## **SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS)**

#### 5.1 General

5.1.1 Frame Relay Composite Service (FRCS) is a medium-speed, connection-oriented packet-switched data intra-island service that allows for the interconnection of Local Area Networks (LANs) or other compatible customer premises equipment for the purpose of connecting to a frame relay network. The terminal equipment accumulates the customer data and puts it into a frame relay format suitable for transmission over the Frame Relay network. This terminal equipment must conform to American National Standards Institute and Telecommunication Standardization Bureau of the International Telecommunication Union (ITU-T), formerly Committee Consultant de International Telegraphique et Telephonique (CCITT), standards.

FRCS permits customers to share network bandwidth for data transmissions.

In addition to the regulations and charges specified in this section, the general regulations and charges specified in other sections of this tariff apply as appropriate.

## 5.1.2 <u>Service Description</u>

FRCS is a transport service that facilitates the exchange of variable length information units (frames) between customer connections. Frames travel a fixed path through the network with an address that specifies the permanent virtual connection. Addresses are read by the network processor and the frames are relayed to the pre-assigned destination.

FRCS is available to customers within the LATA served by the Telephone Company and is provisioned from all Telephone Company wire centers.

FRCS service includes: the Frame Relay Access Connection, the Frame Relay Virtual Connections (VC) [which have associated Committed Information Rates (CIRs)] and the Frame Relay Customer Connection (FRCC).

The Frame Relay Access Connection provides access to a Telephone Company wire center equipped with a frame relay switch.

# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

# 5.1 General (Cont.)

#### 5.1.2 Service Description (Cont.)

The Frame Relay Access Connection combines a frame relay compatible 56.0 kbps, 64.0 kbps, 128 kbps, 256 kbps, 384 kbps, 512 kbps, 768 kbps, 1.544 Mbps or 44,736 Mbps digital transport facility with a port on a frame relay switch. The Frame Relay Access Connection includes the Company facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port. The end user port is a user-to-network interface which provides the line-side physical entry point into the Company frame relay network and permits FRCS compatible end user customer premises equipment (CPE) to originate or terminate an intralata access service. Connections between end user customer premises equipment and the Telephone Company frame relay switch are available at speeds of 56.0 kbps, 64.0 kbps, 128 kbps, 256 kbps, 384 kbps, 512 kbps, 768 kbps, 1.544 Mbps or 44.736 Mbps. For the provisioning of a DS3 (44.736 Mbps) FRAC a lease line is required between the Company Wire Center with a Frame Relay Switch and the customer site. Each end user port requires the identification of a corresponding terminating port. All end user ports must be in conformance with American National Standards Institute (ANSI) standards T1.606-1990, T1.606 Addendum 1-1991, T1.606a-1992, T1.617, Annex D-1992.

The Company will provide the logical circuits required within its frame relay network to connect the ports. These logical circuits, or Permanent Virtual Connections (PVC) or Switched Virtual Connections (SVC), are software defined, end-to end, bi-directional communications paths that are established and dis-established via the access service order process. While no physical circuits are dedicated, the two network addresses (one from each port) are connected electronically to form a PVC or SVC links.

The standard PVC establishes a communications path between two ports. At the time service is ordered the number of PVCs will be identified along with their Committed Information Rates. CIR is the bit rate at which the Frame Relay Network commits to transfer data. Committed Information Rates provide for frame relay switch throughput at designated speeds. This information is required for network routing purposes.

The SVC will not be provided at this time.

The Frame Relay Customer Connection provides access from the Company Wire Center equipped with a frame relay switch to the Customer Site.

The Frame Relay Customer Connection (FRCC) combines a high velocity port on a frame relay switch with its equivalent digital transport facility. For a DS3 FRCC a lease line cost must be added between the Telephone Company Wire Center with a Frame Relay Switch and the customer site.

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# **ACCESS SERVICES (Cont.)**

## **SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)**

# 5.1 General (Cont.)

#### 5.1.2 Service Description (Cont.)

A minimum of one FRAC and/or one FRCC connection is required for data to be transported between a customers designated premises and a FR switch for the purpose of connecting to other PRT customer networks or other PRT network services.

In the case of customers that have a meshed network, a minimum of one FRAC for data transport between the customer's premises is required.

### 5.1.3 Acceptance Testing

At no additional charge, the Telephone Company will, at the customer's request, cooperatively test at the time of installation.

#### 5.2 Rate Regulations

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

## 5.2.1 Rate Categories

The following diagrams depict a generic view of the components of Frame Relay Composite Service.

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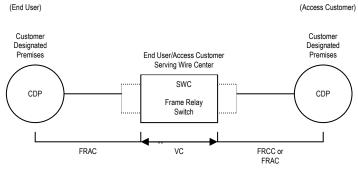
## **SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)**

### 5.2 Rate Regulations (Cont.)

#### 5.2.1 Rate Categories (Cont.)

#### Frame Relay Composite Service

## Customer's Serving Wire Center is equipped with a frame relay switch



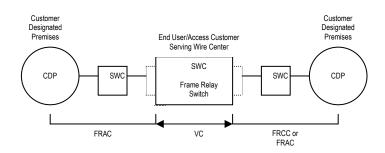
#### **RATE ELEMENTS**

FRAC = Frame Relay Access Connection

VC = Virtual Connection

FRCC = Frame Relay Customer Connection

#### Customer's Serving Wire Center is not equipped with a frame relay switch



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#### **RATE ELEMENTS**

FRAC = Frame Relay Access Connection

VC = Virtual Connection

FRCC = Frame Relay Customer Connection

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# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

# 5.2 Rate Regulations (Cont.)

## 5.2.1 Rate Categories (Cont.)

## (A) Frame Relay Access Connection

The Frame Relay Access Connection (FRAC) rate element recovers the costs associated with the communication path between the end user's premises and the Telephone Company wire center equipped with a frame relay switch. The FRAC includes the physical transmission facility between the customer designated premises and the customer's serving wire center, the interoffice transport (if applicable) between the customer's serving wire center and a wire center equipped with a frame relay switch, and the end user port on the Telephone Company's frame relay switch.

One FRAC charge applies per customer designated premises at which the FRCS connection is terminated. This applies even if the customer designated premises and the frame relay switch are collocated in a Telephone Company building.

#### (B) End User Port

An End User Port charge is applied as a discrete rate element in conjunction with jointly-provided Special Access Service.

The End User Port is the physical location in the Telephone Company switching office where the transport facility of the customer connects to the Frame Relay Network. It specifies how a frame relay switch sends and receives data from a frame relay end user customer's LAN or other compatible CPE devices.

The End User Port consists of either a 56.0 kbps, 64.0 kbps, 128 kbps, 256 kbps, 384 kbps, 512 kbps, 768 kbps, 1.544 Mbps or 44.736 Mbps interface. The port connecting the transport facility to the Telephone Company frame relay switch must be ordered and provided at the same speed as the associated transport facility.

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# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.2 Rate Regulations (Cont.)

#### 5.2.1 Rate Categories (Cont.)

# (C) Permanent Virtual Connection (PVC)

A PVC is a software defined communications path between two port connections.

Each PVC is provisioned with a customer selected Committed Information Rate. The CIR is a transmission speed specified by the customer. CIRs range from 8 kbps to 768 kbps. The Telephone Company will provide switch capacity to permit the customer to transmit information with guaranteed delivery at the specified CIR. The Telephone Company will permit customers to attempt to transmit at speeds up to two times the CIR with no guarantee of completion. Attempted transmissions at above two times the CIR will not be permitted.

Customers will be permitted to order multiple PVCs on a given port subject to switch limitations. Customers anticipating non-simultaneous transmission may order CIRs assigned to these multiple PVCs, the sum of which may theoretically exceed the actual throughput of the port. However, when simultaneous transmission of multiple PVCs occurs, the total of the transmission rate (CIRs) may not exceed the actual throughput of the port.

#### (A) Switched Virtual Connection (SVC)

Not available at this time

## SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.2 Rate Regulations (Cont.)

#### 5.2.2 Types of Rates and Charges

There are two types of rates and charges. They are monthly rates and nonrecurring charges. The rates and charges are described as follows:

### (A) Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a FRCS is provided. For billing purposes, each month is considered to have 30 days.

## (B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for FRCS are: installation of service and service rearrangements.

# (1) <u>Installation of Service</u>

A nonrecurring charge applies per FRAC installed and is based on the speed of the connection.

A nonrecurring charge applies per VC installed.

A nonrecurring charge applies per FRCC installed and is based on the speed of the connection.

# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

- 5.2 Rate Regulations (Cont.)
  - 5.2.2 <u>Types of Rates and Charges</u> (Cont.)
    - (B) <u>Nonrecurring Charges</u> (Cont.)
      - (2) <u>Service Rearrangements</u>

Service Rearrangements are changes to existing (installed) services.

A PVC Rearrangement Charge will be applied whenever a change is made to the CIR of an existing PVC after initial port installation and/or a change is made to the terminating port destination of the PVC.

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

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

## SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

- 5.2 Rate Regulations (Cont.)
  - 5.2.2 Types of Rates and Charges (Cont.)
    - (B) (Nonrecurring Charges (Cont.)
      - (3) Moves

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

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

The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

### (a) Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements.

# (b) Moves to a Different Building

Moves to a different building will be treated as discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.2 Rate Regulations (Cont.)

#### 5.2.3 Minimum Period

The minimum period for FRCS is three (3) months.

The minimum period for discounted FRCS is twelve months.

# 5.3 Optional Rate Plans

A Term Discount plan is available for Frame Relay Composite Service (FRCS). The Term Discount applies to each Frame Relay Access Connection. The Permanent Virtual Connections (PVC) are not eligible for a Term Discount.

Under the Term Discount plan, the current monthly rates for eligible services are reduced by a fixed percentage. The amount of the discount percentage differs based on the length of the service commitment period selected by the customer.

Discounts for the Term Discount plan are only applied to FRCS provided to a customer within the LATA.

The minimum service period is three (3) months. Under the Optional Rate Plans, the minimum service periods are as contracted.

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## SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.3 Optional Rate Plans (Cont.)

#### 5.3.1 Term Discounts

FRCS may be ordered at the customer's option on a month-to-month basis or for periods of 12 months (1 year), 36 months (3 years) or 60 months (5 years).

The customer must specify the length of the service commitment period at the time the service is ordered.

If a Term Discount Percentage increase occurs during the term of an existing Term Discount plan, the increased percentage will be applied automatically to the remainder of the current Term Discount period.

At the end of the Term Discount period, the customer may convert to month-tomonth service or subscribe to a new Term Discount plan. If the customer does not make a choice by the end of the discount period, the rates will automatically convert to month-to-month service rates.

To be included in a Term Discount plan, all eligible FRCS rate elements must be ordered for the same commitment term (i.e., all 36 months or all 60 months) and with the same service date. When additional capacity is subsequently added, it will be available only on a month-to-month basis unless the discount period of the entire service is upgraded.

Eligible FRCS rate elements are those provided to a customer within the same LATA. As long as the number of FRCS connections included in a Term Discount plan remains constant, customer requests to install and disconnect FRAS connections, including changes affecting different wire centers and/or customer designated premises, will not change the current Term Discount period or the minimum service period, and Discontinuance of Service charges will not apply.

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## SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.3 Optional Rate Plans (Cont.)

### 5.3.1 <u>Term Discounts</u> (Cont.)

## (A) <u>Upgrades in Term Discounts</u>

Services provided under month-to-month rates or Term Discount rates may be upgraded to a Term Discount plan at any time without incurring FRCS nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of the plan being upgraded. For example, a service with a 36 month commitment period may be upgraded to a new 36 month or 60 month service period. The monthly rates will be those that are in effect at the time the service is upgraded. A new minimum service period applies to all FRCS that is upgraded.

# (B) <u>Upgrades in Capacity</u>

If the customer chooses to upgrade a service under the Term Discount plan to a higher capacity (e.g., from 56.0 kbps to 64.0 kbps or from 56.0 kbps or 64.0 kbps to 1.544 Mbps), discontinuance charges will not apply, provided all the following conditions are met:

- the customer's order for the disconnect of the existing service and the installation of the new service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing service must reference the service installation order,
- the new service has a total capacity greater than the total capacity of the service being discontinued and,
- the new Term Discount period meets or exceeds the Term Discount period being discontinued.

# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

## 5.3 Optional Rate Plans (Cont.)

#### 5.3.1 Term Discounts (Cont.)

## (B) <u>Upgrades in Capacity</u> (Cont.)

A new minimum service period applies to all upgrades. Frame Relay Access Connection nonrecurring charge for an equivalent capacity of the existing services being upgraded to the higher speed service will not be assessed. FRAC nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service if requested at the same time as the upgrade request. Nonrecurring charges will apply for capacity that exceeds the existing equivalent capacity.

Discontinuance charges will not apply should the customer choose to upgrade either a portion of or the entire FRAS under the Term Discount plan and move the service to a new customer location within the same LATA.

## (C) <u>Discontinuance of Service</u>

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent (100%) of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent (15%) of the total undiscounted monthly charges will apply to the remaining portion of the discount service term.

### 5.3.2 <u>12 months (1 year) Plan</u>

### (A) <u>Upgrades 12 months (1 year) Plan</u>

Services provided under this plan may be upgraded to a Term Discount plan at any time without incurring FRCS nonrecurring charges or discontinuance charges for existing services. The new Term Discount plan must meet or exceed the service term of this plan being upgraded. For example, this service may be upgraded to a new 36 or 60 month service period. Once the customer chooses any of these Term Discount, the existing contract is terminated and substituted for a new contract. The monthly rates will be effective at the time the service is upgraded and will be those that are specified in section 5.4.1. A new minimum service period applies to all FRCS that is upgraded.

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# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

# 5.3 Optional Rate Plans (Cont.)

#### 5.3.2 12 months (1 year) Plan (Cont.)

## (B) <u>Upgrades in Capacity</u>

If the customer chooses to upgrade a service under the Term Discount plan to a higher capacity (e.g., from 56.0 kbps to 64.0 kbps or from 56.0 kbps or 64.0 kbps to 1.544 Mbps), discontinuance charges will not apply, provided all the following conditions are met:

- the customer's order for the disconnect of the existing service and the installation of the new service are received at the same time and specifically reference the application of upgrade in capacity,
- the customer's disconnect order for the existing service must reference the service installation order,
- the new service has a total capacity greater than the total capacity of the service being discontinued and,

A new minimum service period applies to all upgrades. Frame Relay Access Connection nonrecurring charge for an equivalent capacity of the existing services being upgraded to the higher speed service will not be assessed. FRAC nonrecurring charges will not apply to the upgraded lower speed services placed on the higher speed service if requested at the same time as the upgrade request. Nonrecurring charges will apply for capacity that exceeds the existing equivalent capacity.

Discontinuance charges will not apply should the customer choose to upgrade either a portion of or the entire FRAS under the Term Discount plan and move the service to a new customer location within the same LATA.

#### (C) Discontinuance of Service

If the customer chooses to disconnect all or a portion of the service prior to the expiration of the Term Discount period, discontinuance charges will apply to the portion of the service being discontinued.

Should the customer choose to discontinue a Term Discount plan prior to the completion of the minimum service period, discontinuance charges will apply. Discontinuance charges equal to one-hundred percent (100%) of the total undiscounted monthly rates, less any amounts previously paid, will apply for the minimum service period. Additionally, discontinuance charges of fifteen percent (15%) of the total undiscounted monthly charges will apply to the remaining portion of the discount service term. The monthly charges will be those that are specified in section 5.4.2

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# SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)

# 5.4 Rates and Charges

5.4.1 Rates and Charges (month to month)

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	N	/lonthly		<u>.</u>
		Rate	1	NRC
Frame Relay Access Connection, per FRAC				
56kbps / 64 kbps	\$	200.00	\$	700.00
128 kbps		250.00		700.00
256 kbps		350.00		700.00
384 kbps		425.00		700.00
512 kbps		500.00		700.00
768 kbps		650.00		700.00
1.544 Mbps		800.00		700.00
44.736 Mbps*		4,000.00	10	0,000.00
Frame Relay Customer Connection (FRCC), per FRCC				
1.544 Mbps		800.00		700.00
44.736 Mbps*		4,000.00	10	0,000.00
Term Discount, 36 months		15%		15%
Term Discount, 60 months		20%	:	20%

Standard Committed Information Rate	Monthly Rent	NRC
Permanent Virtual Connections (PVCs)		
0-16 kbps	\$ 5.00	\$ 50.00
32 kbps	6.00	50.00
56/64 kbps	7.00	50.00
128 kbps	9.00	50.00
256 kbps	14.00	50.00
384 kbps	20.00	50.00
512 kbps	28.00	50.00
768 kbps	36.00	50.00

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<sup>\*</sup>DS3, FRAC and FRCC rates and charges do not include lease line costs. A point to point DS3 speed facility is required.

## **SECTION 5 - FRAME RELAY COMPOSITE SERVICE (FRCS) (Cont.)**

## 5.4 Rates and Charges

# 5.4.2 Rates and Charges (12 months)<sup>1</sup>

Monthly		
Rate	NRC	
_		
\$ 181.00	\$ 634.00	
227.00	634.00	
317.00	634.00	
333.00	634.00	
393.00	634.00	
513.00	634.00	
531.00	634.00	
3,619.00	10,000.00	
800.00	700.00	
4,000.00	10,000.00	
	Rate  \$ 181.00 227.00 317.00 333.00 393.00 513.00 531.00 3,619.00	Rate         NRC           \$ 181.00         \$ 634.00           227.00         634.00           317.00         634.00           333.00         634.00           393.00         634.00           513.00         634.00           531.00         634.00           3,619.00         10,000.00

#### 5.5 <u>Promotional Offerings</u>

All new customers who subscribe for a one (1) year minimum service period to the Frame Relay service in connections of 256 kbps or above during the period from November 8,2006 and February 5,2007 the non-recurring charge (NCR) for FRAC, FRCC and PVCs prescribed under section 5.4 will be waived. If the order is delayed due to Company reasons, the promotional offering will be extended to those affected customers. In addition, all terms and conditions of this section are also applicable.

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<sup>&</sup>lt;sup>1</sup> Term Discount Plan of 36 month and 60 month would not applied for 12 month plan.

<sup>\*</sup>DS3, FRAC and FRCC rates and charges do not include lease line costs. A point to point DS3 speed facility is required.