

New England Telephone and Telegraph Company

17. Packet Switching Service
17.1 Description

Rates and charges for services described herein are contained in Section 30.17. In addition the charges specified in other sections of this tariff apply as appropriate.

17.1.1 General	
A.	Packet switching provides data transport through a packet network which usually involves relatively short bursts of data. The data are separated into discrete segments called packets for high speed transmission through the packet network. A packet network consists of the following major components.
1.	Access concentrators which aggregate traffic from multiple customers onto the packet network.
2.	Packet switches which perform routing and interfacing functions for the packet network.
3.	Network facilities which interconnect the access concentrators and packet switches enabling packets to be transmitted throughout the packet network.
B.	Infopath packet switching service is described in Sections 17.2.1, 17.2.2 and 17.2.3. (C)
C.	Customer provided data terminal equipment used in conjunction with packet switching services shall conform with the interface specifications as described in NTR-74250 (X.25 Protocol), TR-TSY-000461 (X.75 Protocol) and NTR-74252 (Asynchronous Protocol) . (C)

17.1.2 Network Access	
A.	Infopath— The Infopath packet switching network is accessed through a port on either an access concentrator or a packet switch.
1.	Customers with low to medium throughput transmission requirements access the network through a port on an access concentrator at data rates of up to 9.6 kbps.
2.	Customers with high throughput transmission requirements access the network through a port on a packet switch at data rates of 9.6 or 56.0 kbps.
B.	(D)
1.	(D)
2.	(D)

Verizon New England Inc.

17. Packet Switching Service
17.1 Description

17.1.3 Network Address	
A.	Each port includes one network address which is a ten digit DTN that identifies the logical channels on a port.
1.	For Infopath packet switching service, additional network addresses may be ordered under the multiple network address optional features. The first network address established per port will be designated as the primary network address. Additional network addresses at the same customer designated premises will hunt with the primary network address. Hunting enables the customer to achieve maximum call connection efficiency.

17.1.4 Service Configuration	
A.	Switched Virtual Circuit configurations are standard for Infopath packet switching and utilize a temporary switched data connection which permits an end user to establish a call to another point on the network.
B.	Permanent Virtual Circuit configurations are optional for Infopath packet switching service. PVCs provide the customer with the electronic equivalent of a private line between two port connections, which must be specified by their network address at the time of subscription. While no physical circuits are dedicated, the two network addresses are connected electronically to form a PVC.

17.1.5 Provision of Service	
A.	Packet switching service is provided where suitable facilities are available as specified in NECA Tariff FCC No. 4.
B.	This service will be furnished only when the customer has subscribed to an adequate number of port connections or logical channels as established by the Telephone Company to accommodate the service requested (i.e., originating, terminating or two-way calling) without impairing the network.
C.	Where construction of facilities is required, the provisions of DTC MA No. 16 are applicable.

(T)

17.1.6 Minimum Periods	
A.	The minimum period for which service is furnished and for which charges are applicable are specified in Sections 2.2.5 and 3.1.

17.1.7 Modification and/or Cancellation of Service	
A.	When an application for service is cancelled or changed in whole or in part by or on behalf of the applicant prior to completion of construction and installation, the general regulations contained in Section 3.1.3 and 3.1.4 apply.

New England Telephone and Telegraph Company

17. Packet Switching Service**17.1 Description**

17.1.8	Service Interruptions
A.	For a failure of packet switching service port, credit will be applied according to Section 4.2.1.

17. Packet Switching Service**17.2 INFOPATH® Packet Switching Service**

17.2.1 General	
A.	Infopath packet switching service provides synchronous and asynchronous network transport of data through the network which usually involves relatively short bursts of data. The data are separated into discrete segments called packets for high speed transmission through the network. All packets are interleaved (statistically multiplexed) on the facilities as they are transmitted. These packets may contain up to 256 characters of data. Routing and control information (packet header) is automatically inserted at the beginning of each packet, and error detection information (packet trailer) is automatically inserted at the end of each packet.
1.	Error checking is performed on each packet as it is transmitted through the network. If a packet and/or format error is detected, the sending equipment is automatically instructed to re-transmit the message. A message may consist of a single packet or multiple packets. Complete with this information, the entire packet is routed through the network to its intended destination.
2.	Window size is the maximum number of unacknowledged packets allowed without confirmation of receipt. The Telephone Company will provide a default window size of two packets for each direction of transmission. To ensure compatibility with data terminal equipment, the customer may specify a window size from two up to seven packets for one or both directions of transmission
3.	Each switched virtual circuit and permanent virtual circuit configuration must be designated as having one-way logical channel incoming, one-way logical channel outgoing or two-way calling.

17.2.2 Synchronous Service	
A.	The components that apply to synchronous Infopath packet switching service are port connections, network usage and optional features.
B.	Port Connections— Each port connection comes with one logical channel. The technical specifications are defined under optional features in Section 7 for channels provided to the port connections. The port connections and protocols are:
1.	Access Concentrator Port Connection Synchronous (Low to Medium Throughput) provide the customer with dedicated access to a port on the access concentrator at transmission speeds of up to 9.6 kbps using voice grade, DDSII channels. This type of connection has both originating and terminating capabilities using X.25 and X.75 protocols. These protocols provide the capability of establishing multiple virtual communication links from the customer's premises through the packet switching network. The maximum number of logical channels available is thirty-two per port.

(D)

New England Telephone and Telegraph Company

17. Packet Switching Service
17.2 INFOPATH® Packet Switching Service

17.2.2 Synchronous Service	
B. (Continued)	
2.	Packet Switch Port Connection Synchronous (High Throughput) provides a direct connection between a customer's premises and a port on the packet switch via a special access voice grade or DDSII channel. This arrangement supports transmission speeds of 9.6 or 56 kbps. This connection has the capability of establishing multiple communication links from the customer's premises through the packet switching network and is available with either X.25 or X.75 protocol. The X.25 and X.75 protocols provide the capability of establishing multiple virtual communication links from the customer's premises through the packet switching network. The maximum number of logical channels available is, 127 channels per port at 9.6 kbps, and 511 channels per port at 56 kbps.
C.	Network Usage on the Infopath packet switching network (for Asynchronous and Synchronous service) is comprised of call set-up and packet transport. Usage charges may be billed to the originator or receiver of packets, as arranged for on each call. Packet switching network usage is aggregated per billing month. When more than 2500 kilopackets are transmitted in a billing month, rates are discounted. Call detail is provided as a chargeable optional feature.
1.	Call Set-Up initiates a request on a switched virtual circuit for the establishment of a virtual channel for the duration of the call. Call set-up is billed on a per call basis.
2.	Packet Transport provides for the routing of packets over the packet switching network. Usage charges are based on the number of packets transmitted (either sent or received while the call is on the Infopath packet switching services network). The minimum unit of billing is a kilopacket. For billing purposes, a packet consists of up to 128 characters of user data.
D.	Optional Features provide the customer with additional capabilities for interaction with the Infopath packet switching service network and should be selected by the customer at the time of subscription. NRCs do not apply when optional features are ordered in conjunction with the initial Infopath packet switching service. Charges will apply when optional features are ordered subsequent to the initial Infopath packet switching service. When optional features or software change options are requested subsequent to the initial service order, one or more optional features per port may be included, per service order for the one NRC.
1.	Additional Logical Channel allows the customer to simultaneously operate multiple channels on a single port.
2.	Closed User Group allows the customer to establish a sub-network among a restricted number of other users within the Infopath packet switching service network who can communicate privately with each other. Members of the closed user group may be designated as having incoming, outgoing or unrestricted access.
3.	Call Detail provides printed detail of each call billed to the customer for use of the Infopath packet switching service network. This option is available on either a continuous monthly basis or on a per request basis.

(D)

New England Telephone and Telegraph Company

17. Packet Switching Service

17.2 INFOPATH® Packet Switching Service

17.2.2 Synchronous Service	
D. (Continued)	
4.	Fast Select Request allows users data to be included in the call set-up request packet. This request is made on a per call basis and is billed on a per call basis which includes call set-up.
5.	Multiple Network Address allows a customer to subscribe to additional data terminal numbers in groups of ten. These numbers can be used with existing packet network connections and allow messages to be delivered to the customer's pre-specified destinations.
6.	Permanent Virtual Circuit is the electronic equivalent of a dedicated private line between two destination network addresses.
7.	Abbreviated Addressing allows the user to specify an alphanumeric code of up to sixteen characters that can be used in place of a data telephone number for easier customer access.
8.	Call Redirection is a data call forwarding capability that allows the customer to predefine one alternate destination to which calls will be redirected in the event of a failure or busy condition at the primary destination.

17.2.3 Asynchronous Service	
A.	Asynchronous transmission is a form of communications whereby each data character is individually synchronized by means of start and stop elements. Asynchronous service supports start-stop mode operation with ASCII codes at speeds up to 9.6 kbps. With asynchronous access, the access concentrator will perform a built-in Packet Assembler/Disassembler (PAD) function to convert the data into packets utilizing a common protocol (X.25) and route them through the network to the specified destination.
B.	The components that apply to asynchronous Infopath packet switching service are access concentrator port connections, network usage, and optional features.
C.	Port Connections
1.	Public Dial-In Access for originating calls only, is initiated by dialing an Infopath packet switching service network number via an exchange line. Applicable message unit and toll charges apply for each completed call to the Infopath packet switching service network access number. Public dial-in access supports asynchronous protocol and transmission speeds of up to 2.4 kbps. A Network User Identifier (NUI) code is required for log-on to the network if usage charges are to be billed to the originator. NUI is an alphanumeric code which identifies the user to the Infopath packet switching service network.

Verizon New England Inc.

17. Packet Switching Service

17.2 INFOPATH® Packet Switching Service

17.2.3 Asynchronous Service	
C. (Continued)	
2.	Private Dial-In Access is the same as the public dial-in access port connection except that it is dedicated to one customer and supports speeds of up to 9.6 kbps. Private dial-in access is initiated via a line which connects the end user to the central office circuit switch; the line may be any type which has dial up network exchange capability. A separate business line with dial-up network exchange capability, (excluding Centrex and FGA*), is required to provide the customer who subscribes to the private dial port with a connection from the central office circuit switch to the access concentrator. The customer who subscribes to the private dial-in port will be billed for the additional line.
3.	Private Dial-Out Access enables a customer who already has access into Infopath, to place a call out of an access concentrator to a destination on the circuit switched network. This port connection is dedicated to one customer and supports transmission speeds up to 2.4 kbps. A separate business line, as specified for the private dial-in port connection, is required to connect the central office circuit switch to the access concentrator. The customer is responsible for all appropriate charges that apply to the exchange line as well as for charges that apply to the outgoing call.
4.	Dedicated Access Port Connection provides dedicated access from a customer's premises to a port on the access concentrator at transmission speeds of up to 9.6 kbps using voice grade channels.
D. Network Usage — Refer to Section 17.2.2C.	
E. Optional Features	
1.	Network User Identifier (NUI) Code is an alphanumeric code which identifies the user to the Infopath packet switching service network. The code is stored in one access concentrator unless storage in additional access concentrators is specified. A customer may specify an NUI as auto-connect which allows a frequently called network address to be automatically connected when the auto-connect NUI is entered. This option is available for private dialed ports only. Usage charges for originating calls will be billed to the NUI unless otherwise specified. An NUI customer may invoke reverse charge request on a per call basis during call establishment with the call set-up packet. At the time of subscription, a customer subscribing to the NUI optional feature may make a Recognized Private Operating Agency (RPOA) preselection to transport its internetwork calls.
2.	Autoconnect — A subscriber may specify a frequently called address whose connection would be automatically made when a specific NUI is entered. The IP may request the autoconnect type NUI to provide to their subscribers or the end user NUI is prearranged to activate the autoconnect feature.
3.	Closed User Group allows the customer to establish a sub-network among a restricted number of other users within the Infopath packet switching service network who can communicate privately with each other. Members of the closed user group may be designated as having incoming, outgoing or unrestricted access.

* 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 Section 21 of this Tariff.

(C)
—
(C)

17. Packet Switching Service
17.2 INFOPATH® Packet Switching Service

17.2.3 Asynchronous Service	
E.	(Continued)
4.	Call Detail provides printed detail of each call billed to the customer for use of the Infopath packet switching service network. This option is available on either a continuous monthly basis or on a per request basis.
5.	Fast Select Request allows users data to be included in the call set-up request packet. This request is made on a per call basis and is billed on a per call basis which includes call set-up.
6.	Permanent Virtual Circuit is the electronic equivalent of a dedicated private line between two destination network addresses.
7.	Call Redirection is a data call forwarding capability that allows the customer to predefine one alternate destination to which calls will be redirected in the event of a failure or busy condition at the primary destination.

(D)

17.2.4 Application of Rates and Charges	
A. Synchronous	
1.	Rates and charges for the access concentrator connections (low to medium throughput) include central office equipment at the access concentrator. In addition, the service requires a voice grade, DDSII channel between the customer premises and the access concentrator.
2.	Rates and charges for the packet switch port connections (high throughput) include central office equipment at the packet switch and appropriate interface arrangements. In addition, the service requires a voice grade or DDSII channel, from the customer location to the packet switch at data rates of 9.6 or 56.0 kbps.
3.	Usage charges are based on calls originated to network addresses in the serving area.
4.	The optional feature call detail, may also be provided on a per request basis.
B. Asynchronous	
1.	Rates and charges for public and private dial access include central office equipment at the access concentrator. The asynchronous dedicated port connection requires a voice grade channel, from the customers location to the access concentrator and the appropriate central office interface.
2.	Network usage charges are based on calls originating over the Infopath packet switching service to the network addresses in the serving area. Asynchronous charges consist of call set-up, packets transported, and a service usage charge, when access to the Infopath packet switching service network is via public dial.

New England Telephone and Telegraph Company

17. Packet Switching Service
17.2 INFOPATH® Packet Switching Service

17.2.4 Application of Rates and Charges	
C.	The NRC which pertains to optional features will not be applicable when the optional features are ordered in conjunction with the initial Infopath packet switching service. When ordered subsequent to the initial Infopath packet switching service, the optional feature or software option change charge applies. One or more optional features per port may be included, per service order for the one NRC.
1.	For changes to optional features, one service rearrangement charge for the associated special access service applies as specified in Section 7.4.1B.
D.	Usage charges apply for call set-up and for packets transmitted during virtual connection. Call set-up and packets are accumulated and billed on a monthly basis.
E.	Move and change charges as specified in Section 7.4.1 apply as appropriate.
F.	In addition, for Synchronous service, rates and charges apply as appropriate, for each channel connected to an access concentrator or packet switch.

Verizon New England Inc.

17. Packet Switching Service
17.3 Reserved for Future Use

17.3.1	Reserved for Future Use
---------------	--------------------------------

(T)

Verizon New England Inc.

17. Packet Switching Service
17.3 Reserved for Future Use

17.3.2 Reserved for Future Use

Verizon New England Inc.

17. Packet Switching Service
17.4 Reserved for Future Use

(T)

17.4.1 Reserved for Future Use	
A.	
B.	
1.	
2.	
3.	
4.	
C.	
D.	
E.	

(T)

(D)

(D)

17.4.2 Reserved for Future Use	
A.	

(T)

(D)

(D)

Verizon New England Inc.

17. Packet Switching Service**17.4 Reserved for Future Use**

(T)

17.4.3 Discontinuance of Service	
A.	

(T)

(D)

(D)

New England Telephone and Telegraph Company

17. Packet Switching Service
17.5 Reserved for Future Use

(T)

17.5.1 Reserved for Future Use	
A.	
1.	
2.	
B.	
1.	
a.	
b.	
C.	
D.	
E.	
F.	
G.	
H.	
1.	

(T)

(D)

(D)

New England Telephone and Telegraph Company

17. Packet Switching Service
17.5 Reserved for Future Use

17.5.2 Reserved for Future Use		(T)
A.		(D)
B.		
C.		
D.		
E.		
1.		
2.		(D)

17.5.3 Reserved for Future Use		(T)
A.		(D)
1.		
2.		
3.		(D)

Issued: October 26, 2000
Effective: November 13, 2000Robert Mudge
Vice President-MA

DTE MA No. 15

Access Service
Section 17
Page 16
First Revision
Canceling Original

New England Telephone and Telegraph Company

17. Packet Switching Service
17.5 Reserved for Future Use

17.5.4 Reserved for Future Use		(T)
A.		(D)
1.		
2.		
		(D)