

Verizon New England Inc.

2. SUPERPATH® 1.544 Mbps Digital Service

Rates and charges for services explained herein are contained in Part M, Section 3, Service Charges referred to herein are explained in Part A, Section 3 and contained in Part M, Section 1.

2.1 General

2.1.1 Definitions
Bit —The smallest unit of information in the binary system of notation.
Channel Service Unit Functionality —Equipment which performs the function of proper termination of a circuit, regeneration of signals, recognition and correction of signal format errors, and remote loopback.
Confirmed Due Date —The date on which work activity is scheduled to be completed by Verizon and for which the service is available for use by the customer. The confirmed due date is provided by Verizon to the customer once the availability of Verizon facilities has been authorized.
DS1 to Digital Multiplexer —A service provided by Verizon at central offices, designated as multiplexing hubs, that converts a 1.544 Mbps channel to 24 channels for use with digital private line service.
DS1 to Voice Multiplexer —A service provided by Verizon at central offices, designated as multiplexing hubs, that converts a 1.544 Mbps channel to 24 channels for use with voice grade service.
Intermediate Hub —A wire center that provides multiplexing which can serve itself and one or more wire centers within the Local Access and Transport Area (LATA). In this intermediate hub (wire center) a 1.544 Mbps channel can be multiplexed and the individual channels terminated at customer designated premises located within the local serving area of that wire center. Individual channels can be extended through any designated wire center(s) subtending the intermediate hub within the LATA to terminate at customer designated premises located within the local serving area of each wire center.
Interoffice Channel —A 1.544 Mbps path for digital transmission between central offices.
Local Distribution Channel —A 1.544 Mbps path for digital transmission between the customer's premises and the serving central office.
Multiplexing —The act of combining a number of individual message circuits for transmission over a common transmission path.
Multiplexing Hub —A Verizon designated central office at which the multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.
Served Direct Intraexchange Channel —A path for digital transmission between the customer's premises located on the same cable feeder route, less than 3,500 cable feet apart, and having no central office connection.

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Terminus Hub—A wire center in which a 1.544 Mbps channel can be multiplexed to 24 channels. A terminus hub serves only customers in the wire center in which the multiplexing is performed.

2.1.2 Availability

- A.** Served direct intraexchange channels are no longer available. Service arrangements for served direct intraexchange channels installed before July 23, 1989 are furnished to existing customers at present locations only in the same or lesser quantities.

2.1.3 Description

- A.** Superpath is provided on a two point basis only between the following locations.
- 1.** Customer designated premises
 - 2.** A customer designated premises and a Verizon designated central office
 - 3.** Verizon designated central offices.
- B.** Superpath is provided only where facilities are available and is subject to the technical limitations of the digital equipment used by Verizon as set forth in the PUB 62411 and TR-NPL-000054.
- C.** Superpath consists of two point digital channels and equipment which provide for simultaneous two-way transmission of serial, bipolar, return to zero, digital signals at a transmission speed of 1.544 Mbps.
- D.** Superpath is designed to provide an average performance of at least 98.75% error-free seconds of transmission measured over a continuous 24 hour period.
- E.** Superpath is furnished on a full-time basis, 24 hours a day, seven days a week.
- F.** **Central Office (CO) Multiplexing** may be provided from suitably equipped multiplexing hubs. The customer is responsible for the assignment of individual channels within the multiplexer and for maintaining records of those assignments. Customer provided multiplexing equipment must conform with the electrical requirements for channel units specified in PUB 43801 and CB 119.
- 1.** The 1.544 Mbps channel is provided with a local distribution channel(s) and an interoffice channel, local distribution channels only, or, an interoffice channel between two Verizon designated central offices.
 - 2.** The central office multiplexing capability is provided by a central office multiplexer at designated multiplexing hubs which converts a 1.544 Mbps channel to 24 channels for use with voice grade services and/or analog data services or to 24 channels for use with digital services.

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2.1 General

2.1.4 Service Functions

Service functions are optional features or arrangements that are available for use with Superpath Digital service.

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| A. | Central Office Multiplexing DS1 to Voice allows for up to 24 individual voice grade or analog data private lines on a channelized basis for use with a 1.544 Mbps circuit. This function is offered for the same customer at multiplexing hubs. The voice grade private lines provided are as follows. <ol style="list-style-type: none"> 1. Private line analog data 2. Private Branch Exchange (PBX) 3. Stations Off-Premises (SOPs) 4. PBX tie lines 5. Centrex tie lines 6. SOPs and foreign exchange |
| B. | Central Office Multiplexing DS1 to Digital allows for up to 24 individual digital private lines to be derived from a 1.544 Mbps circuit. This function is offered for the same customer at multiplexing hubs. |
| C. | Clear Channel Capability (CCC) provides a bipolar with eight zero substitution (B8ZS) encoding technique that allows a customer to transport 1.536 Mbps information rate signals over a Superpath 1.544 Mbps circuit with no constraint on the quantity or sequence of ones (mark) and zero (space) bits. This arrangement allows customers to derive 64 kbps clear channels. This service is provided only on Superpath 1.544 Mbps digital service between two customer designated premises and is subject to the availability of facilities. This arrangement requires that customer provided multiplexing equipment to be compatible with the B8ZS line code as specified in TR-NPL-000054 and PUB 62508. |
| D. | Alternate Serving Wire Center provides Superpath 1.544 Mbps Digital service over an alternate route to a suitable equipped serving wire center other than that normally serving the customer's designated premises. This option is not available at all locations and where available Verizon will designate the serving wire center to be used. <ol style="list-style-type: none"> 1. The mileage used to determine the monthly rate for distance sensitive local distribution channels required with this option is based on the airline distance directly between the customer's designated premises and the normal serving wire center for that premises as described in Section 2.3.2A. The mileage used to determine the monthly rate for interoffice channel mileage is based on the normal serving wire center associated with the customer's designated premises as described in Section 2.3.2B. |

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2.2 Responsibility of Verizon

2.2.1 Service Provisioning Warranty
A. Verizon assures that when a customer orders Superpath, service will be installed and available for customer use no later than the confirmed due date. The failure of Verizon to meet this confirmed due date will result in the credit of all applicable Superpath nonrecurring charges for the local distribution channel, and central office multiplexer associated with the missed commitment. The nonrecurring charges will be credited at the rate at which they are billed.
B. The following service configurations are subject to the provisioning warranty. 1. Superpath provided on a two point basis between customer designated premises 2. Superpath provided between a customer designated premises and a Verizon hub where central office multiplexing is performed. The derived services associated with central office multiplexing are not included in the warranty.
C. The service provisioning warranty does not apply under the following situations. 1. When the customer requests an expedited due date 2. When other telephone companies are involved in the installation 3. When the customer premises is inaccessible 4. When the customer changes interface requirements 5. When the customer is not ready to accept service 6. When building facilities are not ready (including space, cable support structures, building risers and entrance facilities to be provided by the building owner or his subcontracted vendors) 7. When the customer orders termination beyond the network interface 8. When the customer requests service rearrangements; or moves within the same building 9. When special construction is required to provision service 10. When the delay is caused by work stoppage, civil disturbances, criminal actions; or by fire, flooding or other occurrences attributed to an Act of God 11.

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2.2 Responsibility of Verizon

2.2.2 Performance Plus Maintenance Warranty Program	
A.	Interruption of Service— When service is interrupted for one minute or more a one month credit allowance will be made for service, provided that the interruption is brought to the attention of Verizon within ten days. For the purpose of determining the amount of allowance, every month is considered to have 30 days.
1.	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.	For point-to-point service, the credit allowance will apply to the local distribution channel(s) and the interoffice channel.
3.	For central office multiplexed circuits, the credit allowance will apply as follows.
4.	If the 1.544 Mbps circuit and/or the central office multiplexer is inoperative, the credit allowance will apply to the local distribution channel, the interoffice channel, and the multiplexer. The allowance for interruption of private line service will apply to those derived private line channels so affected.
5.	If the central office multiplexer derived channel is inoperative the allowance for interruption of private line service will apply to those derived private line channels so affected. The credit allowance will not be applied to the 1.544 Mbps rate element.
B.	No credit allowance will be made for the following interruptions to service.
1.	Service interruptions of less than one minute
2.	Service interruptions caused by the negligence of the customer or authorized user
3.	Service interruptions resulting from the failure of equipment provided by the customer or authorized user
4.	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 Verizon's notification of the need for replacement and ends on the day after Verizon receives the customer's authorization for replacement
5.	During periods when the customer elects not to release the service for testing and/or repair
6.	During periods when the customer or user has released the service for rearrangement purposes or for the implementation of a customer order.

Effective: January 1, 2015

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2.3 Terms and Conditions

2.3.1 Minimum Period

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| A. | The minimum service period is three months |
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2.3.2 Determination of Mileage

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| A. | Mileage used to determine the rate for a local distribution channel is the airline distance measured, in increments of 1/2 mile (a fractional 1/2 mile increment being considered as a full 1/2 mile increment), directly between the customer's premises and the serving central offices. |
| B. | Mileage used to determine the rate for a 1.544 Mbps interoffice channel is the airline distance measured, in one mile increments, directly between the serving central offices, between a serving central office and the Verizon multiplexing hub, or between Verizon multiplexing hubs. |

2.3.3 Application of Rates and Charges

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| A. | Service Charges apply as appropriate, in addition to the nonrecurring charges for service. |
| B. | Interoffice Channels— For basic service interoffice channels when the interoffice channel is installed without an associated local distribution channel, the nonrecurring charge applies, per interoffice channel. |
| C. | Optional Features <ol style="list-style-type: none"> For central office multiplexing DS1 to Voice, rates and charges for voice grade connections from the central office multiplexer for Private Line Types 2001A, and 2001B include signaling arrangements. Rates and charges for conditioning for Private Line Series 3000 analog data voice grade connections are explained in Part B, Section 2. Rates and charge for voice grade connections from the central office multiplexer to a customer premises or a foreign exchange service in a different serving central office are provided as Private Line Series 2000 and 3000 channels. For central office multiplexing DS1 to Digital, rates and charges apply for digital private line connections from the central office multiplexer to a customer premises. Central office multiplexing non-OPP monthly rates are only available to existing customers at their present location in the same or lesser quantities and are no longer available to customers ordering central office multiplexing after August 15, 1997. |

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2.3.3	Application of Rates and Charges
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| D. | The local loop component SuperPath 1.544 Mbps Service may be purchased under the terms and conditions of Integrated Access Service, as described in Part C, Section 6 of this Product Guide. In such cases, Integrated Access Service local loop transport will be provided in lieu of a SuperPath Service Local Distribution Channel, and may be connected to a SuperPath Service LDC, a SuperPath Service Interoffice Channel, other IAS local loop transport, or other services, as required, to provide a complete service. The monthly rates and charges for a SuperPath Service LDC will apply. |
| E. | When a customer selects the Integrated Access Service Transport Package 1, 2, or 12 service delivery option, as specified in Part C, Section 6 of this Product Guide, the rates and charges for the Integrated Access Service Transport Package 1, 3, or 12 Local Distribution Channel will apply in lieu of the rates and charges for the SuperPath Service LDC. |

2.3.4	Variable Term Payment Plan (VTPP)
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| A. | This plan may not be combined with any bulk billing payment plans. |
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2.3.4 Variable Term Payment Plan (VTPP)
B. The monthly rates and nonrecurring charges for Superpath are offered under the VTPP as described herein and in Part A, Section 1. The VTPP monthly rates and nonrecurring charges are payable over the following Optional Payment Periods (OPP) as selected by the customer. The month-to-month, 36 months or 60 months OPPs are available to all Superpath customers. Only the local distribution channels, interoffice channels, central office multiplexing arrangements, and the alternate serving wire center optional feature are eligible for the OPPs of month-to-month, 36 month or 60 months. 1. The available OPPs for Superpath monthly rates are month-to-month, 36 months and 60 months. 2. The available OPPs for Superpath nonrecurring charges are 36 months and 60 months. a. When a customer selects the nonrecurring charge 36 or 60-month OPP, their NRCs reflect a 50% reduction. The total number of nonrecurring charges included in an OPP may not exceed the total number of local distribution channels included in the OPP. b. The OPP selected for the nonrecurring charges must be the same as the OPP established for monthly rates. c. An OPP may not be established only for nonrecurring charges. The monthly rates for the channels which incurred the charges must also be included.
C. Termination Liability— If a customer terminates service or cancels an OPP before the expiration of a commitment period the customer is subject to a termination liability charge. If a customer terminates service prior to a minimum service period, the minimum service period charges also apply, in addition to the discounted monthly rates for each local distribution channel, for the interoffice channels, for each central office multiplexing arrangement, and for the alternate serving wire center optional feature. The termination charges applicable to Superpath are dependent upon the payment period selected by the customer (refer to Exhibit 2.3.4-1). 1. The present value of the outstanding OPP monthly rate is determined in accordance with the principle of the time value of money at an effective interest rate of .99384% monthly. 2. When a customer disconnects some or all discounted channel in order to replace them with other Verizon provided channels the appropriate minimum service period charges would apply. The termination liability does not apply provided that the orders for the new channels and the disconnect of the existing channels are placed with Verizon at the same time and the new channels have an equal or higher channel capacity than the disconnected channels and the term plan of the new service should be of equal or greater length than the remaining commitment period of the service being disconnected.

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2.3.4 Variable Term Payment Plan (VTPP)	
C. (Continued)	
3.	A customer may, at any time prior to the expiration of the selected payment period for an existing OPP, change to an OPP with a longer payment period at the then effective discount. No termination liability charges will apply for any services extended under the longer commitment period. The monthly rates applicable for the longer commitment period will apply effective with the next bill day following the request for the change.
D.	Expiration— At the end of the payment period, the customer will have the option of subscribing to any then effective discount plans or retaining the service under the standard rates in effect at the time. If the customer does not notify Verizon of its choice, standard rates will be applied upon expiration of the payment period.
E.	Transfer of Service will not be provided.
F.	New (increased) rates for 36 and 60 month OPPs may be introduced by Verizon under a new vintage which would supersede the earlier vintage of rates. Superseded vintage rates apply only for the services ordered or installed under such rates for the duration of the OPP.
G.	Vintage I rates apply to OPPs established before October 15, 1996. Vintage II rates apply to OPPs established on or after October 15, 1996.

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2.3.4 Variable Term Payment Plan (VTPP)		
Exhibit 2.3.4-1 VTPP Termination Charges by Payment Period		
Payment Period		Termination Charges
Monthly Rates	Month-to-Month	None
	36 months	50% of the present value of the remaining monthly payments
	60 Months	50% of the present value of the remaining monthly payments
Nonrecurring Charges	36 Months	100% of the present value of the remaining monthly payments
	60 Months	100% of the present value of the remaining monthly payments

2.3.5 SUPERPATH® 1.544 Mbps Digital Service - DS0 to DS1 Upgrade		(N)
DS0 to DS1 Upgrade is only available to existing Verizon customers who are upgrading an existing DS0 service to a SUPERPATH® 1.544 Mbps Digital Service. Except as otherwise provided in this Section 2.3.5., the regulations applicable in sections 2.1.1 – 2.3., of this Section apply. Customers that purchase this service cannot make moves or adds subsequent to the initial upgrade as described in A.2.b. and continue to receive the special pricing.		
A. Description		
1.	The 1.544 Mbps channel is provided as a single, flat rated, transport service. Verizon Central Office (CO) multiplexing and alternate serving wire center options are not available for SUPERPATH® 1.544 Mbps Digital Service - DS0 to DS1 Upgrades.	
2.	SUPERPATH® 1.544 Mbps Digital Service - DS0 to DS1 Upgrade is provided on a two point basis only between a customer designated premises and customer designated premises.	
a.	Customer premise to wire center is not permitted. DS1 as a derived circuit from a higher level facility is not permitted.	
b.	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.	
3.	Superpath 1.544 Mbps Digital Service – DS0 to DS1 Upgrade requires a one for one replacement, one DS0 circuit for one DS1 circuit and disconnection of the existing DS0 service.	
B. Minimum Period	— The minimum service period is one month.	
C. Application of Rates and Charges		
1.	Service Charges apply as appropriate.	
2.	Flat rate transport — The service is provided as flat rate, transport from premise to premise. Inclusive of this flat rate, the customer will receive a channel termination at each designated customer location -- for a total of two channel terminations -- as well as any Inter-Office Facility Mileage which may apply.	
		(N)