selected by the Company and is provided only from serving wire centers equipped to furnish such service within a LATA.
- d. This service is subject to the availability of suitable lightwave facilities between the serving wire center and the customer's premises, and between serving wire centers when interoffice facilities are required.
- e. It is the responsibility of the customer (or any other party in interest such as the applicant for service or the owner or operator of the premises or the builder) to provide in a manner satisfactory to the Company and without cost to the Company: a means of entrance for the fiber optic cable into the building; space for mounting the necessary terminals and equipment; and, where required, a means to reach each floor and each suite or office on each floor where telephone service is desired.
- f. Service is provided by means of the following service arrangements:
 - (1) Service between two customer locations in the same serving wire center, which consists of two local distribution channels connected at the serving wire center.
 - (2) Service between two customer locations in different serving wire centers, which consists of two local distribution channels connected to an interoffice channel at the serving wire centers.
 - (3) Service between a customer location and a central office multiplexor, which consists of a local distribution channel, an interoffice channel if required, and a central office multiplexor.
 - (4) An interconnector, may request connection of the interconnector's multiplexing node to Superpath Optical 45 mbps Service in a Company central office. When such connection is provided the specified rates will apply for the service. A Service Access Charge and a Universal Service Element will apply for the connection of the Superpath Optical 45 mbps Service to the interconnector multiplexing node location within the central office. Product Guide, Part B rates will apply for all other Superpath Optical 45 mbps service elements provided.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

- g. This service is designed to provide an average performance of at least 98% error-free seconds transmission measured over a continuous 24 hour period at the Company interface.
- h. The minimum service period is three months.
- i. 110 volt AC, 15 amperes, separately fused, non switch controlled, single power outlet must be provided by the customer for this service.
- j. Battery backup for the customer's service may be provided by the Company at charges based on cost.
- k. The customer's equipment must comply with the jitter mask for a DS-3 signal in both transmit and receive directions, as specified in ANSI T1.102.

l. Credit Allowances for Interruptions

A credit allowance will be made when an interruption occurs because of a failure of any component furnished under this Product Guide, Part B. An interruption is considered to have occurred when the customer reports a circuit to be inoperative and releases it for testing and repair.

A circuit is considered inoperative when continuity has been lost, or when 1728 error seconds appears in a consecutive twenty-four hour period. If the customer reports an interruption but declines to release the circuit for repair and continues to use it, the circuit is considered to be impaired -- not inoperative -- and no credit allowance is made. An interruption period starts when an interruption is reported to the Company and the Company determines that the circuit is inoperative. An interruption period ends when the circuit is operative.

The customer may be asked to surrender a circuit for purposes other than maintenance, testing or activity relating to a service order. If the customer consents, a credit will be determined in the same manner as an allowance for circuit interruption.

m. Credit Allowances - Calculation

See Paragraph E.4.I. of this Section.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

n. Credit Allowances - Exceptions

See Paragraph E.4.I. of this Section

o. Mileage Measurements

1. Interoffice Channel

Mileage used to rate the Interoffice Channel is the direct airline distance measured between the serving wire centers.

2. Local Distribution Channel

Mileage used to rate the Local Distribution Channel is the direct airline distance measured between the customer designated premises and the serving wire center of that premises. The serving wire center associated with a customer designated premises is the serving wire center from which the customer would normally obtain dial tone. Any fractional 1/4 mile increment is considered to be a full 1/4 mile.

p. The Company shall not be responsible to the customer or user if changes in any of the facilities, operations or procedures of the Company utilized in the provision of Superpath Optical 45 megabit/sec service renders any equipment provided by a customer or user obsolete or requires modification or alteration of such equipment or system or otherwise affects its use or performance.

q. The Company undertakes to maintain and repair the facilities which it furnishes hereunder. The customer or user may not rearrange, disconnect, remove or attempt to repair any equipment installed by the Company without prior written consent of the Company.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

r. Local Distribution Channel

1. Monthly Rates

Standard monthly rates for Superpath Optical 45 megabit/sec service local distribution channels are ported in four rate steps (i.e., first channel, second and third channels, fourth through ninth channels, and tenth and over channels). Except as set forth in 6. following, these steps apply to all services for the same customer between the same two locations.

There are two monthly rates that apply for each step, i.e., as fixed rate and rate per quarter (1/4) mile. A minimum of a fixed rate and one per 1/4 mile rate applies to each local distribution channel.

2. Nonrecurring Charges

One level of nonrecurring charge applies for the local distribution channel termination or terminations associated with the first circuit installed on customer designated premises, and a different nonrecurring charge applies for each additional termination or terminations ordered and installed at the same time on the same customer designated premises for services between the same two locations.

s. Central Office Multiplexing

- (1) The Central Office Multiplexer channelizes up to 28 1.544 Mbps of 24 voice grade channels each.
- (2) Multiplexing equipment is available in designated central offices identified in the National Exchange Carrier Association Inc. Tariff F.C.C. No. 4.
- (3) The customer-provided multiplexer at the customer's premises must be compatible with the central office multiplexer.
- (4) A subscriber to Central Office Multiplexing will be billed for Superpath 45 megabit/sec service and the appropriate Superpath 1.5 megabit/sec service in addition to the central office multiplexing arrangement.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

4. Terms and Conditions (Continued)

s. Central Office Multiplexing (Continued)

(4) (Continued)

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(5) Rates and charges for Superpath 1.5 megabit/sec service between the central office multiplexer and the customer's premises will apply. A connection from a Superpath Optical 45 megabit/sec service central office multiplexer to a Superpath 1.5 megabit/sec service central office multiplexer within the same central office building will not incur additional charges other than those applicable to the multiplexers.

t. Waiver of Charges and Promotions

1. In order to promote the sale of Optical 45 megabit/sec service, the Company reserves the right to waive recurring monthly rates, or nonrecurring charges, or both, or to offer promotional rates for recurring monthly rates or nonrecurring charges or both.
2. Waivers and promotional rates in effect are listed in Part B, Section 18 of this Product Guide.
3. Each waiver or promotion will not extend beyond 90 days.
4. Appropriate notification of the waiver or promotion will be made to affected customers.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans

- a. A customer with one or more than one Superpath Optical 45 megabit/sec service between the same two locations has the option of requesting, at any time, a Service Discount Plan for some or all such services. The locations involved may be two customer designated premises or a customer designated premises and a Company location where multiplexing functions are performed.

A Service Discount Plan provides that the applicable monthly rates, as set forth in Product Guide, Part B Section 18 are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the selected commitment period as follows:

<u>Commitment</u> <u>Period</u>	<u>Discount</u> <u>Percentage</u>
3 Years	15%
5 Years	35%
7 Years	40%

Where Service Discount Plans are applied and all such services between the same two locations are not included in the same plan, the rate steps for the local distribution channel monthly rates are applied separately for those services included in each plan, and for those services subject to standard monthly rates.

When some of the services between the two locations are disconnected, the steps are applied on a last-in first-out basis.

The discount percentage is applied to the currently effective local distribution and interoffice channels and central office multiplexing monthly rates. Such rates may change during the commitment period, thereby causing an increase or decrease in the rates applicable to the customer.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

- b. Service Discount Plans are available for a commitment period of 3, 5 or 7 years. The length of the period is selected by the customer and a termination liability applies during the selected commitment period except as specified in F.5.d. e. and f. following. The discount plans apply only to the monthly rate for local distribution and interoffice channels and central office multiplexing. Nonrecurring charges and optional feature monthly rates are not included.

The discount percentage will not be subject to the Company initiated decrease during that period. However, if the Company initiates an increase in the discount percentage during that period, that increased discount will be used to determine the rates applicable to the customer.

c. Termination Liability

A termination liability applies during the selected commitment period. If service is disconnected in full or in part prior to the end of the selected commitment period, the customer is liable for a termination liability charge. Further, except as provided in d, e. and f. following, when a customer cancels a Service Discount Plan prior to the end of the selected commitment period, the customer is liable for a termination liability charge.

The termination liability charge applies to each service disconnected or, in the case of cancellation of a Service Discount Plan, to each service which has been included in the cancelled Service Discount Plan. When calculating termination liability charges the Company will apply the option which provides the customer with the lowest termination liability charge.

Option 1

The termination liability charge is 50% of the applicable monthly rates for the selected commitment period applied as follows:

- For disconnects on or prior to the end of the minimum period and prior to the end of the selected commitment period, the termination liability charge applies to each month and fraction thereof remaining between the disconnect date and the end of the selected commitment period.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

c. Termination Liability (Continued)

Option 1 (Continued)

- For disconnects after the end of the minimum period but prior to the end of the selected commitment period and for cancellations prior to the end of the selected commitment period, the termination liability charge applies to each month and fraction thereof in the balance of the selected commitment period.

For disconnects of some but not all services the monthly rates used to calculate termination liability charges are applied in ascending order beginning with the lowest applicable rates.

The monthly rates used to calculate out of service credit allowances are applied in ascending order beginning with the lowest applicable rates.

The termination liability charge applies in addition to applicable minimum period termination charges.

Option 2

- For disconnects on or prior to the end of the minimum period and prior to the end of the selected commitment period, the termination liability charge will be the difference between the full monthly rates and the discounted monthly rates for the period the service has been in effect.
- For disconnects after the minimum period but prior to the end of the selected commitment and for cancellations of the Service Discount Plan prior to the end of the selected commitment period one of the following formula applies:
 - a. When there is no Service Discount Plan period less than the actual time the services have been in effect, the termination liability charge will be the difference between the full monthly rates and the discounted monthly rates for the period the service has been in effect; or

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

c. Termination Liability (Continued)

Option 2 (Continued)

- b. Where there is a Service Discount Plan period less than the actual time the services have been in effect, the termination liability charge will be the difference between the monthly rates for the highest Service Discount Plan period that could have been satisfied prior to disconnection of the service or cancellation of the plan and the monthly rates for the selected commitment period multiplied by the actual number of months the service has been in effect. For example, if a customer has a 5-year plan and disconnects a DS-1 service after forty months, the highest Service Discount Plan period that could have been satisfied is three years. To determine the termination liability charge, the monthly rate for the 5-year plan is subtracted from the monthly rate for the 3-year plan and the difference is multiplied by the forty months that the service had been in effect.

d. Termination Liability for Service Discount Plans

Moves

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if all services subject to the Service Discount Plan is ordered to a new location.

Replacements

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if, upon cancellation of a service provided under a Service Discount Plan, the customer places a new or existing service of the same type not covered under a discount plan under the terms and conditions applicable to the disconnected service. The orders to disconnect the service and substitute the existing non-discounted service under the Service Discount Plan must be placed with the Company within sixty (60) days of each other.

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

d. Termination Liability for Service Discount Plans (Continued)

Rearrangements

Service rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements or a change in the physical location of the point of termination at a customer designated premises. Changes which result in a change in the minimum period requirements are treated as discontinuances of existing service and installations of new service. Changes in the physical location of the point of termination at a customer designated premises are treated as moves.

The charge to the customer for the service rearrangement is dependent on whether the change is administrative only in nature or involves actual physical change to the service.

Administrative changes, as follow, will be made without charge(s) to the customer:

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

LEASED CHANNELS

F. SUPERPATH* OPTICAL 45 MEGABIT/ SEC SERVICE (Continued)

5. Service Discount Plans (Continued)

d. Termination Liability for Service Discount Plans (Continued)

Upgrades

A customer subscribing to a Service Discount Plan will not incur a termination liability charge when the replacement service bit rate capacity is greater than the bit rate capacity of the service being discontinued and the Service Discount Plan for the replacement service is renegotiated for the same commitment period.

e. Additions of Service

When a customer with an existing Service Discount Plan wishes to increase the number of services of the same type between the same two locations, the following options are available:

(1) Subscribe to the additional services under non-discounted rates.

(2) Subscribe to the additional services under a separate Service Discount Plan.

f. Extension of Commitment Period

A customer may, at any time prior to the expiration of the selected commitment period for an existing Service Discount Plan, change to a Service Discount Plan with a longer commitment period at the new discount percentage. No termination liability charges will apply for any services extended to the longer commitment period.

g. Rate Terms and Conditions

Where the Service Discount Plan is requested to be provided coincident with the connection of new service, it will be effective with the establishment of service.

Where the Service Discount Plan is requested to be provided on existing services, the effective date will be the first bill date following the receipt of the service order requesting the discount.

At the end of its selected commitment period, the customer will have the option of subscribing to any then effective Service Discount Plan or of retaining the service under the standard rates in effect at that time. If the customer does not execute a new Service Discount Plan prior to the expiration of the commitment period.

LEASED CHANNELS

G. HIGH VOLTAGE PROTECTION EQUIPMENT

1. General

High Voltage Protection Equipment is designed to isolate or neutralize fault-produced hazardous voltages. Company services provided on metallic facilities extending to electric power generating, switching and distributing locations (together, "Power Stations") require High Voltage Protection Equipment to protect the circuit and the Company's central office against the effects of a Ground Protection Rise (GPR) or induction caused by faults in the customer's electric power system.

High Voltage Protection Equipment is intended to minimize electrical hazards to personnel, to prevent electrical damage to telecommunications equipment and facilities, and to provide the required continuity of telecommunications transmission at times of power system faults.

If the Company determines that specially engineered and constructed fiber optical facilities rather than metallic facilities are necessary to serve an electrical supply location it will provide such facilities pursuant to Tariff PSC No.15, Sections 1(A)(6) and 1(A)(7), and Tariff PSC No. 7 and Part F of this Product Guide (as applicable). Where the Company determines that fiber optical facilities are required, they will provide the customer with written notice of that decision and the reason underlying that determination. Installation and other work provided and charged pursuant to such Product Guide/tariffs will be referred to herein as "Special Construction".

2. Provisioning

Two options are available for provisioning new High Voltage Protection Equipment:

- a. Option 1: The Company will select, provide, install, and maintain the necessary High Voltage Protection Equipment at its Product Guide, Part B rates including the monthly rates and installation charges listed in Part B, Sections 18 of this Product Guide.
- b. Option 2: The customer will provide and maintain any High Voltage Protection Equipment deemed by the Company to be necessary for the customer's location(s). The Company will install and inspect the High Voltage Interface equipment provided by the customer, and will provide any necessary dielectric cable, on a Special Construction basis. When the customer elects to provide and maintain its own High Voltage Protection Equipment, it will be solely responsible for interruptions associated with such selection and maintenance. The customer will remain the owner of any High Voltage Protection Equipment that it provides.

LEASED CHANNELS

G. HIGH VOLTAGE PROTECTION EQUIPMENT (Continued)

3. Other Terms and Conditions

The following terms and conditions apply in addition to the General Rules and Terms and Conditions in Part A, Section 1 of this Product Guide:

- a. The Company reserves the right to discontinue any service for which the High Voltage Protection arrangements in place do not isolate or neutralize fault-produced hazardous voltages. In the alternative, it may correct any fault in the existing High Voltage Protection provided by the customer pursuant to provisioning Option 2, above, on a Special Construction basis.
- b. High Voltage Protection Equipment is required on all telephone facilities in service at the customer location when: (1) the fault- produced GPR and/or voltage induction at the customer location is 1000 volts peak or greater; **or** (2) regardless of the fault-produced GPR and/or voltage induction at the customer location, at least one telecommunications circuit at that location has been assigned a Class A Service Performance Objective by the customer. High Voltage Protection Equipment is required at any time either of such tests is satisfied at the customer location, whether that occurs at the initial installation of telecommunications facilities or at some subsequent time.
- c. When the customer orders service from the Company, it shall specify the service type involved and the class of service performance (SPO) it wishes to order, as described in sections 10(H)(4) and 10(H)(5) following. The customer shall also advise the Company at such time of the expected fault-produced electrical environment at the customer's location so that the Company can determine the High Voltage Protection required. The Power Station data provided to the Company must be signed and stamped by a New York State Licensed Professional Engineer prior to submission.

The Company shall engage in a cooperative decision-making process with the customer and shall make good faith efforts to reach a resolution as to the appropriate protection arrangement, provided however that it shall be the sole right and responsibility of the Company to make the decision on the protection arrangement.

LEASED CHANNELS

G. HIGH VOLTAGE PROTECTION EQUIPMENT (Continued)

3. Other Terms and Conditions (Continued)

- d. High Voltage Protection Equipment must comply with the requirements of the Institute of Electrical and Electronic Engineering Standard 487-2000, "IEEE Guide for the Protection of Wire-Line Communications Facilities Serving Electric Power Stations".
- e. Service Performance Objective for Class A service requires additional protective equipment installed in the Central Office. Such equipment will be provided at Product Guide, Part B rates.
- f. Any Company engineering consultations and inspections requested by the customer, which are in addition to normal installation or maintenance visits, will be provided on a Special Construction basis, upon customer approval of the charges.
- g. Where required, site preparation charges for labor, engineering, permits, contracting services, and material will be provided on a Special Construction basis.
- h. Alternate route facilities may be provided on a Special Construction basis.
- i. Alternative High Voltage Protection arrangements, other than what is described in this Product Guide, Part B shall be provisioned on a Special Construction basis.

LEASED CHANNELS

G. HIGH VOLTAGE PROTECTION EQUIPMENT (Cont'd)

4. Service Types. The following are the service types to be specified by the customer pursuant to paragraph 10(H)(3)(c), preceding.

- a. Type 1 - service channels requiring DC transmission or AC and DC transmission generally used for:

Exchange Telephone service or voice leased channel service, i.e. teletypewriter, telemetering, supervisory control, etc.

- b. Type 2 - leased channel services requiring either DC or AC and DC transmission used for pilot wire protective relaying or DC tripping.

- c. Type 3 - leased channel services requiring AC transmission only and used for telemetering, supervisory control, data, etc.

- d. Type 4 - leased channel services requiring AC transmission only and used for audio tone protective relaying.

- e. Digital Data Services – for digital data service offerings only.

5. Service Performance Objectives. The following are the service performance objectives to be specified by the customer pursuant to paragraph 10(H)(3)(c), preceding.

Class A Protection provides for non-interruptible service. These circuits must function before, during and after the power fault condition.

Class B Protection - service performance is less critical than Class A Protection in that a service interruption can be tolerated for the duration of a power system fault but service continuity must be restored immediately after the fault.

6. Rates and Charges

See Part B, Section 18 of this Product Guide.

LEASED CHANNELS

H. ALTERNATE SERVING WIRE CENTER SERVICE

1. General

Alternate Serving Wire Center (ASWC) service is an optional feature in which voice grade and Superpath Private Lines are provided over an alternate route to a serving wire center other than the normal wire center presently serving the customer's designated premises. To help meet the needs of customers requiring local loop diversification of their Private Line services ASWC offers a significant reduction in the risk of total service outage in the event of a failure in the normal serving wire center (central office) or local loop plant serving the customer's premises.

ASWC service is available on Voice Grade analog private lines (2 or 4 wire circuits) and on Superpath 1.5 megabit/sec. and Superpath Optical 45 megabit/sec. high capacity channels.

The Company reserves the right to designate the alternate wire center to be used. However, the mileage used to determine the monthly rate for distance sensitive circuits and channel terminations is based on the airline distance between the normal serving wire center and the customer's designated premises.

In all instances, ASWC service is optional and ASWC rates and charges are in addition to existing Product Guide, Part B rates and charges for qualifying services of voice grade private line circuits and Superpath high capacity channels.

Customers may choose month-to-month, 3 year, 5 year and 7 year payment plans as outlined in Paragraphs I.4. and I.4.1. following.

Termination liability applies as specified in Paragraphs E.6. and F.5.g. preceding.

2. Terms and Conditions

- a. ASWC service is furnished subject to the availability of facilities as specified in Part A, Section 1 of this Product Guide.
- b. The Company reserves the right to designate the Alternate Serving Wire Center.
- c. ASWC service requires fiber facilities and electronics equipment which is normally provisioned and located in the central office. However, in some cases additional electronic equipment may be required, preferably located near a communications distribution cable entrance of the customer premises. This equipment requires ample space mutually agreed upon by the Company's technical personnel and the customer of a single-tenant building or the building manager of a multi-tenant building, at no cost to the Company.

LEASED CHANNELS

H. ALTERNATE SERVING WIRE CENTER SERVICE (Continued)

2. Terms and Conditions (Continued)

- d. Subscribers requesting ASWC at locations which are not in a fiber ready condition will receive a negotiated provisioning interval. In cases where fiber and electronics equipment are not available, special construction charges may apply.
- e. Monthly rates for the ASWC service apply per point of termination as specified in Part B, Section 18 of this Product Guide. Upon provisioning of the necessary fiber and electronics the additional ASWC rates will apply for alternate routed service.
- f. A minimum three (3) month service period applies.
- g. Disconnect and reconnect orders are required for moving and reconfiguring the circuits and channels when the customer requests ASWC.

3. Rates and Charges

For rates and charges, see Part B, Section 18 of this Product Guide.

LEASED CHANNELS

I. FLEXGROW[®] SERVICE

Effective March 9, 2016, Flexgrow Service has been withdrawn from this Product Guide, and Verizon will no longer provide this service as of that date. Any customer still under contract may continue to use the service until the expiration of their contract.

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LEASED CHANNELS

I. FLEXGROW SERVICE

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LEASED CHANNELS

I. FLEXGROW SERVICE (Continued)

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LEASED CHANNELS

I. FLEXGROW SERVICE (Continued)

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LEASED CHANNELS

I. FLEXGROW SERVICE (Continued)

Effective March 9, 2016, Flexgrow Service has been withdrawn from this Product Guide, and Verizon will no longer provide this service as of that date. Any customer still under contract may continue to use the service until the expiration of their contract.

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LEASED CHANNELS

J. ENHANCED FLEXGROW[®] SERVICE

Effective March 9, 2016, Enhanced Flexgrow Service has been withdrawn from this Product Guide, and Verizon will no longer provide this service as of that date. Any customer still under contract may continue to use the service until the expiration of their contract.

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LEASED CHANNELS

- J. ENHANCED FLEXGROW SERVICE (Continued) 1
Effective March 9, 2016, Enhanced Flexgrow Service has been withdrawn from this Product Guide, (C)
and Verizon will no longer provide this service as of that date. Any customer still under contract may
continue to use the service until the expiration of their contract. J
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LEASED CHANNELS

- J. ENHANCED FLEXGROW SERVICE (Cont'd) 1
Effective March 9, 2016, Enhanced Flexgrow Service has been withdrawn from this Product Guide, (C)
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LEASED CHANNELS

- J. ENHANCED FLEXGROW SERVICE (Continued) 1
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LEASED CHANNELS

- J. ENHANCED FLEXGROW SERVICE (Continued) 1
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LEASED CHANNELS

- J. ENHANCED FLEXGROW SERVICE (Continued) 1
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LEASED CHANNELS

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LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR)

1. General

The Company's Dedicated SONET Ring Service (DSR) is an optical high capacity service provided using SONET-based technology. DSR is provided on SONET facilities except where a service is extended on an "off-net" facility.

2. Description

DSR provides the customer a dedicated high capacity customized network. The network is in a ring architecture or topology that assures greater survivability and can be arranged as a full ring, a partial ring, or a ring-on-ring topology that provides connectivity to multiple customer locations.

A full ring must have a minimum of three nodes with at least one of the nodes being located in a Company Central Office (CO) and one being located at a customer premises. The fiber path is such that when traversing the ring, the starting node and the end node are the same.

A partial ring must have a minimum of two nodes with at least one of the nodes being located in a CO and one being located at a customer premises. The customer premises node can be substituted with a high-speed interface if the customer circuits that are provisioned on the partial ring are connected in a CO. The fiber path is such that when traversing the ring, the starting node and the end node are different.

A ring-on-ring arrangement is a full ring riding over a larger full ring. The lower speed ring must have a minimum of two nodes with at least one of the nodes being located at a customer premises.

DSR is an alternative to basic High Capacity point-to-point service between multiple customer locations. Monthly rate elements include ports, nodes, mileage and high-speed interfaces (certain partial ring configurations only). When a DS1 service is provided between a DS1 port on an OC3 DSR CO node and a channel of a multiplexed 44.736Mbps or groomed NES DS3 facility, a ThruPath Connection nonrecurring charge applies. ThruPath connections at service levels less than, or greater than, DS1 are prohibited with DSR.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

3. Explanation of Terms

ADD/DROP MULTIPLEXING (ADM) is a multiplexing function that allows lower level signals to be added or dropped from an optical carrier channel.

NODE is an DSR rate element and a designation of either a customer location or CO on a SONET ring that has ADM capability. It is also the address of where a channelized (lower speed) service originates or terminates on a ring.

HIGH SPEED INTERFACE is an DSR rate element on a partial ring service that allows high-speed connection of the Company's facilities to the facilities of the customer or of a third party. High-speed connection is provided at a location that is mutually agreed upon by the Company and the customer.

OPTICAL CARRIER RATE (OC #) is a SONET transmission signal/speed, line rate, or service. The rates are in multiples of an OC1, which is equivalent to a Synchronous Transport Signal Level (51.84 Mbps), SONET's basic rate.

<u>OC(#) Rate</u>	<u>Bandwidth Capacity</u>
3	155.52 Mbps
12	622.08 Mbps
48	2.488 Gbps
192	9.952 Gbps

OPTICAL CARRIER RATE Concentrated (OC#c) is a "clear channel" SONET transmission using only one framing format. Generally, an OC3 signal provides three Synchronous Transport Signal Level (STS1) frame formats with 3 overheads for a total capacity of 2268 bytes per Synchronous Payload Envelope (SPE) frame; in an OC3c signal, one STS3c frame format is used with one overhead, increasing the total payload capacity to 2340 bytes per SPE frame.

OC12+3, OC48+3, OC192+3, OC192+12, and OC192+48 are designations for nodes in ring-on-ring designs; the higher speed ADM is part of the true ring, and the lower speed ADM is connected for the purpose of mapping lower speed services onto the STS1s of the OC12, OC48 or OC192.

DSR PORT (Port) is an DSR rate element that denotes the interface at which a channelized or lower speed service terminates or originates at an DSR node.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

3. Explanation of Terms (Continued)

SONET (SYNCHRONOUS OPTICAL NETWORK) is an international standard for the transmission of high capacity bandwidth over optical facilities. This synchronous transmission platform utilizes a modular multiplexing approach. Because of the large bandwidth, some of the payload is used to monitor, protect, manage and improve the transmission of the signal.

SYNCHRONOUS TRANSPORT SIGNAL LEVEL (STS1) is a 51.84 Mbps signal that is the electrical equivalent of the OC1 or a DS3 with additional Mbps devoted to SONET overhead information. An STS1 can carry a DS3 or 28 DS1s when specifically formatted (mapped). These DS1s may be accessed off-ring using the Product Guide, Part B DS3 to DS1 multiplexing optional service or via a DS3 Transmux port.

TRANSMUXING is the function of an DSR DS3 Transmux port that performs a DS3 to DS1 conversion at an DSR Node. The DS3 to DS1 conversion allows a single DSR DS3 Transmux port to be associated with up to twenty-eight (28) Virtual Tributary (VT1.5) mapped DSR DS1 ports. Transmuxing within the DSR network retains DS1 visibility allowing for proactive maintenance capability of DS1 signals.

VIRTUAL TRIBUTARY (VT) is a SONET structure designed for transport of sub-STs1 payloads. A DS1 is mapped into the SONET format using a VT1.5 as a packaging mechanism that is internal to the SONET signal.

4. Terms and Conditions

a. All Rings

- (1) When a customer premises node is located in the same building as a CO node, there may be less diversity between the two nodes.
- (2) When a customer transmits STS1, Internet Protocol or Ethernet signals, the mapping feature must be employed.
- (3) Ethernet services are provided on a point-to-point basis between two suitably equipped DSR nodes.
- (4) Extended Superframe Format (ESF) is required on all DS1 circuits.
- (5) DSR is designed to function normally with transmissions of less than 20 miles, or with transmissions through up to 5 COs. Generally, a transmission of 20 or more miles or a transmission through 6 or more COs will be subject to loss of signal integrity. Additional nodes may be added to maintain signal integrity.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

a. All Rings (Continued)

- (6) The customer specifies the ring capacity in terms of optical carrier rates. DSR is available in capacities of OC3, OC12, OC48 and OC192. Lower speed channel services are provided between nodes via ports.
- (7) DSR is deployed upon customer request, and is available based on negotiated intervals. Where suitable SONET facilities are not available, Special Construction rates and charges may apply.
- (8) The customer must provide, at no cost to the Company, suitable and secure space, suitable environmental conditions, and uninterrupted power supply, building entrance facilities, and conduit for placement of the facilities and network equipment at its locations as necessary to provide the service.
- (9) One or more lower speed node(s) may subtend a higher speed node (e.g., an OC12 node may subtend an OC192 node). Rates and charges apply for both the higher speed node and for each subtending lower speed node provided. Additionally, the applicable port charge will apply to drop the lower speed channel that connects the higher speed node to the subtending lower speed node.

b. Partial Ring

When DSR is provided in a partial ring configuration, the following applies:

- (1) The customer must provide the Company with its fiber optic facility requirements (i.e., whether it will use single mode fiber or multi-mode fiber) prior to the Company ordering the necessary SONET network equipment to provide the requested service. The customer may utilize its own fiber optic facilities or the facilities of a third party.
- (2) When ordering lower speed channels that originate at and terminate to nodes that are not within the partial ring provided by the Company, the customer must provide the Company with a copy of the order the customer placed with the third party provider, to insure technical compatibility for mapping channels between the service provided by Verizon and the service provided by the third party. A Channel Mapping nonrecurring charge will apply for each channel mapped from the Company provided partial ring to the service provided by the third party. Channel mapping charges do not apply when ordering channels that originate at and terminate to nodes on the Company's portion of the partial ring.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

b. Partial Ring (Continued)

(3) Connection to Partial Ring Service:

The Company's network design will define the optical parameters at the connection locations. The Company is responsible for the optical parameters of the high-speed optical signal at the location where its facilities are connected to the facilities of the customer or of the third party. The Company bears no responsibility for the optical parameters beyond its location (i.e., in the facilities of the customer or of the third party). The customer or third party is responsible for engineering its portion of the jointly provided ring.

Connection to DSR partial ring service is limited to high-speed fiber connection of the Company backbone network fiber optic facilities and the fiber optic facilities of the customer or of a third party. Partial ring service may only be connected to (1) another partial ring provided by the Company or (2) suitable ring facilities provided by the customer or third party. The portion of the ring provided by the customer or third party must use vendor equipment that matches the equipment used by the Company and must maintain the same vintage in software release as the Company. Upon written notice by the Company, the customer or third party will have sixty (60) days in which to complete the change out of any software release deployed by the Company.

Connection to DSR partial ring services may occur at the customer premises at which location the connection will occur via a node or at a mutually agreed upon location where connection occurs via a high-speed interface. Connection to other Company services may not occur at the mutually agreed upon high-speed interface. Such location will be designated as a customer premises for the purpose of administering the general terms and conditions set forth in Part A, Section 1 of this Product Guide.

c. Ring-on-Ring

When DSR is provided in a ring-on-ring design, the following applies:

- (1) The lower speed ring must have a minimum of two nodes located at the customer premises or one node at the customer premises and one node at the CO.
- (2) The Company must provide the lower speed nodes.
- (3) Each lower speed node must subtend off of its corresponding higher speed node.
- (4) Ring-on-Ring designs may not include a mix of enhanced nodes and those nodes that are not enhanced.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

d. Subtending Rings

The customer may interconnect two or more full rings in a subtending ring configuration subject to the following:

- (1) One of the Dedicated SONET Ring Service (DSR) full rings must be designated as the main ring from which the other DSR full ring(s) will subtend. The main ring must be of equal or greater capacity than each DSR full ring that subtends the main ring. For example, a main ring that is an OC12 DSR can have an OC3 and/or OC12 subtending ring but cannot have an OC48 subtending ring. The number of rings that can subtend a main ring may be limited by the type and capacity of the nodes and port configuration specific to the customer's overall DSR service configuration.
- (2) Interconnection between the main ring and the subtending ring requires a port node. A port node provides high speed interconnection between an enhanced node on the main ring and the high speed facilities of the subtending ring. Each subtending ring requires one port node where the subtending ring is interconnected to an enhanced node on the main ring. Interconnection between the main ring and a subtending ring may occur at a customer designated premises or within a Utility wire center where such nodes are located. A maximum of two (2) interconnection points with the main ring are allowed per subtending ring.
- (3) Only DSR full rings that utilize suitably equipped enhanced nodes can be arranged in subtending ring configurations. DSR full rings that utilize nodes that are not enhanced will not be arranged in a subtending ring configuration(s).
- (4) Each DSR full ring included in a subtending ring configuration must be arranged as a unidirectional path switched ring (UPSR) and must use nodes that are enhanced. Bidirectional path switched rings (BLSR) may not be arranged in subtending ring configurations.
- (5) DSR partial rings may not be arranged in subtending ring configurations.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

d. Subtending Rings (Continued)

- (6) Where two (2) points of interconnection between the subtending ring and the main ring are provided, circuits originating on the main ring may be mapped to the subtending ring and circuits originating on the subtending ring may be mapped to the main ring. Channels mapped across the two interconnecting nodes are subject to Dual Node Cross-connect Channel Mapping charges as described in Part B, Section 18 of the Product Guide.
- (7) The main ring and any subtending rings associated with the main ring must individually meet the minimum requirement of three nodes. However, only one node for the entire service configuration must be located in a Utility wire center. For example, if the main ring has one node located in a Utility wire center and two nodes located at customer designated premises, the subtending ring(s) need not have a node that is located in a Utility wire center.
 - i. When determining if the minimum number of nodes on a subtending ring has been met, the port node providing interconnection to the main ring is included in the count.
 - ii. When determining if the minimum number of nodes on a subtending ring has been met, the enhanced node on the main ring that interconnects with the subtending ring is not included in the count.
- (8) Each subtending ring may only interconnect with one main ring.
- (9) Subtending ring configurations may be established using new DSR full rings, existing DSR full rings, or a combination of new and existing DSR full rings.
- (10) All DSR rings in the same subtending ring configuration must be for the same customer of record.

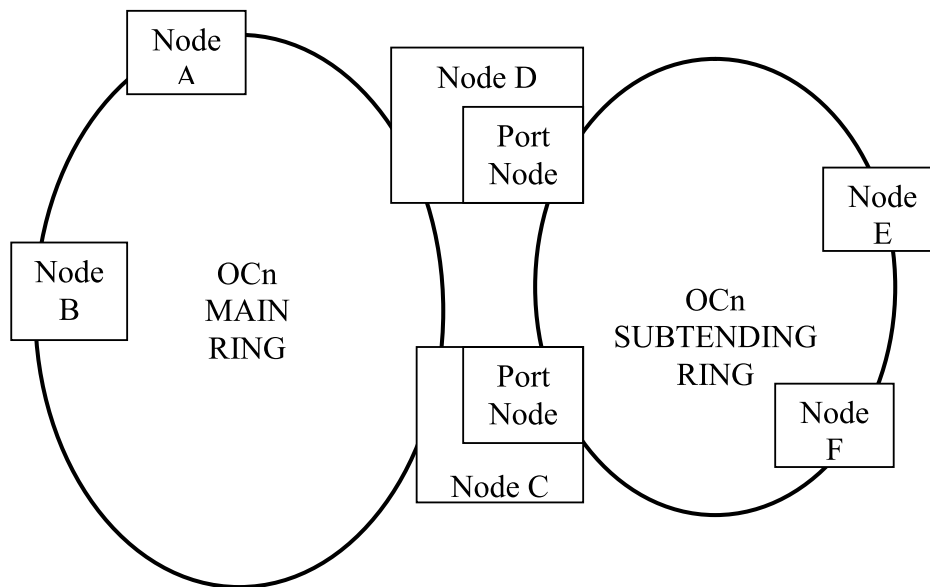
LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

d. Subtending Rings (Continued))

(11) An example of a subtending ring configuration with two (2) points of interconnection to the main ring is diagrammed below.



Applicable rate elements to above diagram:

- Nodes (6)
- Port Node (2)
- Mileage for circumference of Main Ring
- Mileage for circumference of Subtending Ring

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

d. Subtending Rings (Continued))

- (12) Lower speed services provided over DSR must ingress at a node on either ring (the main ring or the subtending ring) and egress at a node on either ring (the subtending ring or the main ring). A single port charge applies at the point of ingress and a single port charge applies at the point of egress, unless the ingress and/or egress occurs via an asymmetrical port facility in which case a separate port charge will not apply for each such ingress or egress.
- (13) At the customer's option, a lower level service may interconnect the main and one (1) or more of the subtending ring(s) through two (2) separate points of interconnection with each subtending ring. In this case, a single Dual Node Cross-connect Charge applies per lower level service provided across the interconnecting port nodes, regardless of the number of subtending rings involved. The Dual Node Cross-connect Charge does not apply when a lower level service interconnects the main and subtending ring(s) through a single point of interconnection.
- (14) In the event that the customer elects to make a subtending ring an independent full DSR, the independent full DSR ring must meet all of the requirements for a DSR full ring as set forth in (Section 10.M.2) preceding. This may require an additional node in order to satisfy the minimum node requirement for a single, independent ring.
- (15) The connection between the higher and lower speed enhanced nodes is a SONET facility (Subtending Node Facility) between an OCn port on the higher speed node and the lower speed node, which must be of the same optical carrier rates as the OCn port on the higher speed node.
- e. The customer must provide, at no cost to the Company, suitable and secure space, suitable environmental conditions, and uninterrupted power supply, building entrance facilities, and conduit for placement of the facilities and network equipment at its locations as necessary to provide the service.
- f. The customer will be billed additional charges for any charges levied the Company for space and power required to place ADMs on the Company's side of the network interface.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

g. Ports

The type of ports that are supported on a node may limit the maximum number of ports that are provided on that node. Accepted port speeds are as follows:

Enhanced Nodes =	OC3	OC12	OC48	OC192
DS1 Ports	X	X	X	X
DS3 Ports	X	X	X	X
DS3 Transmux Ports	X	X	X	X
STS1 Ports	X	X	X	X
OC3 Ports		X	X	X
OC3c Ports		X	X	X
OC12 Ports			X	X
OC12c Ports			X	X
OC48 Ports				X
OC48c Ports				X
Ethernet Ports				
GigE-1 Ports		X	X	X
GigE-3 Ports		X	X	X
GigE-6 Ports		X	X	X
GigE-9 Ports		X	X	X
GigE-12 Ports			X	X
GigE-24 Ports			X	X
1 GBPS Fibre Channel			X	X
1 GBPS FiCON			X	X

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

g. Ports (Continued)

- (1) Changes in month-to-month ports are treated as disconnects and subsequent installations.
- (2) When High Capacity services are provided between two DSR rings, the associated ports must be symmetrical (e.g., DS1 Port to DS1 Port, DS3 Port to DS3 Port).
- (3) When a lower capacity service is dropped from an DSR, the associated ports will be billed to the lower capacity service. Lower capacity services may not be dropped at locations utilizing a high-speed interface.
- (4) Ports may be ordered in a symmetrical arrangement (e.g., DS3 Port to DS3 Port), an asymmetrical arrangement (e.g., OC12 Port to DS3 Port) or in certain transmuxing arrangements as specified following. Ethernet ports may only be ordered in symmetrical arrangements. Ports are not provided at mutually agreed upon locations where a high-speed interface is utilized.
- (5) When transmuxing arrangements are ordered in symmetrical or asymmetrical port combinations, the following conditions apply:
 - (a) A DS1 port associated with a DS3 Transmux port may not coexist as a separate DS1 port with the same DSR node.
 - (b) An end-to-end DS1 service provided over DSR may not be associated with more than one DS3 Transmux port.
 - (c) DS3 Transmux ports are available at premises nodes or at CO nodes.
 - (d) The higher speed port of an asymmetrical port combination will be mapped based on the speed of the connecting service and port.
- (6) For all other asymmetrical port combinations, the following conditions apply:
 - (a) The higher speed port will be mapped based on the speed of the connecting service and port. The higher speed port is referred to as a Stub Hub Port in the arrangement.
 - (b) The Stub Hub Port is only available at a premises node.
 - (c) Stub Hub Ports are not provided on partial ring configurations.
 - (d) The lower speed port(s) can be provided at customer premises and CO nodes.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

g. Ports (Continued)

(7) Port Nodes

- (a) A port node allows interconnection between two (2) full DSR rings. One (1) of the rings will be designated as the main ring and the other ring is designated as a subtending ring. Subtending rings are described in M.4 preceding.

(8) Asymmetrical ports are available in the following combinations:

APF Asymmetrical Port	Ring Capacity	Node Speeds	Rate Combination
OC3 DSR Ring	OC3 – OC3	STS1	STS1 – DS3 STS1 – DS1
OC12 DSR Ring	OC12 – OC12	OC3	OC3 – STS1 OC3 – DS3 OC3 – DS1 OC3 – GigE3 OC3 – GigE1
OC48 DSR Ring	OC48 – OC48	OC12	OC12 – OC3 OC12 – OC3c OC12 – STS1 OC12 – DS3 OC12 – DS1 OC12 – GigE12* OC12 – GigE9* OC12 – GigE6* OC12 – GigE3* OC12 – GigE1*
	OC3	OC3 – STS1	OC3 – DS3 OC3 – DS1 OC3 – GigE3* OC3 – GigE1*

* For Ethernet (GigE) port options, the associated Ethernet Service must be SONET mapped.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions(Continued)

g. Ports (Continued)

(8) Asymmetrical ports are available in the following combinations: (Cont'd)

APF Asymmetrical Port	Ring Capacity	Node Speeds	Rate Combination
OC192 DSR Ring	OC192 – OC192	OC48	OC48 – OC12
			OC48 – OC12c
			OC48 – OC3
			OC48 – OC3c
			OC48 – STS1
			OC48 – DS3
			OC48 – DS1*
			OC48 – GigE24*
			OC48 – GigE12*
			OC48 – GigE9*
			OC48 – GigE6*
			OC48 – GigE3*
			OC48 – GigE1*
		OC12	OC12 – OC3
			OC12 – OC3c
			OC12 – STS1
			OC12 – DS3
			OC12 – DS1*
			OC12 – GigE12*
			OC12 – GigE9*
			OC12 – GigE6*
			OC12 – GigE3*
			OC12 – GigE1*
		OC3	OC3 – STS1
			OC3 – DS3
			OC3 – DS1*
			OC3 – GigE3*
			OC3 – GigE1*

* For Ethernet (GigE) port options, the associated Ethernet Service must be SONET mapped.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

h. Interfaces

DSR is only available for the following interface combinations:

DS1 – DS1

DS1 – STS1

DS3 – DS3

DS3 – DS1

STS1 – STS1

OC3 – STS1

OC3 – OC3

OC3 w/DS3 mapping – DS3

OC3 w/DS1 mapping - DS1

STS1 w/DS3 mapping – DS3

STS1 w/DS1 mapping - DS1

OC3c – OC3c

OC12 – STS1, DS3, OC3, OC3c & OC12

OC12c – OC12c

OC48 - STS1, DS3, OC3, OC3c, OC12, OC12c & OC48

OC48c - OC48c

Gigabit Ethernet

GigE1 – GigE1 (mapped as 1 STS1 channel)

GigE3 – GigE3 (mapped as 3 STS1 channels or 1 STS3c channel)

GigE6 – GigE6 (mapped as 6 STS1 channels or 1 STS6c channel)

GigE9 – GigE9 (mapped as 9 STS1 channels or 1 STS9c channel)

GigE12 – GigE12 (mapped as 12 STS1 channels or 1 STS12c channel)

GigE24 – GigE24 (mapped as 24 STS1 channels or 1 STS24c channel)

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

i. Mileage

- (1) DSR Mileage on a full ring is the total of airline distances between nodes rounded up to the nearest mile.
- (2) DSR Mileage on a partial ring is the total of airline distances between connection locations and each node on the partial ring. The total mileage is then rounded up to the nearest mile.
- (3) The mileage rate is based on total ring capacity and not on individual services between nodes. For example, the mileage charge for a four-node OC3 ring with 5.1 miles between each node (20.4 total miles) would be calculated by multiplying the OC3 mileage rate by 21 miles. This mileage calculation applies regardless of the number of services (e.g., DS3s) on the ring.
- (4) When DSR is provided entirely or in part over a Dedicated Wavelength Ring (DWR), connection between the DSR nodes is provided using SONET Private Line transport channels in lieu of DSR channel mileage between the nodes.
- (5) When DSR is provided entirely or in part over a Company provided DWDM ring service backbone network, DSR channel mileage will not apply between the nodes.

j. Commitment Period

DSR is available for 3, 5 and 7-year commitment periods, for ports, nodes, mileage and high-speed interfaces. Ports are also available on a month-to-month basis. Ports and nodes added subsequent to the initial installation may be coterminous to the expiration date of the DSR provided the addition is prior to the 21st month for a 3-year plan, prior to the 36th month for a 5-year plan, or prior to the 50th month for a 7-year plan. Ports and nodes added after the aforementioned periods require extending the commitment period for an additional one-year for a 3-year plan, an additional 2 years for a 5-year plan, or an additional 3 years for a 7-year plan. Ports in a month-to-month plan may be added at any time. The added nodes must be at the same or lower speed as the existing nodes.

Monthly recurring rates apply for the ports, nodes, mileage and high-speed interfaces. Once a term period expires, the prevailing rates of the current plan will continue until the customer cancels service or requests a new term plan.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

j. Commitment Period (Continued)

Nonrecurring charges for ports apply on a first and additional basis. To qualify as first and additional, the ports must be like-ports (e.g., 2 DS1 Ports) installed at the same node at the same time. Nonrecurring charges apply to the initial installation of ports purchased on a month-to-month basis, and to the subsequent installations of all ports and nodes.

k. Termination Liability

Termination liability applies to DSR service, and is charged per rate element on all ports, nodes, mileage and high-speed interfaces, except month-to-month ports for which the one-month minimum service charge applies.

Termination liability will apply when the customer cancels service prior to expiration of the selected term, unless the exception conditions described below are met. If the cancellation occurs within the first two years of the term, termination liability is equal to 100 percent of the monthly charges for the unexpired portion of the first two years of the term, and 25 percent of the monthly charges for the remainder of the term. If the customer cancels after the first two years of service, then termination liability is equal to 25 percent of the monthly charges for the remainder of the term.

DSR service may be canceled without termination liability when cancellation of the service occurs within thirty (30) days of the effective date of a Company initiated rate increase of eight percent (8%) or more on any rate applicable to DSR service.

Termination liability will not apply if a customer changes to a longer-term commitment period, and the number of services or ports included in the new commitment period remains the same or increases.

Termination liability will not apply to a customer upgrade (change to a higher capacity) of an DSR node or port, if all of the following conditions are met:

- (1) A new commitment period commences with the upgrade.
- (2) The new expiration date must extend beyond the discontinued plan date.
- (3) The new DSR service is provided at the same customer and/or Company location(s) as the discontinued service plan.
- (4) Additional nodes and ports added at the time of the upgrade or thereafter incur all applicable rates and charges.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

k. Termination Liability (Continued)

A customer can move a node from one location to another location without incurring termination liability providing that all of the following conditions are met:

- (1) A new commitment period commences with the move.
- (2) The new expiration date must extend beyond the discontinued plan date.
- (3) The customer accepts a temporary interruption of the existing service in order to establish the new service.
- (4) The new service is ordered at the same time as the service being disconnected.

For DSR with a commitment period which was extended under (j.) following, termination liability is calculated as the difference between the monthly rates for the highest commitment period that could have been satisfied prior to disconnection of the service or cancellation of the plan and the monthly rates for the extended commitment period for the period of time the service was in effect.

l. Conversions

Customers who wish to move or convert existing High Capacity services to an DSR may do so without conversion charges (termination liability and installation charges) as long as the total capacity of service purchased by the customer does not decrease.

m. Extension of a Commitment Period

For DSR, the customer also has the option, within sixty (60) days prior to the expiration date for its commitment period, to extend its expiring term plan to a plan with a longer commitment period. The commitment period selected for the extended plan must be longer than the commitment period of the expiring plan as follows:

- An expiring 3-Year Term may be extended to either a 5-Year or 7-Year Term Plan.
- An expiring 5-Year Term may be extended to a 7-Year Term Plan.

Time-in-service credit on the expiring plan will be granted and applied towards the new extended plan. For example, an expiring 3-Year term plan will allow for 3 years of time-in-service credit towards a 5-Year or 7-Year extended plan.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

n. Service Interruption

(1) Credit Allowance Applies:

DSR is guaranteed service restoral within one minute in the event of a service interruption except as specified in (2) following. Any service interruption greater than one minute due solely to a Company facility failure will result in a credit allowance of 100% of the monthly rate for the applicable rate elements of the affected service, provided that the interruption is brought to the attention of the Company within 10 days. The total credit allowance in any one billing period cannot exceed 100% of the customer's monthly rate for the affected rate elements, regardless of the number or length of service interruptions within a billing month.

(2) A Credit Allowance Does Not Apply for:

- (a) Service interruptions of less than one minute.
- (b) Service interruptions caused by the negligence of the customer or authorized user.
- (c) Service interruptions resulting from the failure of equipment or systems provided by the customer or authorized user.
- (d) Service interruptions during any period in which the Company is not afforded access to a premises for testing and/or repair of service.
- (e) Service interruptions when the customer has released the service to the Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer prior to the release of that service.
- (f) Service interruptions which continue due to the failure of the customer to authorize replacement of any element of special construction. The period during which no credit allowance will be made begins on the seventh day after the customer receives the Company's notification of the need for replacement and ends on the day after the Company receives the customer's authorization for replacement.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

n. Service Interruption (Continued)

(2) A Credit Allowance Does Not Apply for: (Continued)

- (g) Service interruptions during periods when the customer elects not to release the service for testing and/or repair.
- (h) Service interruptions during periods when the customer or user has released the service for rearrangement purposes or for the implementation of a customer order.

o. Application of Rates and Charges

(1) First and Additional Nonrecurring Charges for Ports

- (a) The First Nonrecurring Charge applies to the first of each port type and speed installed at a node. The Additional Nonrecurring Charge applies for each additional port of the same type and same speed added at the same node on the same order. For example, if a customer places an order for ten (10) GigE3 Ports at the same OC48 node, one First Nonrecurring Charge and nine Additional Nonrecurring Charges will apply for the GigE3 Ports
- (b) The application of the First and Additional port installation charges will vary depending on: (i) whether the port is a Storage Interface Port ("SIP") or an DSR Port that is not a SIP ("Other Port"), (ii) whether the port is purchased on a month-to-month basis ("MTM") or under term plan pricing ("TPP"), and (iii) whether the installation is an initial installation or a subsequent installation. A "subsequent installation" is an installation of new ports at a location where other ports, of the same type and speed, were previously installed. Specifically, the rates will be applied as follows:

For SIPs:

- (A) MTM: First and Additional charges apply in all cases.
- (B) TPP: No installation charges apply.

For Other Ports:

- (A) MTM: First and Additional charges apply in all cases.
- (B) TPP: First and Additional charges apply to subsequent installations but not to initial installations.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

o. Application of Rates and Charges (Continued)

(1) First and Additional Nonrecurring Charges for Ports (Continued)

- (c) Changes in Month-to-Month billed ports or changes in term plan billed port nodes, are treated as disconnects and subsequent installations for which subsequent nonrecurring charges apply.
- (d) Nonrecurring charges for DSR nodes apply to all nodes and port nodes installed subsequent to the initial installation of DSR.
- (e) A Channel Mapping nonrecurring charge as set forth in Part B, Section 18 of this Product Guide applies for each channel which the Company must map over the partial ring. Channel mapping is only required on channels that originate at and terminate to devices that are not within the partial ring.
- (f) When a lower capacity service is dropped from a DSR Ring, the associated ports will be billed to the lower capacity service. Lower capacity services may not be dropped at locations utilizing a pass-through interface. However, a Channel Mapping Charge will apply for each lower capacity service that originates at and terminates to devices that are not within the partial ring provided by the Company. The Channel Mapping Charge is billed to the lower capacity service.
- (g) When a lower capacity service is provided between two (2) separate asymmetric port facilities (APF) on the same DSR, the Company must map the facility assignment on the first APF to the facility assignment on the second APF for which an Asymmetrical Port Mapping Nonrecurring Charge applies per lower capacity service mapped.
- (h) Nonrecurring charges apply for the installation of an Optional Feature as described in Part B, Section 18 of this Product Guide.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

4. Terms and Conditions (Continued)

o. Application of Rates and Charges (Continued)

(1) First and Additional Nonrecurring Charges for Ports (Continued)

- (i) A single Dual Node Cross-connect Charge applies per lower level service provided across the interconnecting port nodes of a subtending ring(s) configuration, regardless of the number of subtending rings involved. Dual Node Cross-connect Charges as set forth in Part B, Section 18 of this Product Guide apply for each channel which the Company must cross-connect between the port nodes of the interconnecting ring(s).
- (j) When a node is disconnected prior to the end of the commitment period, the node is subject to termination liability under M.4.k. preceding.
- (k) Changes from OC12 to OC12/3 and OC12/3 to OC12 Nodes are treated as upgrades. Subsequent installation nonrecurring charges are applicable.
- (l) Where an Ethernet, Fiber Channel, or FICON signal is mapped to a SONET service, and that SONET service is provided in a symmetrical port arrangement, two (2) OCn ports apply (one where the mapped signal enters the ring and one where the mapped signal exits the ring).
- (m) Where one or more Ethernet, Fiber Channel or FICON signals are mapped to a SONET service, and that SONET service utilizes an asymmetrical port combination (e.g., the signals enter the ring mapped to an OC12 SONET service and exit the ring via an OC48 port associated with an asymmetrical port facility), only one OCn port applies per mapped signal to enter the ring and the signal exits the ring over the asymmetrical port facility. The total number of such mapped Ethernet, Fiber Channel, or FICON signals that can be associated with the OCn Port of the asymmetrical port facility is limited by the STS1 capacity required to map each signal into the SONET service. For example, assume that an OC48 APF is ordered for which an OC48 port, OC48 mileage, and, when applicable, an OC48 Extension applies (an OC48 has a capacity of 48 STS1s). Further assume that two (2) Ethernet 600 Mbps Ethernet-to-SONET mapped services are ordered, each of which requires 6 STS1s when mapped into an OC12 SONET signal. In this example, the OC48 asymmetrical port arrangement would still have 36 available STS1s.
- (n) Changes in Month-to-Month billed asymmetrical port facilities are treated as disconnects and subsequent installations.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

5. Optional Feature

Customer Service Management (CSM)

- a. Customer Service Management (CSM) provides a customer with real-time information about the operational status of its DSR network. Three (3) Service Levels of support are offered for CSM. Each Service Level provides different functionalities to which the customer may gain access. These functionalities are described following and include access to real-time information about the customer's DSR network and the ability to generate reports. When ordering CSM, the customer must specify the level of CSM support as one of the following three (3) Service Levels:
 - (1) Level 1 - provides a network view of real-time detection and reporting of network alarm conditions within the customer's DSR network.
 - (2) Level 2 - provides the same capabilities described in Level 1 along with the ability for the customer to generate basic network performance reports for its DSR network. The customer may also request network performance reports that are customized to meet their specific needs.
 - (3) Level 3 support provides the same support described in Levels 1 and 2 along with the ability to reconfigure (re-map) the end points of lower level services riding the ring.
- b. Reconfiguration using CSM consists of re-mapping the end point of a primary circuit to its preplanned (backup) port location. The customer must specify a preplanned port location for each primary circuit installed. The preplanned port location is a backup location that is activated and de-activated when a primary circuit is reconfigured at the request of the customer via the CSM platform. A reconfiguration is limited to the mapping of one primary circuit to its assigned preplanned location. For each preplanned port location, a monthly recurring rate and a nonrecurring installation charge apply per port in accordance with Part B, Section 18 of this Product Guide. When the primary circuit and preplanned port are part of a Shared Network Arrangement, the Service User's Letter of Authorization for the Shared Network Arrangement, see PSC NY No. 11, Section 6.7.13, must include an acknowledgment that the Host Customer has the ability to perform CSM functions (e.g., reconfiguration) on the portion of the Service User's service that rides the DSR.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

5. Optional Feature (Continued)

Customer Service Management (CSM) (Continued)

- c. A Company Performed Reconfiguration charge, as set forth in Part B, Section 18 of this Product Guide, will apply when the customer requests that the Company perform a reconfiguration of service on its behalf. This charge does not apply when a customer performs its own service reconfiguration.
 - (1) Reconfiguration is not permitted on services arranged in the following service configurations:
 - (a) Switched Access Service;
 - (b) service provided under a shared use arrangement;
 - (c) service associated with Centrex-CO or Primary Rate ISDN service;
 - (d) primary circuits for which the customer has not specified a preplanned backup location; or
 - (e) Fibre Channel/FICON service.
- d. The type of nodes deployed within the DSR network may limit reconfiguration of OC12/OC12c circuits within an OC48 DSR. CSM is not available on partial ring configurations.
- e. When CSM is added to an existing ring, existing circuits that are being made reconfigurable will require that an Access Order be issued to designate the circuit as reconfigurable. Nonrecurring charges may apply. The Company's ability to provide CSM on a particular ring may be limited by the overall configuration of that ring. Reconfiguration is limited to those circuits that originate and/or terminate on the ring (i.e., at locations served by a node on the ring) and utilize ports that are symmetrical. For circuits that originate or terminate off the ring (i.e., at locations not served by a node on the ring), the reconfiguration is limited to customer premises node locations on the ring.
- f. Application of Rates and Charges - CSM rates and charges are set forth in Part B, Section 18 of this Product Guide. CSM rates and charges apply in addition to any applicable DSR rates and charges. Unless otherwise indicated below, CSM rates and charges apply regardless of the Service Level selected by the customer.
 - (1) Monthly Recurring Charges - A CSM Service Level monthly recurring charge applies for each DSR ring provided with CSM.
 - (2) Nonrecurring Charges - Apply as follows:
 - (a) A Node Setup charge applies for each node that is equipped with CSM at the time that CSM is initially established on the ring.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

5. Optional Feature (Continued)

Customer Service Management (CSM) (Continued)

f. Application of Rates and Charges (Continued)

(2) Nonrecurring Charges - Apply as follows: (Continued)

- (b) An Add/Remove Node charge applies for each node that is subsequently added to, or removed from, a ring that has already been equipped to provide CSM.
- (c) An Initial CSM Setup charge applies for establishment of the customer's initial CSM database partition. The initial CSM database partition includes setup for up to six (6) users.
- (d) A Setup of Additional Users charge applies for the setup of up to six (6) additional users beyond those provided with the initial database setup when CSM is initially established on the ring.
- (e) A Setup of Additional Partition or Change in CSM Service Level charge applies for the setup of an additional CSM database partition created for the same customer or to change from one CSM service level to another (e.g., change Service Level 1 to Service Level 2). Each additional CSM database provides for the setup of up to six (6) additional users.
- (f) A Consultation and Support charge applies for each thirty (30) minutes or fraction thereof, that the customer requests Company consultation and support of its CSM network. This charge does not apply during initial setup of CSM on the ring.
- (g) A Company Performed Reconfiguration charge applies for Service Level 3 customers only when the customer requests that the Company perform a reconfiguration based on its pre-mapping instructions.
- (h) A Preplanned Port charge, applies for Service Level 3 customers only for each port associated with a preplanned location that is established during the initial establishment of CSM on the ring

g. Terms and Conditions

- (1) The customer must utilize Internet web access to connect its customer-provided terminal equipment to the Company's CSM management system. Access to the Internet and any associated rates and charges are the responsibility of the customer. The customer is also responsible for obtaining communications software that is compatible with the software the Company utilizes to provide CSM. The Company will work cooperatively with the customer to determine compatibility of its communications software.

LEASED CHANNELS

K. DEDICATED SONET RING SERVICE (DSR) (Continued)

5. Optional Feature (Continued)

Customer Service Management (CSM) (Continued)

g. Terms and Conditions (Continued)

- (2) CSM is provided only when the Company provides all nodes on the ring.
- (3) Subject to the restrictions set forth in Paragraph M.5.g.(4) below, CSM may be provided coincident with the installation of the associated DSR ring or may be added to an existing ring.
- (4) CSM Service Level is provided under a term plan of 3 years, 5 years, or 7 years, as described following.
 - (a) The duration of the term plan for CSM Service Level must be the same as the duration of the term plan for the DSR nodes provided with CSM. At the expiration of its 3, 5, or 7 year term plans for CSM Service Levels, the customer has the option of extending CSM Service Level with a coterminous end date as described in Paragraph M.5.g.(4)(b) below.
 - (b) The expiration date of each CSM Service Level added subsequent to the initial installation must be coterminous with the expiration date of the associated DSR service, provided that the addition is prior to the 21st month for a 3-year plan, prior to the 36th month for a 5-year plan, or prior to the 50th month for a 7-year plan. A CSM added after the aforementioned periods requires extension of the commitment period for the associated DSR service in accordance with this Section (A) preceding. Such extension results in the establishment of a new plan that includes both the DSR and the CSM under the same plan with the same expiration date.
- (5) With Service Level 2 support, the customer may retrieve certain basic reports containing performance-monitoring information on its DSR network, as designated and provided by the Company. Basic reports are available at no additional charge to the customer. The customer may also request that a report be customized to meet its particular needs. Customized reports are provided on a special assembly basis. Reports are not provided with Level 1 support.
- (6) CSM is subject to termination liability if CSM is removed prior to completion of the existing commitment period. The terms and conditions set forth in Paragraph M.4.h. preceding, as applicable, apply to removal of CSM prior to completion of the existing commitment period.

6. Rates and Charges

For rates and charges, see Part B, Section 18 of this Product Guide.

LEASED CHANNELS

L. SONET POINT-TO-POINT

1. General

SONET Point-to-Point Service (SPTP) provides high speed, synchronous optical fiber-based, full duplex data transmission capabilities. SPTP is provisioned over the Company's SONET network and provides customers with SONET-based broadband transport with the following capabilities:

OC3, OC3c or STM – 1 Transmission services operating at the bit rate of 155.52 Mbps.

OC12, OC12c Transmission services operating at the bit rate of 622.08 Mbps.

OC48, OC48c Transmission services operating at the bit rate of 2.488 Gbps.

OC = Optical Carrier; STM = Synchronous Transport Mode

2. Description

SPTP provides transport at the optical level between a customer's locations or between a customer's premises and a Company wire center, where it connects with another service of equal speed.

SPTP is transported over a shared network infrastructure and remains optical throughout the path. Depending on the service rate (payloads consisting of 3, 12, or 48 separate Synchronous Transport Signals (STS1s) with OC3, OC12, or OC48), separate overheads are transported. SPTP service is also offered in a concatenated format (one single channel with one single overhead) at service rates of OC3c, OC12c, and OC48c.

The same payload content is maintained throughout the service (i.e. if DS1s are mapped by the customer at one end, DS1s must be mapped at the other end of the service). SONET equipment is required throughout the circuit.

SPTP is available at month-to-month, and 3-year and 5-year term pricing plans. A 12-month minimum billing period applies. Month-to-month, 3-year and 5-year term pricing plan rates are not fixed and will vary based upon the rates in effect in the Part B, Section 18 of this Product Guide.

The technical specifications for SPTP Service are delineated in Technical Reference GR-253-CORE, Issue 3. When provided with Synchronous Transport Module (STM-1) transmission, the technical specifications are delineated in Technical References ITU G707, ITU G708 and ITU G709.

LEASED CHANNELS

L. SONET POINT-TO-POINT (Continued)

2. Description (Continued)

SPTP services may be configured as follows:

OC3	3 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are Virtual Tributary (VT) mapped - an STS1 channel without constraint to payload mapping
OC3c	A single concatenated STS3c channel
STM1	Synchronous Digital Hierarchy (SDH) channel of 155.52 Mbps
OC12	12 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are VT mapped - an STS1 channel without constraint to payload mapping
OC12c	A single concatenated STS12c channel
OC48	48 STS1 channels each of which may consist of: - a DS3 that is STS1 mapped - up to 28 DS1s that are VT mapped - an STS1 channel without constraint to payload mapping; or 16 separate concatenated STS3c channels; or 4 separate concatenated STS12c channels; or - any combination of the above configurations up to the total OC48 capacity

3. Terms and Conditions

- a. All rate elements associated with an SPTP service that is provided on a point-to-point basis between customer designated premises must be in the same rate plan.
- b. When SPTP is ordered with STM transmission, both of the customer-designated premises must use STM transmission.

LEASED CHANNELS

L. SONET POINT-TO-POINT (Continued)

3. Terms and Conditions (Continued)

- c. SPTP is deployed upon customer request, and is available based on negotiated installation intervals. Where suitable SONET facilities are not available, special construction rates and charges may apply.
- d. The customer must provide, at no cost to the Company, suitable and secure space, suitable environmental conditions and uninterrupted power supply, building entrance facilities and conduit for placement of the facilities and network equipment at its locations as necessary to provide the service.
- e. SPTP services, which are provided on a month-to-month basis, are subject to a one-year minimum service requirement. If service is disconnected during the first year, the minimum period charge is 100% of the monthly rate from the date of disconnection through the end of the first year.
- f. SPTP services which are provided under 3-year or 5-year term plans are subject to termination liability if service is disconnected prior to the end of the term plan.
- g. Termination Liability
 - 1. If the disconnect occurs during the first year of service, termination liability is calculated at 100% of the monthly charges for the unexpired portion of the first year, and at 15% of the monthly charges for the remainder of the term plan.
 - 2. If the disconnect occurs after the first year of service, termination liability is calculated at 15% of the monthly charges from the date of disconnection through the remainder of the term plan.
 - 3. Termination liability will not apply:
 - (a) When cancellation of the SPTP service occurs within thirty-days of the effective date of a Company initiated rate increase and the customer's total monthly rate for the affected service increased by 8% or more;
 - (b) When the service is changed to a longer SPTP term plan;
 - (c) When the service is changed to an SPTP service of a higher bit rate with a new, equal or longer, term plan; or,
 - (d) When the service is converted to Enhanced Dedicated SONET Service.

LEASED CHANNELS

L. SONET POINT-TO-POINT (Continued)

3. Terms and Conditions (Continued)

g. Termination Liability (Continued)

3. Termination liability will not apply: (Continued)

(e) Moves

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if all services subject to the Service Discount Plan are ordered moved to a new location.

(f) Replacements

A customer subscribing to a Service Discount Plan will not incur a termination liability charge if, upon cancellation of a service provided under a Service Discount Plan, the customer places a new or existing service of the same type not covered under a discount plan under the terms and conditions applicable to the disconnected service. The orders to disconnect the service and substitute the existing non-discounted service under the Service Discount Plan must be placed with the Company within sixty (60) days of each other.

(g) Rearrangements

Service rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements or a change in the physical location of the point of termination at a customer designated premises. Changes which result in a change in the minimum period requirements are treated as discontinuances of existing service and installations of new service. Changes in the physical location of the point of termination at a customer designated premises are treated as moves.

The charge to the customer for the service rearrangement is dependent on whether the change is administrative only in nature or involves actual physical change to the service.

LEASED CHANNELS

L. SONET POINT-TO-POINT (Continued)

3. Terms and Conditions (Continued)

g. Termination Liability (Continued)

3. Termination liability will not apply: (Continued)

(g) Rearrangements (Continued)

Administrative changes, as follow, will be made without charge(s) to the customer:

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

h. Expiration— At the expiration of a 3-year or 5-year term plan, the rates for the expiring term plan will continue until the customer either cancels service or orders a new plan.

i. A change in port or channel termination will be treated as a discontinuance of the existing service and an installation of a new service. All associated nonrecurring charges will apply for the new service. A new minimum period will be established for the new service. The customer will also be responsible for all outstanding minimum service period obligations associated with the disconnected service.

j. Credit Allowance

1. Any single service outage of four hours or more due solely to a Company facility failure will result in a credit of 100% of the monthly rate for the applicable rate elements affected, provided that the interruption is brought to the attention of the Company within 10 days. The total credit allowance in any one billing period cannot exceed 100% of the customer's monthly rate for the affected rate elements, regardless of the number or length of service interruptions within a billing month.

2. Credit allowance does not apply for:

- (a) Service interruptions of less than four hours;
- (b) Service interruptions caused by the negligence of the customer or authorized user;

LEASED CHANNELS

L. SONET POINT-TO-POINT (Continued)

3. Terms and Conditions (Continued)

j. Credit Allowance (Continued)

2. Credit allowance does not apply for: (Continued)

- (c) Service interruptions resulting from the failure of equipment or systems provided by the customer or authorized user;
- (d) Service interruptions during any period in which the Company is not afforded access to premises for testing and/or repair of service;
- (e) Service interruptions when the customer has released the service to the Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer prior to the release of that service;
- (f) Service interruptions that continue due to the failure of the customer to authorize replacement of an element of special construction; or.
- (g) Service interruptions during periods when the customer elects not to release the service for testing and/or repair.

4. Application of Rates and Charges

a. Monthly Recurring Charges— Apply to Local Distribution Channels (LDCs) and Channel Mileage (Fixed and Per Mile) rate elements.

- 1. Local Distribution Channels— The LDC rate element combines the Channel Termination and port (protected or non-protected) to provide the single LDC Charge. LDCs apply to that portion of the SONET Point-to-Point Service connecting two specific customer locations or connecting a customer location to the Company's serving wire center. Typically, a LDC is found at each end point.
- 2. Channel Mileage—. The calculation of this charge is based on a fixed mileage component and per airline miles between two serving wire centers.

b. Nonrecurring Charges— Apply to Local Distribution Channels (LDCs) only.

5. Rates and Charges

For rates and charges, see Part B, Section 18 of this Product Guide.