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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

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**A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES****A140.1 Frame Relay Service**

(Obsoleted 9/19/2011, Type B – Not available for new installations, additions or on transfers of service to new location.)

**A140.1.1 General**

- A.** Frame Relay Service is a connection-oriented data transport service based on packet switching technology.
- B.** Frame Relay Service provides flexible connectivity using Permanent Virtual Circuits (PVCs) implemented over digital facilities operating at transmission speeds of 56 Kbps, 64 Kbps, 128 Kbps, 1.536 Mbps, or 44.210 Mbps.
- C.** Network interface specifications for Frame Relay Service are contained in the following documents:
  - ANSI T1.617-1991, "Integrated Services Digital Network (ISDN) - Digital Subscriber Signaling System No. 1 (DSS1)
  - Signaling Specification for Frame Relay Service", American National Standards Institute, April 1991 and ANSI T1.618-1991, "Integrated Services Digital Network (ISDN) - Core Aspects of Frame Relay Protocol for use with Frame Relay Bearer Service", American National Standards Institute, April 1991. Both of these documents may be ordered from:  
American National Standards Institute  
Customer Service  
11 West 42nd Street  
New York, New York 10036
  - Document No. 001-208966, "Frame Relay Specification with Extension Based on Proposed T1S1 Standards", Revision 1.0, Digital Equipment Corporation, Northern Telcom, Inc., and StrataCom, Inc., September 1990. This document may be ordered from:  
Frame Relay Forum  
39355 California Street  
Suite 307  
Freemont, CA 94538-1447
  - TR-73587 Frame Relay Service Interface and Performance Specifications. This document may be ordered from:  
BellSouth Telecommunications, Inc.  
Regional Documentation Coordinator  
20th Floor  
600 North 19th Street  
Birmingham, AL 35203
- D.** Frame Relay Service, as provided for in this section, is offered for intraLATA use only.
- E.** The *terms, conditions* and rates specified herein are in addition to the applicable *terms, conditions* and rates specified in other sections of this and other Guidebooks of the Company. (T)
- F.** The rates and charges set forth for Frame Relay Service provide for the furnishing of service where suitable facilities are available.
- G.** Frame Relay Service is only available when provided in conjunction with Broadband Line Service. Specifications for Broadband Line Service are contained in A40.5.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions

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##### A. Explanation of Terms

###### 1. Customer Connection to Frame Relay Service

The Customer Connection provides the customer with the standard interface to the Frame Relay Service network. This interface receives the data frame from the customer's network or device and verifies that the DLCI is valid before relaying the frame to the destination. Included in the Customer Connection are the customer's termination on the Frame Relay Service switching equipment, the transport from the Serving Area Point to the switching equipment, and the first DLCI. These interfaces connect the Frame Relay Service network with digital facilities operating at transmission speeds of 56 Kbps, 64 Kbps, 128 Kbps, 1.536 Mbps, or 44.210 Mbps.

###### 2. Frame Relay Service Network Serving Area

Certain Company Central Offices are designated by the Company as Serving Area Points for the Frame Relay Service Network Serving Area. A customer accessing the Frame Relay Service network, whose Serving Wire Center is designated a Serving Area Point, requires a Broadband Line-Fast Packet Option (FPO) as described in A40.5. A Frame Relay Service customer, whose Serving Wire Center is not designated a Serving Area Point, will use a Broadband Line-FPO to the Wire Center, as well as, the Broadband Line Extension-FPO (also described in A40.5) to gain access to the closest designated Serving Area Point.

###### 3. Permanent Virtual Circuit (PVC)

A PVC is a software defined data path transporting data within the Frame Relay Service network between two Customer Connections. This data path, once defined in the network software, does not have to be established again. PVCs are end-to-end, bi-directional channels that are established via the service provisioning process. A Standard PVC is created via the mapping of two Standard DLCIs; on an optional basis features are available to allow the creation of Priority Voice, Priority Data, Intelligent and MultiCast PVCs.

###### a. Priority PVC

Priority PVC capability allows a customer to differentiate specific PVCs with regard to the importance of the data within those PVCs as compared to other PVCs. In the case of contention or network congestion, the Frame Relay Service network will give precedence to the frames of a Priority PVC over frames of a Standard PVC. Frame Relay Service allows the creation of Priority Voice PVCs and Priority Data PVCs. Such a Priority PVC is formed by the mapping of Priority Voice or Priority Data DLCIs<sup>1</sup> (as set forth in A140.1.3.C.1.b or c) to Priority Voice and Priority Data DLCIs; these Priority DLCIs must have an associated CIR value of greater than zero.

###### b. Intelligent PVC

Intelligent PVC capability allows automatic rerouting on a per PVC basis within the Frame Relay Service network. The Intelligent PVC feature is associated with a customer-specified three DLCI PVC. With the Intelligent PVC feature, a PVC is established between an originating DLCI (referred to as the pivot endpoint) and a primary terminating DLCI (referred to as the primary endpoint). Frames from the originating DLCI (pivot endpoint) will automatically be rerouted to a secondary terminating DLCI (referred to as the secondary endpoint) if the Frame Relay switch detects trouble associated with the primary terminating DLCI (primary endpoint). After such rerouting, the Frame Relay switch will continue to monitor the signals from the primary endpoint and when the trouble is cleared, will automatically reroute the frames going to the secondary endpoint back to the primary endpoint. The **Technical reference** document TR-73587 provides more detailed technical information on how Intelligent PVC capability is provided.

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###### c. MultiCast PVC

MultiCast PVC capability allows a customer to establish a one-to-many broadcasting PVC that distributes data simultaneously from a host site to a group of predetermined remote sites (called a MultiCast PVC Group). Transmission on a MultiCast PVC is unidirectional (from the host to the remotes in each MultiCast PVC Group). All sites in a MultiCast PVC Group will be able to simultaneously receive a single packet transmission transmitted from the host; upon transmission from the host, the Frame Relay network replicates and distributes the packets to the various remote sites identified as members of the MultiCast PVC Group. A MultiCast PVC may be established as a Standard MultiCast PVC or as a Priority MultiCast PVC (refer to description of Priority PVC capability discussed in A140.1.2.A.3.a ).

**Note 1:** PVCs are bi-directional unless specified otherwise (e.g., a MultiCast PVC is uni-directional).

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

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##### A. Explanation of Terms (Cont'd)

###### 4. Data Link Connection Identifier

The Frame Relay standard specifies an address field called the Data Link Connection Identifier (DLCI). The DLCI specifies a connection. When any two DLCIs are mapped together, a PVC can be created. When three DLCIs are associated together, an Intelligent PVC can be formed. A DLCI which is not a Priority DLCI (as specified in A140.1.2.A.3.a) is referred to as a Standard DLCI.

###### 5. Committed Information Rate (CIR)

Committed Information Rate is a feature that enables the customer to select a sustained throughput under normal conditions. A CIR must be selected for each DLCI. A CIR selected with a value greater than zero has a separate charge from any DLCI charges. Frames submitted at a rate above the subscribed CIR will be marked "discard eligible" (DE) and, should network congestion occur, are subject to being dropped by the network. If CIR is set equal to zero, then all frames will be marked DE. However, in the absence of network congestion, DE marked frames will be transported with the same reliability as frames not marked DE within a single, Company Frame Relay Switch. The CIR value selected cannot exceed the minimum transmission speed of the link at either end of the PVC.

The CIR value of Priority Voice DLCIs and Priority Data DLCIs must be greater than zero.

###### 6. Feature Change Charge

In addition to any specific optional feature charges, a Feature Change Charge applies whenever a change is made (at the customer's request) to a single optional feature for a single customer within a single network configuration on a single switch within a single jurisdiction. One Feature Change Charge will apply per service order required to perform the work.

A Feature Change Charge is applicable if the "first" DLCI, the one included with the Customer Connection, is modified.

###### 7. Serving Area Point (SAP)

A Company Central Office that is designated as a member of the Frame Relay Service Network Serving Area. (See the definition of Frame Relay Service Network Serving Area.)

###### 8. Back-Up Capability

Back-Up Capability is available on an optional basis and provides the customer with the ability to have a back-up logical port configured to his service needs in the event that the customer's primary connection is disabled. A Back-Up Customer Connection utilizes a Broadband Line (with Broadband Line Extension Service, as appropriate). Both the Back-Up Customer Connection and its associated Broadband Line Service are specifically dedicated to providing back-up service and remain idle except when being utilized for back-up purposes.

The customer must prearrange with the Company which primary Customer Connections(s) may be directed to a specific Back-Up Customer Connection so that the necessary work is done by the Company which is required prior to back-up capability being possible. A Customer Connection so identified which may be redirected in the event of a failure is referred to as a back-up enabled primary Customer Connection, or referred to herein as simply the primary Customer Connection. A Frame Relay primary Customer Connection may only utilize a Frame Relay Back-Up Customer Connection and both must be the same type of interface (i.e., both configured as either NNI or UNI interfaces). A primary Customer Connection must be in the same Frame Relay Network Serving Area as its identified Back-Up Customer Connection. A primary Customer Connection may have only one Back-Up Customer Connection identified. A Back-Up Customer Connection may serve as the back-up for more than one primary Customer Connection; however, a Back-Up Customer Connection may only be actively in use with one primary Customer Connection at a given time.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

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##### A. Explanation of Terms (Cont'd)

##### 8. Back-Up Capability (Cont'd)

The Back-Up Customer Connection is manually activated by the Company when the customer requests service from a primary Customer Connection to be redirected to its pre-identified Back-Up Customer Connection. All DLCIs associated with the primary Customer Connection are rerouted to the Back-Up Customer Connection<sup>1</sup>. It is strongly recommended that the size of the Back-Up Customer Connection be the same size as the customer's largest primary Customer Connection.

In the event that the customer chooses to utilize a Back-Up Customer Connection which is of a lower speed than the primary Customer Connection, the Company cannot guarantee the sufficiency of the Back-Up Customer Connection to protect the customer's primary data. There exists the realistic possibility that due to the lower amount of physical bandwidth on the Back-Up Customer Connection in such cases, that not all of the customer's DLCIs will be provisioned to the Back-Up Customer Connection. Network congestion may be encountered which may result in packets of data being discarded or entire locations without access to Back-Up Capability.

A Back-Up Customer Connection is not eligible for Network Service Level Agreements (SLAs) specified in B.6..

##### 9. Oversubscription

A customer may establish multiple PVCs on a Frame Relay Service Customer Connection with a total CIR greater than the Frame Relay Service Customer Connection speed. This is called oversubscription. This allows the customer to take advantage of the fact that not all of these PVCs will be active simultaneously. However, the network's apparent performance will be degraded if the customer attempts to make use of this overbooked commitment (or oversubscription) beyond the capacity of the Frame Relay Service Customer Connection. In the worst case, attempts to fully utilize such overbooked commitment may appear to the customer as network unavailability.

The amount of oversubscription (expressed as a percentage) will be determined by the following formula:

$$\frac{\text{Sum of the CIR/PVC on a single Frame Relay Customer Connection}}{\text{Frame Relay Service Customer Connection speed}} \times 100$$

In order to qualify for Network SLAs (as specified in B.6.), a Frame Relay Service Customer Connection may only oversubscribe up to 200%. In the event the customer exceeds this oversubscription limit, Network SLA credits will not be issued. The customer then must either upgrade their Frame Relay Service Customer Connection speed or subscribe to an additional Customer Connection(s) to remain less than or equal to the 200% oversubscription limit to qualify for future Network SLA crediting.

**Note 1:** To appropriately provision new DLCIs ordered subsequent to a primary Customer Connection being enabled for Back-Up Capability, subsequent orders for DLCIs should specify that the DLCIs are being requested in association with a primary Customer Connection

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

##### B. Basis of Offering

1. Detailed monthly billing is not provided.
2. Suspension of service is not allowed.
3. Obligations of Customer and Company
  - a. The Company is not responsible for the installation, operation, or maintenance of any equipment provided by the customer.
  - b. The customer is responsible for the provision and maintenance of all Customer Provided Equipment (CPE) and to ensure that the operating characteristics of this equipment are compatible with and do not interfere with the service offered by the Company.
  - c. The maximum number of DLCIs per Customer Connection is subject to the characteristics of the customer's data traffic. Thus, the number of DLCIs per Customer Connection must be negotiated between the customer and the Company at the establishment of the Customer Connection and subsequent to the establishment should the traffic characteristics change.
  - d. The Company is authorized to provide Frame Relay Service for use in application testing subject to the **terms and conditions** set forth in A2.5.11. Up to 4 Customer Connections, with not more than 3 Customer Connections operating at the same transmission speeds, may be utilized in a typical applications test configuration. The Company is authorized to deviate from this average in order to fully participate in an application test with a customer which cannot otherwise be performed to the customer's satisfaction. Application testing is not available for 44.210 Mbps Customer Connections. Service Level Agreement credits as defined in 6. following do not apply for Frame Relay Service provided for an application test (i.e., no credits apply during the period of the application testing.)
4. In order to maintain the quality of Frame Relay Service, the Company reserves the right to perform preventive maintenance of software updates to the network. This could result in Frame Relay Service being unavailable during the time period between 2:00 A.M. and 4:00 A.M. Eastern Time on any given Wednesday or Sunday morning. However, the Company only expects to utilize this maintenance window for any given switch on the average of once a quarter. In addition, the Company will make every reasonable effort to provide advance notice to those customers likely to be severely affected by such maintenance work. This maintenance window may be adjusted by the Company upon written notice to the customer.
5. The minimum service period is one month.
6. Service Level Agreement
 

Frame Relay Service includes Service Level Agreements (SLAs) which specify the Company's provisioning, repair and performance commitments for Frame Relay Service in specific areas. Provisioning and repair commitments are measured on a per occurrence basis. Network service level commitments are monthly performance measurements. The following service measurements will outline the service levels that the Company will deliver to its Frame Relay customers.

##### Provisioning and Repair:

- Frame Relay Installation Interval
- Frame Relay Time-To-Repair

##### Network Service Levels:

- Frame Relay Network Availability
- Frame Relay Network Transit Delay
- Frame Relay Frame Delivery Rate

Service Level Commitments will define Frame Relay service measurements that the Company agrees to provide every customer. If the Company fails to meet a Service Level Commitment, the customer is eligible for a SLA credit. Credits for missed Network Service Level Commitments will only be available to customers subscribing to the Gold Package in Customer Network Management from A140.12. Billing credits which may apply if the Company does not meet the objectives associated with these stated SLAs (specifically covering rates for Frame Relay Service and associated Broadband Line Service from Section A40.) are provided as set forth in c. following. Credits only apply for portions of service supplied by the Company.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

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#### B. Basis of Offering (Cont'd)

##### 6. Service Level Agreements (Cont'd)

##### a. SLA Service Level Commitments

The Company's Service Level Commitments for Frame Relay Service are as follows:

- Frame Relay Installation Interval - Standard Interval
- Frame Relay Time-To-Repair on customer sites within the Frame Relay Network Serving Area - 4 hours
- Frame Relay Network Availability on a customer's network within the Frame Relay Network Serving Area – 99.9%
- Frame Relay Network Transit Delay/One Way – 60 milliseconds
- Frame Relay Frame Delivery Rate of all frames transmitted with CIR greater than 32 Kbps – 99.9%

##### b. SLA Restrictions

The Company will implement SLA provisioning restrictions that will define customer network design requirements and limitations to the Company's commitment to meet Service Levels for Frame Relay Service. Customer network design requirements are intended to limit or negate *the Company's* obligation to provide SLA credits when the customer has under-engineered their AT&T Frame Relay network. The customer network design requirements are as follows:

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- The customer's network must have a minimum of 10 customer connections for the Company to provide SLA credits.
- The total CIR on all PVCs carried by any of the customer's Frame Relay Customer Connections may not be greater than 200% of the Customer Connection speed (oversubscription).
- A customer must be subscribing to the Gold Package in Customer Network Management (CNM) from A140.12 to receive credits for missed Network Service Level Commitments. Customer Connections at both ends of a PVC must have the CNM Gold Package or equivalent. In the event only one end of a PVC is ordered from this Guidebook, credits will only be issued for the rate elements ordered from this Guidebook.

SLA credits do not apply when any stated objective is not met because the Company does not have control over the circumstances causing the objective to be missed. Situations over which the Company does not have control can be defined as, but not limited to, the following:

- any act, any omission or negligence on the part of the customer, any other customer or any third party, or of any other entity providing a portion of the service,
- labor difficulties, governmental orders, civil commotions, declared National Emergencies, criminal actions against the Company, acts of God, war, or other circumstances beyond the Company's control,
- the customer's premises equipment,
- unavailability of the customer's facilities and/or equipment, and
- customer oversubscription of Frame Relay Service Customer Connections.

SLA commitments only apply for service wholly within Company territory. SLA commitments will not apply for circuits which are part of a jointly provided service. SLA commitments do not apply for service provided by other telephone companies concurring in the rates, *terms and conditions* of the Company.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

##### B. Basis of Offering (Cont'd)

##### 6. Service Level Agreements (Cont'd)

##### b. SLA Provisioning Restrictions (Cont'd)

The customer must request a credit within one calendar month of the Company missing a Frame Relay Service Level Commitment. The Company will investigate customer requests for any SLA credits to determine the cause of any performance failures reported by the customer. The Company will investigate the customer's request over a period of up to 45 calendar days. The 45-day period will begin when the customer makes the request for credit with their *Company* Sales Representative. SLA credits will be provided to the customer if the Company determines that the Company had control over the circumstances causing the failure. If the Company determines that these failures are the result of oversubscription of Frame Relay Service Customer Connections, the Company will provide the customer with the reports documenting the oversubscription and Network SLA credits will not be issued. The customer will be required to upgrade their Frame Relay Service Customer Connections or no future SLA credits will be allowed on that Frame Relay Service Customer Connection(s).

When a customer requests a SLA credit for Frame Relay Network Availability, all requests for a calendar month must be submitted at the same time. For example, the customer receives a SLA report on May 1<sup>st</sup> providing a report on April performance. Any requests for Network Availability SLA credits on Customer Connections for the month of April must all be submitted together.

##### c. SLA Credits for Frame Relay Service Level Commitments

The following credits will apply when the Company misses a Service Level Commitment (each credit is described in (1) thru (5) following):

- Frame Relay Installation Interval – Credit non-recurring installation charge paid by the customer
- Frame Relay Time-To-Repair – Credit one day of Monthly Recurring Charge (MRC)
- Frame Relay Network Availability – Credit one day of MRC
- Frame Relay Network Transit Delay – Credit MRC
- Frame Relay Frame Delivery Rate – Credit MRC

The SLA credit amount will be determined by applying the credits outlined above to the rate elements or total billed revenues specified following.

- (1) Frame Relay Installation Interval Credit - this credit will only apply to the installation or upgrade of a Frame Relay Customer Connection. The credit will be equal to the nonrecurring installation charge for the Customer Connection, Broadband Line and Broadband Line Extension. The credit will not apply to expedited installations or to installations where no facility and/or switch exist. If on the due date the customer is not ready or in a case where another of the customer's service providers (including the customer's provider of customer premises equipment, interexchange service, or other local service provider) is not ready, the Company is not liable for missing the due date and SLA credits do not apply.
- (2) Frame Relay Time-To-Repair Credit - this credit will require that the customer report the problem to the *Company's* Repair Center. The repair interval will start with the time entered on the trouble ticket. The Service Level Commitment measurement will be based on each individual trouble ticket for a Customer Connection. Multiple trouble tickets on the same day for the same Customer Connection will only be eligible for one time-to-repair credit. The credit will be one day of the MRC for the Customer Connection and Broadband Line. Credits on any individual Customer Connection for a calendar month cannot exceed the MRC for the Customer Connection and Broadband Line.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

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##### B. Basis of Offering (Cont'd)

##### 6. Service Level Agreements (Cont'd)

##### c. (Cont'd)

- (3) Frame Relay Network Availability – this credit will apply in the event that the measurement for the customer's network is missed. The credit will then be for each Frame Relay Customer Connection which does not meet the 99.9% availability commitment. The credit will be one day of the MRC of the Frame Relay Customer Connection and the Broadband Line. The unavailability of a Customer Connection will be calculated from the trouble tickets submitted for the Customer Connection. The unavailability of a customer's network will be calculated from the trouble tickets submitted for each Customer Connection within the customer's network. The Service Level Commitment will be calculated by first subtracting the unavailable time from the total available time for a particular calendar month and then dividing it by the total available time. Included in available time are scheduled maintenance windows and time the network was unavailable due to circumstances outside the Company's control.
- (4) Frame Relay Network Transit Delay – measurement will be on each Frame Relay PVC (network port to network port). The credit will be equal to the MRC for the DLCI pair making up the PVC.
- (5) Frame Relay Frame Delivery Rate – measurement will be on each Frame Relay PVC. The credit will be equal to the MRC for the DLCI pair and 15 days of the MRC for each CIR making up the PVC.

##### C. Provision of Service

##### 1. Rates and charges contained in this Section of the *Guidebook* consist of the following elements:

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##### a. Customer Connection to Frame Relay Service

Frame Relay Service Customer Connections are available at the following transmission speeds: 56 Kbps, 64 Kbps, Fractional T1, Subrate T1, 1.536 Mbps, MultiLink, Subrate T3 and 44.210 Mbps.

- (1) Fractional T1 Customer Connections are provided at the following specific transmission speeds: 112 Kbps, 128 Kbps, 192 Kbps, 256 Kbps, 320 Kbps, 384 Kbps, 448 Kbps, 512 Kbps, 576 Kbps, 640 Kbps, 704 Kbps, 768 Kbps, 1024 Kbps and 1152 Kbps. A Fractional T1 Customer Connection is provisioned in association with a channelized 1.536 Mbps transport facility and requires the dedication of only a quantity of the DS0 channels equivalent to the Fractional T1 Customer Connection transmission speed.
- (2) Subrate T1 Customer Connections are provided at the following specific transmission speeds: 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, 768 Kbps and 1152 Kbps. A Subrate T1 Customer Connection is also provisioned in association with a 1.536 Mbps transport facility but requires the dedication of the full 1.536 Mbps transport facility's bandwidth.
- (3) MultiLink Customer Connections are provided at the following specific transmission speeds: 3 Mbps, 6 Mbps, 9 Mbps and 12 Mbps. A MultiLink Customer Connection is provisioned in association with multiple 1.536 Mbps Broadband Line facilities whose combined bandwidth is equivalent to the transmission speed of the MultiLink Customer Connection. MultiLink Customer Connections will not be available to operate with Customer Network Management or Frame Relay Back-Up Capability until such time as technical limitations are resolved.
- (4) Subrate T3 Customer Connections are provided at the following specific transmission speeds: 3 Mbps, 6 Mbps, 9 Mbps, 12 Mbps, 15 Mbps, 18 Mbps, 21 Mbps, 24 Mbps, 27 Mbps, 30 Mbps and 33 Mbps. A Subrate T3 Customer Connection is provisioned in association with a 44.210 Mbps transport facility and requires the dedication of the full 44.210 Mbps transport facility's bandwidth.

##### b. Back-Up Capability

##### c. Frame Relay Service Features

## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.1 Frame Relay Service (Cont'd)**

#### **A140.1.2 Terms and Conditions (Cont'd)**

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##### **C. Provision of Service (Cont'd)**

2. Certain Company Central Offices are designated by the Company as Serving Area Points (SAPs) for the Frame Relay Service Network Serving Area. A customer accessing the Frame Relay Service network, whose Serving Wire Center is designated a SAP, will only require a Broadband Line-FPO as described in A40.5. A Frame Relay Service customer, whose Serving Wire Center is not designated a SAP, will require a Broadband Line-FPO to the Serving Wire Center, as well as, a Broadband Line Extension-FPO (also described in A40.5) to gain access to the closest designated SAP.
3. The Customer Connection rate element includes the customer's transport from a Serving Area Point to the Frame Relay Service switching equipment and the customer's termination on the Frame Relay Service switching equipment. One Initial DLCI is applicable when DLCIs are ordered at the same time as the installation of the Customer Connection. Only one "Initial" DLCI (either one Initial Standard DLCI or one Initial Priority DLCI) is allowed per Customer Connection. Additional DLCIs (beyond this initial DLCI) ordered with the installation of the Customer Connection and any DLCIs ordered subsequent to the installation of the Customer Connection are considered Additional DLCIs.
4. Service Charges for installing Frame Relay Service are included in the respective nonrecurring charges specified herein. Service Charges from Section A4. are not applicable for installing such services. Charges applicable for customer requested change of service installation due date and cancellation of service installation are as specified in Section A40.9 following.
5. Should a customer having locations in more than one Frame Relay Network Serving Area within a LATA, desire to send data traffic between these locations, the customer can interconnect these locations through the following two options:
  - a. **Dedicated Connection:**  
 The customer subscribes to additional Customer Connections (in each Network Serving Area) which are enabled to support inter-serving area connectivity and Broadband Line Extension-FPOs to connect them. These additional rate elements will be used solely to transport this customer's data traffic between affected Frame Relay Network Serving Areas. In addition to the normal DLCI and CIR charges associated with each PVC, additional DLCI and CIR charges apply per PVC between the additional Customer Connection except when these connections have been specifically requested by the customer to be provisioned as customer specific trunks.
  - b. **Shared Connection:**  
 The Company may establish facilities between Frame Relay Service switching equipment in different Network Serving Areas in the same LATA and may allow customers to share bandwidth on these facilities; where these shared facilities are available to customers, a shared connection is an option. The customer must establish one or more Inter-Network Serving Area Links that extend between Frame Relay switches. Each of these links has an associated CIR. One PVC exists between both customer premises through each link. All CIRs on this PVC must have the same value. Charges for the Inter-Network Serving Area Link are applied as follows:
    - the Inter-Network Serving Area Link Establishment is charged at each end of the link,
    - the Inter-Network Serving Area Link CIR is charged at each end of the link, and
    - no additional DLCI charges apply for the link (however, normal DLCI and CIR charges apply for the PVC).
6. In some cases, the Company and another Incumbent Local Exchange Company that offers Frame Relay technology will jointly connect Frame Relay switching equipment within a LATA to provide customers the ability to interconnect their locations served by the different companies. In order to utilize the Company's portion of this jointly provided shared connection, the customer must subscribe to one end of an Inter-Network Serving Area Link and the associated CIR.
7. Based upon Frame Relay Forum Implementation Agreement 5 (FRF.5), a Frame Relay end user may send data from a premises location with a Frame Relay User Network Interface (UNI) or a Network to Network Interface (NNI) to another premises with an Asynchronous Transfer Mode (ATM) Service UNI. The Frame Relay data is essentially encapsulated in the ATM Service bit stream and must be retrieved by the end-user's CPE as Frame Relay. To enable this feature, the customer must establish one or more Frame Relay/ATM interworking links that extend between the Frame Relay and ATM switches. Each of these links has an associated CIR. One PVC exists between these switches through this link. All CIRs on this PVC must have the same value. The following charges apply for this Frame Relay/ATM Network Interworking feature:
  - the Inter-Network Serving Area Link Establishment is charged at each end of this link, and
  - the Inter-Network Serving Area Link CIR is charged at each end of this link, and
  - no additional DLCI charges apply for the interworking link (however, normal DLCI and CIR charges apply for the PVC).

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

(T)

##### C. Provision of Service (Cont'd)

8. Based upon Frame Relay Forum Implementation Agreement 8, FRF.8, a Frame Relay end user may send data from a premises location with a Frame Relay User Network Interface (UNI) or a Network to Network Interface (NNI) to another premises with an Asynchronous Transfer Mode (ATM) Service UNI. The Frame Relay data is converted from Frame Relay protocol to ATM protocol in the Frame Relay network. To enable this feature, the customer must establish one or more Frame Relay/ATM interworking links that extend between the Frame Relay and ATM switches. Each of these links has an associated CIR. One PVC exists between these switches through this link. All CIRs on this PVC must have the same value. The following charges apply for this Frame Relay/ATM Service Interworking feature:
  - the Inter-Network Serving Area Link Establishment is charged at each end of this link, and
  - the Inter-Network Serving Area Link CIR is charged at each end of this link, and
  - no additional DLCI charge apply

9. To have Back-Up Capability as an option, the customer is required to have a Back-Up Customer Connection and a separate Broadband Exchange Line (with Broadband Line Extension Service, as appropriate) which are designated specifically for back-up purposes. Monthly rates and nonrecurring charges applicable for a Back-Up Customer Connection are provided in A140.1.3.B.1.following. Monthly rates and nonrecurring charges for Broadband Line Service are found in A40.5.

The activation of a Back-Up Customer Connection via the rerouting of traffic from a primary Customer Connection to the Back-Up Customer Connection is a manual operation performed by the Company at the direction of the customer. At the direction of the customer, the Company will subsequently then redirect traffic from the Back-Up Customer Connection to the primary Customer Connection.

A Primary Customer Connection Back-Up Enablement/Change Charge provided in A140.1.3.B.2 is applicable per existing primary Customer Connection which is requested by the customer to be back-up enabled. A Primary Customer Connection Back-Up Enablement/Change Charge is also applicable for each existing back-up enabled primary Customer Connection when the customer requests a reassignment of that primary Customer Connection to a different Back-Up Customer Connection.

10. To create a Priority PVC, the customer requests the mapping of Priority Voice or Priority Data DLCIs.

Feature Change Charges apply for requests to convert existing Standard PVCs to Priority PVCs (or vice versa<sup>1</sup>). A Feature Change Charge applies per service order required to perform the work.

At the customer's request, a Priority PVC may be formed between a Frame Relay Service Priority Voice or Priority Data DLCI and an ATM Service non-UBR PVC Segment (which would additionally require Frame Relay to ATM Interworking capability)<sup>2</sup>. A Feature Change Charge shall apply for a request involving an existing Frame Relay to ATM Interworking PVC where the associated Standard DLCI is converted to a Priority DLCI (or vice versa); a Frame Relay Service Feature Change Charge applies per service order required to perform the Frame Relay Service work.

**Note 1:** Applicable for such requests on Standard PVCs, Intelligent PVCs or MultiCast PVCs.

**Note 2:** Not applicable to Priority MultiCast PVCs where Frame Relay to ATM Interworking is not technically possible.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

(T)

##### C. Provision of Service (Cont'd)

11. To create a Frame Relay Service Intelligent PVC, the customer requests the mapping of three DLCIs. A Frame Relay Service Intelligent PVC may be comprised of three Standard DLCIs, three Priority Voice DLCIs or three Priority Data DLCIs. One Intelligent PVC Charge (a recurring rate) applies per customer-specified arrangement of 3 DLCIs and applies in addition to the appropriate nonrecurring and recurring charges for each of the three DLCIs. The Intelligent PVC Charge shall be billed to the Customer Connection associated with the DLCI which is the pivot endpoint (as explained in A140.1.2.A.3.b.) of this PVC.

A request to convert an existing two DLCI PVC into a three DLCI Intelligent PVC (or vice versa) shall be considered as a request to disconnect the existing PVC and as a request for the connection of new DLCIs to form the new PVC. At the customer's direction, the DLCI numbers associated with the PVC being disconnected may be reused for the DLCIs associated with the new PVC.

The pivot endpoint of an Intelligent PVC must be provisioned out of a Company-provided Frame Relay Service switch. (The primary endpoint and secondary endpoint of an Intelligent PVC may be associated with premises located outside of Company territory. If only Company provided switches are utilized in the total service configuration, no service limitations should occur; however, when a non-Company switch is involved in an Intelligent PVC configuration, service limitations may be encountered. *Technical reference* document TR-73587, which contains technical information on Intelligent PVC rerouting, provides details relating to such limitations.)

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Both the primary and secondary endpoints of an Intelligent PVC must be of the same service type; therefore, both endpoints must be Frame Relay Service because the use of any method of Frame Relay to ATM interworking within an Intelligent PVC configuration is not currently technically feasible.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.2 Terms and Conditions (Cont'd)

(T)

##### C. Provision of Service (Cont'd)

12. To create a MultiCast PVC, the customer must have established individual PVCs between the Customer Connection of the host site and each Customer Connection of each remote site that is to be a member of that specific MultiCast PVC Group. Standard charges apply for the establishment of the DLCIs, CIR, etc. associated with these member PVCs. While these standard PVCs will be identified as members of a MultiCast PVC Group (and as such receive the unidirectional broadcast transmission from the host site), each individual PVC is still a bi-directional PVC capable of being used by the host site and remote site to communicate independently of the MultiCast PVC Group.

The customer shall provide a unique DLCI number to be used to identify each MultiCast PVC Group associated with a host site; this unique DLCI number will be used in establishing the MultiCast PVC and shall be utilized on an ongoing basis to refer to that specific MultiCast PVC when requesting any subsequent change activity to the associated MultiCast PVC Group. A host site can have more than one MultiCast PVC. A remote site can be a part of multiple MultiCast PVC Groups associated with the same or multiple other host site(s).

Each MultiCast PVC Group shall be established as a Standard MultiCast PVC Group or a Priority MultiCast PVC Group. A Standard MultiCast PVC Group shall be comprised of member PVCs established utilizing all Standard DLCIs; while not specifically required, it is strongly recommended that each member PVC in a Standard MultiCast PVC have DLCIs with an associated CIR value of greater than zero. A Priority MultiCast PVC Group shall be comprised of member PVCs established utilizing all Priority (Voice or Data) DLCIs; each member PVC in a Priority MultiCast PVC is required to have Priority (Voice or Data) DLCIs with an associated CIR value of greater than zero.

One MultiCast PVC Group Charge shall apply and be billed to the host site in association with each MultiCast PVC established. The appropriate MultiCast PVC Group Charge varies based 1) upon whether the MultiCast PVC is to be a Standard MultiCast PVC or a Priority MultiCast PVC and 2) upon the transmission speed of the host site Frame Relay Customer Connection (e.g., the Priority 1.536 Mbps MultiCast PVC Group Charge would be applicable for a Priority MultiCast PVC established on a 1.536 Mbps Frame Relay Customer Connection).

A MultiCast PVC Group Modification Charge applies per member PVC that is requested to be modified, added to or deleted from an existing MultiCast PVC Group, subsequent to the initial establishment of the MultiCast PVC. The MultiCast PVC Group Modification Charges are billed to the host Customer Connection.

If a Standard MultiCast PVC is requested to be changed to a Priority MultiCast PVC (or vice versa), Feature Change Charges apply as set forth in A140.1.2.C.9 to change each DLCI in each member PVC from Standard to Priority (or vice versa). In addition to the nonrecurring charge associated with the MultiCast PVC Group Charge billed to the host for this change request, a MultiCast PVC Group Modification Charge shall also apply per member PVC so modified in the MultiCast PVC Group.

The Frame Relay Customer Connection associated with the host site must be of a transmission speed equal to or greater than 1.536 Mbps and may not be a MultiLink Customer Connection.

A service inquiry will be required in order to determine the availability of MultiCast PVC Capability to meet each customer request for a MultiCast PVC as a result of the following limitations. MultiCast PVC Capability is possible only where Frame Relay switch facilities are available (that serve the host site) that are currently technically capable of provisioning this feature. There is an additional limitation on the total number of MultiCast Groups which can be established per Frame Relay switch; consequently, capacity may not exist to fulfill a customer's request. Additionally, there is a per MultiCast PVC Group limit on the number of members possible which varies based upon the packet size transmitted by the host site; as the standard packet size increases, the number of members that may be in the MultiCast PVC Group decreases.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.1 Frame Relay Service (Cont'd)****A140.1.2 Terms and Conditions (Cont'd)**

(T)

**D. Contract Plans**

1. Contract plans as specified in the Fast Packet Services Payment Plan in A40.10 with contract periods are described as follows:
  - a. Term Payment Plan A - payment periods may be selected from 12 to 36 months.<sup>1</sup>
  - b. Term Payment Plan B - payment periods may be selected from 37 to 60 months.<sup>2</sup>
2. (DELETED)
3. (DELETED)
4. A Termination Liability Charge will not apply to Frame Relay Service terminated on or after the date Frame Relay Service became an obsolete service offering.

**Note 1:** As of January 20, 2011, Term Payment Plan A payment periods greater than 24 months are no longer available for new or renewing subscribers.

**Note 2:** As of January 20, 2011, Term Payment Plan B payment periods are no longer available for new or renewing subscribers.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges

##### A. Customer Connection to Frame Relay Service

1. A minimum of one Customer Connection is required per customer to subscribe to Frame Relay Service.

		Nonrecurring	Month To	A <sup>4</sup> 12 to 36 Months	B <sup>5</sup> 37 to 60 Months	USOC
		Charge	Month	Months	Months	
(a)	at 56 Kbps <sup>1</sup>	\$400.00	\$165.00	\$142.50	\$67.00	FRH56
(b)	at 64 Kbps <sup>1</sup>	400.00	165.00	142.50	67.00	FRH64
(c)	at Fractional T1					
	- 112 Kbps <sup>2</sup>	460.00	249.00	216.00	102.00	FRH11
	- 128 Kbps <sup>2</sup>	460.00	249.00	216.00	102.00	FRH12
	- 192 Kbps <sup>2</sup>	460.00	394.50	342.00	173.00	FRH19
	- 256 Kbps <sup>2</sup>	460.00	496.50	429.00	203.00	FRH25
	- 320 Kbps <sup>2</sup>	460.00	621.00	537.00	254.00	FRH32
	- 384 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH38
	- 448 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH44
	- 512 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH51
	- 576 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH57
	- 640 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH40
	- 704 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH70
	- 768 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH76
	- 1024 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH24
	- 1152 Kbps <sup>2</sup>	525.00	849.00	763.50	440.00	FRH52
(d)	at Subrate T1					
	- 128 Kbps <sup>3</sup>	525.00	352.50	321.00	166.00	FRHS1
	- 256 Kbps <sup>3</sup>	525.00	414.00	384.00	208.00	FRHS2
	- 384 Kbps <sup>3</sup>	525.00	538.50	507.00	282.00	FRHS3
	- 512 Kbps <sup>3</sup>	525.00	621.00	579.00	323.00	FRHS5
	- 768 Kbps <sup>3</sup>	525.00	693.00	651.00	365.00	FRHS7
	- 1152 Kbps <sup>3</sup>	525.00	786.00	714.00	414.00	FRHSE
(e)	at 1.536 Mbps	525.00	849.00	763.50	440.00	FRH15

**Note 1:** The Customer Connections at 56 Kbps and 64 Kbps are primarily utilized respectively with 56 Kbps and 64 Kbps transport facilities. They may alternately be utilized with a 1.536 Mbps transport facility and provisioned as a Fractional T1 service (as discussed in Note 2).

**Note 2:** Fractional T1 Customer Connection: This Customer Connection is provisioned in association with channelized 1.536 Mbps transport facilities. If requested with a 1.536 Mbps Broadband Line Service, only other Fast Packet Transport Services may utilize the remaining bandwidth of the transport; if provided in association with spare capacity on a channelized Private Line Service (e.g., channelized MegaLink Service), any other services may utilize the remaining bandwidth as allowed by the *terms and conditions* governing the transport service.

**Note 3:** Subrate T1 Customer Connection: This Customer Connection is provisioned as Subrate T1 service and may be referred to for marketing purposes as Flexible T1 Frame Relay Service. Each such Customer Connection requires the dedication to it of a full 1.536 Mbps of transport bandwidth (e.g., a full 1.536 Mbps Broadband Line Service); no other service(s) may utilize the remaining bandwidth.

**Note 4:** As of January 20, 2011, Term Payment Plan A payment periods greater than 24 months are no longer available for new or renewing subscribers.

**Note 5:** As of January 20, 2011, Term Payment Plan B payment periods are no longer available for new or renewing subscribers.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges (Cont'd)

##### A. Customer Connection to Frame Relay Service (Cont'd)

1. A minimum of one Customer Connection is required per customer to subscribe to Frame Relay Service. (Cont'd)

		Nonrecurring Charge	Month To Month	A <sup>4</sup> 12 to 36 Months	B <sup>5</sup> 37 to 60 Months	USOC
(f)	at MultiLink					
	- 3 Mbps <sup>1,2</sup>	\$ 500.00	\$ 897.00	\$ 828.00	\$ 690.00	FRHM3
	- 6 Mbps <sup>1,2</sup>	600.00	1121.00	1035.00	863.00	FRHM6
	- 9 Mbps <sup>1,2</sup>	800.00	1346.00	1242.00	1035.00	FRHM9
	- 12 Mbps <sup>1,2</sup>	1000.00	1570.00	1449.00	1208.00	FRHM2
(g)	at Subrate T3					
	- 3 Mbps <sup>3</sup>	2000.00	1127.00	1035.00	857.00	FRHO3
	- 6 Mbps <sup>3</sup>	2000.00	1213.00	1104.00	972.00	FRHO6
	- 9 Mbps <sup>3</sup>	2000.00	1443.00	1313.00	1156.00	FRHO9
	- 12 Mbps <sup>3</sup>	2000.00	1673.00	1523.00	1340.00	FRH2M
	- 15 Mbps <sup>3</sup>	2000.00	1903.00	1732.00	1524.00	FRH5M
	- 18 Mbps <sup>3</sup>	2000.00	2133.00	1941.00	1708.00	FRH18
	- 21 Mbps <sup>3</sup>	2000.00	2363.00	2151.00	1893.00	FRH21
	- 24 Mbps <sup>3</sup>	2000.00	2593.00	2360.00	2077.00	FRH4M
	- 27 Mbps <sup>3</sup>	2000.00	2823.00	2569.00	2261.00	FRH27
	- 30 Mbps <sup>3</sup>	2000.00	3053.00	2778.00	2445.00	FRH30
	- 33 Mbps <sup>3</sup>	2000.00	3283.00	2988.00	2629.00	FRH33
(h)	at 44.210 Mbps	1225.00	4025.00	3738.00	3450.00	FRH10

**Note 1:** A MultiLink Customer Connection is provisioned using multiple 1.536 Mbps Broadband Lines whose combined bandwidth is equivalent to the transmission speed of the MultiLink Customer Connection.

**Note 2:** The MultiLink Customer Connection Speed Change Charge applies in lieu of the nonrecurring charge shown above when an existing MultiLink Customer Connection is requested to be changed to another speed MultiLink Customer Connection. Additional charges from A40.5 also apply for additional 1.536 Mbps Broadband Lines required when the request is for a change to a higher MultiLink speed.

**Note 3:** A Subrate T3 Customer Connection (defined as a Customer Connection from 3 to 33 Mbps) is provisioned utilizing 44.210 Mbps of transport bandwidth (e.g., a 44.210 Mbps Broadband Line Service); no other service(s) may utilize the remaining bandwidth.

**Note 4:** As of January 20, 2011, Term Payment Plan A payment periods greater than 24 months are no longer available for new or renewing subscribers.

**Note 5:** As of January 20, 2011, Term Payment Plan B payment periods are no longer available for new or renewing subscribers.



## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.1 Frame Relay Service (Cont'd)**

#### **A140.1.3 Rates and Charges (Cont'd)**

##### **A. Customer Connection to Frame Relay Service (Cont'd)**

##### **2. Subrate T1 Speed Change Charge**

This nonrecurring charge applies per Subrate T1 Customer Connection (defined as a Customer Connection provisioned as a Subrate T1 service with restricted bandwidth of 128 Kbps, 256 Kbps, 384 Kbps, 512 Kbps, 768 Kbps or 1152 Kbps) requested to be changed to either 1) another speed of Subrate T1 Customer Connection or 2) to a 1.536 Mbps Customer Connection. Accordingly, the Subrate T1 Speed Change Charge applies in lieu of the Nonrecurring Charge specified in A140.1.3.A.1 for the new speed Customer Connection.

	<b>Nonrecurring Charge</b>	<b>USOC</b>
(a) Per Subrate T1 Customer Connection Speed Change Request	<b>\$90.00</b>	<b>FRHT1</b>

##### **3. Fractional T1 to Subrate T1 Change Charge**

This nonrecurring charge applies per Fractional T1 Customer Connection requested to be changed to a Subrate T1 Customer Connection. Accordingly, the Fractional T1 to Subrate T1 Change Charge applies in lieu of the Nonrecurring Charge specified in A140.1.3.A.1 for the new Subrate T1 Customer Connection.

	<b>Nonrecurring Charge</b>	<b>USOC</b>
(a) Per Fractional T1 to Subrate T1 Customer Connection Change Request	<b>\$180.00</b>	<b>FRHFS</b>

##### **4. MultiLink Speed Change Charge**

This nonrecurring charge applies per MultiLink Customer Connection requested to be changed to another speed MultiLink Customer Connection. Accordingly, the MultiLink Speed Change Charge applies in lieu of the Nonrecurring Charge specified in A140.1.3.A.1 for the new speed MultiLink Customer Connection. Additional charges from A40.5 also apply for additional 1.536 Mbps Broadband Lines required when the request is for a change to a higher MultiLink speed.

	<b>Nonrecurring Charge</b>	<b>USOC</b>
(a) Per MultiLink Customer Connection Speed Change Request	<b>\$300.00</b>	<b>FRHMC</b>

##### **5. Subrate T3 Speed Change Charge**

This nonrecurring charge applies per Subrate T3 Customer Connection (defined as a Customer Connection from 3 Mbps to 33 Mbps) requested to be changed to either 1) another speed Subrate T3 Customer Connection or 2) to a 44.210 Mbps Customer Connection. Accordingly, the Subrate T3 Speed Change Charge applies in lieu of the Nonrecurring Charge specified in A140.1.3.A.1 for the new speed Customer Connection.

	<b>Nonrecurring Charge</b>	<b>USOC</b>
(a) Per Subrate T3 Customer Connection Speed Change Request	<b>\$500.00</b>	<b>FRHT3</b>

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges (Cont'd)

##### B. Back-Up Capability

On an optional basis a customer may choose to have Back-Up Capability for his Frame Relay Service.

##### 1. Frame Relay Back-Up Customer Connection

A minimum of one Frame Relay Back-Up Customer Connection is required in order to have Back-Up Capability.  
(Provisioning Basic Class of Service: FPLBN)

		Nonrecurring Charge	Month To Month	A <sup>1</sup> 12 to 36 Months	B <sup>2</sup> 37 to 60 Months	USO C
(a)	at 56 Kbps	\$400.00	\$46.00	\$ 40.00	\$29.00	FRH56
(b)	at 64 Kbps	400.00	46.00	40.00	29.00	FRH64
(c)	at 1.536 Mbps	525.00	377.00	339.00	293.00	FRH15
(d)	at 44.210 Mbps	1,225.00	3,220.00	2,990.00	2,760.00	FRH10
2.	Primary Customer Connection Back-Up Enablement/Change Charge			Nonrecurring Charge		USOC
(a)	Per Existing Primary Customer Connection			\$125.00		FRHBE

**Note 1:** As of January 20, 2011, Term Payment Plan A payment periods greater than 24 months are no longer available for new or renewing subscribers.

**Note 2:** As of January 20, 2011, Term Payment Plan B payment periods are no longer available for new or renewing subscribers.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges (Cont'd)

##### C. Frame Relay Service Feature Charges

##### 1. DLCI

##### a. Standard DLCI

##### (1) Per Customer Connection

	Nonrecurring Charge	Monthly Rate	USOC
(a) Initial Standard DLCI <sup>1</sup>	\$ -	\$ -	XAFD1
(b) Each Additional Standard DLCI	25.00	2.00	FRVDX

##### b. Priority Voice DLCI

##### (1) Per Customer Connection

(a) Initial Priority Voice DLCI <sup>1,2</sup>	-	5.00	FRVPU
(b) Each Additional Priority Voice DLCI <sup>2</sup>	40.00	5.00	FRVPV

##### c. Priority Data DLCI

##### (1) Per Customer Connection

(a) Initial Priority Data DLCI <sup>1,2</sup>	-	5.00	FRVPC
(b) Each Additional Priority Data DLCI <sup>2</sup>	40.00	5.00	FRVPD

##### 2. Committed Information Rate (CIR)

##### a. The chosen CIR cannot exceed the minimum transmission speed of the link at either end of the PVC.

##### (1) Per DLCI

(a) 0 Kbps	-	-	FRVRO
(b) 1 thru 32 Kbps	-	9.00	FRVR3
(c) 33 thru 56 Kbps	-	15.00	FRVR5
(d) 57 thru 64 Kbps	-	16.00	FRVR6
(e) 65 thru 128 Kbps	-	22.00	FRVR1
(f) 129 thru 256 Kbps	-	33.00	FRVR2
(g) 257 thru 384 Kbps	-	47.00	FRVR4
(h) 385 thru 512 Kbps	-	59.00	FRVR8
(i) 513 thru 768 Kbps	-	107.00	FRVR7
(j) 769 Kbps thru 1.536 Mbps	-	161.00	FRVR9
(k) 1.537 thru 4 Mbps	-	230.00	FRVRJ
(l) 4.1 thru 10 Mbps	-	426.00	FRVRK
(m) 10.1 thru 16 Mbps	-	748.00	FRVRL
(n) 16.1 thru 34 Mbps	-	1,955.00	FRVRM
(o) 34.1 thru 44.210 Mbps	-	2,530.00	FRVRN

##### 3. Intelligent PVC Charge

##### a. One Intelligent PVC Charge applies per customer-specified arrangement of 3 DLCIs and is in addition to the charges for the DLCIs.

##### (1) Per Intelligent PVC

(a) Each	\$ -	\$2.00	FRV1P
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**Note 1:** One "Initial" DLCI is applicable when DLCIs are ordered at the same time as the installation of the Customer Connection. Only one Initial DLCI (either one Initial Standard DLCI or one Initial Priority DLCI) is allowed per Customer Connection. All other DLCIs are considered Additional DLCIs.

**Note 2:** A Priority DLCI must have CIR with a value greater than 0.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges (Cont'd)

##### C. Frame Relay Service Feature Charges (Cont'd)

##### 4. MultiCast PVC Charges

- a. MultiCast PVC Group Charge - One MultiCast PVC Group Charge applies per MultiCast PVC on a host site Frame Relay Customer Connection. This charge is in addition to the appropriate charges (DLCI, CIR, etc.) for the individual host to remote PVCs which are members of the MultiCast PVC Group.

- (1) Per Standard MultiCast PVC Group (established from multiple host to remote PVCs which utilize all Standard DLCIs) on a host Frame Relay Customer Connection of the following transmission speed:

	Nonrecurring Charge	Month To Month	A <sup>1</sup> 12 to 36 Months	B <sup>2</sup> 37 to 60 Months	USOC
(a) 1.536 Mbps	\$ 100.00	\$ 242.00	\$ 225.00	\$ 216.00	FRVW1
(b) 3 Mbps	100.00	334.00	316.00	310.00	FRVW3
(c) 6 Mbps	100.00	391.00	362.00	340.00	FRVW6
(d) 9 Mbps	100.00	443.00	411.00	386.00	FRVW9
(e) 12 Mbps	100.00	495.00	459.00	432.00	FRVW2
(f) 15 Mbps	100.00	546.00	507.00	478.00	FRVW5
(g) 18 Mbps	100.00	598.00	555.00	524.00	FRVW8
(h) 21 Mbps	100.00	650.00	604.00	570.00	FRVWT
(i) 24 Mbps	100.00	702.00	652.00	616.00	FRVW4
(j) 27 Mbps	100.00	753.00	700.00	662.00	FRVW7
(k) 30 Mbps	100.00	805.00	749.00	708.00	FRVWO
(l) 33 Mbps	100.00	857.00	797.00	754.00	FRVWM
(m) 44.210 Mbps	100.00	966.00	941.00	917.00	FRVWN

- (2) Per Priority MultiCast PVC Group (established from multiple host to remote PVCs which utilize all Priority DLCIs) on a host Frame Relay Customer Connection of the following transmission speed:

(a) 1.536 Mbps	\$ 100.00	\$ 259.00	\$ 243.00	\$ 233.00	FRVN1
(b) 3 Mbps	100.00	352.00	334.00	327.00	FRVN3
(c) 6 Mbps	100.00	408.00	380.00	357.00	FRVN6
(d) 9 Mbps	100.00	460.00	428.00	403.00	FRVN9
(e) 12 Mbps	100.00	512.00	476.00	449.00	FRVN2
(f) 15 Mbps	100.00	564.00	524.00	495.00	FRVN5
(g) 18 Mbps	100.00	615.00	573.00	541.00	FRVN8
(h) 21 Mbps	100.00	667.00	621.00	587.00	FRVNT
(i) 24 Mbps	100.00	719.00	669.00	633.00	FRVN4
(j) 27 Mbps	100.00	771.00	718.00	679.00	FRVN7
(k) 30 Mbps	100.00	822.00	766.00	725.00	FRVNO
(l) 33 Mbps	100.00	874.00	814.00	771.00	FRVNM
(m) 44.210 Mbps	100.00	983.00	959.00	934.00	FRVNN

- b. MultiCast PVC Group Modification Charge - The MultiCast PVC Group Modification Charge is a nonrecurring charge which applies per member PVC requested to be modified, added to or deleted from an existing MultiCast PVC Group.

- (1) Per Customer Request

	Nonrecurring Charge	USOC
(a) Per Host to Remote PVC	\$ 40.00	FRVMC

**Note 1:** As of January 20, 2011, Term Payment Plan A payment periods greater than 24 months are no longer available for new or renewing subscribers.

**Note 2:** As of January 20, 2011, Term Payment Plan B payment periods are no longer available for new or renewing subscribers.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.1 Frame Relay Service (Cont'd)

#### A140.1.3 Rates and Charges (Cont'd)

##### C. Frame Relay Service Feature Charges (Cont'd)

##### 5. Inter-Network Serving Area Link

##### a. Per End of Link

##### (1) Link

		<b>Nonrecurring Charge \$10.00</b>	<b>Monthly Rate -</b>	<b>USOC FRVLE</b>
(a)	Per establishment			
(2)	CIR			
(a)	0 thru 32 Kbps	-	<b>10.00</b>	<b>FRVL3</b>
(b)	33 thru 56 Kbps	-	<b>15.00</b>	<b>FRVL5</b>
(c)	57 thru 64 Kbps	-	<b>16.00</b>	<b>FRVL6</b>
(d)	65 thru 128 Kbps	-	<b>20.00</b>	<b>FRVL1</b>
(e)	129 thru 256 Kbps	-	<b>35.00</b>	<b>FRVL2</b>
(f)	257 thru 384 Kbps	-	<b>55.00</b>	<b>FRVL4</b>
(g)	385 thru 512 Kbps	-	<b>70.00</b>	<b>FRVL8</b>
(h)	513 thru 768 Kbps	-	<b>150.00</b>	<b>FRVL7</b>
(i)	769 Kbps thru 1.536 Mbps	-	<b>225.00</b>	<b>FRVL9</b>
(j)	1.537 thru 4 Mbps	-	<b>500.00</b>	<b>FRVLJ</b>
(k)	4.1 thru 10 Mbps	-	<b>650.00</b>	<b>FRVLK</b>
(l)	10.1 thru 16 Mbps	-	<b>800.00</b>	<b>FRVLL</b>
(m)	16.1 thru 34 Mbps	-	<b>2,100.00</b>	<b>FRVLM</b>
(n)	34.1 thru 44.210 Mbps	-	<b>2,500.00</b>	<b>FRVLN</b>
6.	Feature Change Charge			
(a)	Per occurrence, per feature	<b>25.00</b>	-	<b>FRVFX</b>

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**A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES**

**A140.2 Reserved For Future Use**

**A140.3 (DELETED)**

(D)

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**A140. OBSOLETE SERVICE OFFERING - FAST PACKET TRANSPORT SERVICES**

**A140.3 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.3 (DELETED) (Cont'd)**

(D)



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**A140.OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES**

**A140.3 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.3 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.3 (DELETED) (Cont'd)**

(D)

**A140.4 Reserved for Future Use**

A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES

A140.5 Broadband Line Service

A140.5.1 General

Except as specified in A140.5.2 and A140.5.3 following, terms and conditions located in A40.5 are applicable.

A140.5.2 Terms and Conditions

(Obsoleted 11/4/2002, Type 4) Not available for new installations, moves or changes. Upon expiration of an existing contract, a 128 Kbps (2B1Q) Broadband Line Service can only be retained on a month-to-month payment plan basis.

An existing customer with a 128 Kbps (2B1Q) Broadband Line from A140.5 may request to convert to a 1.536 Mbps Broadband Line from A40.5 for use with their 128 Kbps Fractional T1 Frame Relay Service Customer Connection; the nonrecurring charges specified in A40.5 shall not apply for such conversions. Customers requesting to concurrently convert their 128 Kbps Fractional T1 Customer Connection to a 128 Kbps Subrate T1 Customer Connection shall not incur the Fractional T1 to Subrate T1 Change Charge from A140.1.3.A.3.

A140.5.3 Rates and Charges

- A. Rates and Charges for the Fast Packet Option
1. Broadband Line-FPO

(a) 128 Kbps (2B1Q)

Nonrecurring Charge	Month To	A 12 to 36 Months	B 37 to 60 Months	USOC
	Month			
\$ 450.00	\$ 105.00	\$ 92.00	\$ 77.00	FP112

A140.6 Reserved For Future Use

A140.7 Reserved For Future Use

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service

(Obsoleted 9/19/2011, Type B – Not available for new installations, additions or on transfers of service to new location.)

#### A140.8.1 General

- A. Asynchronous Transfer Mode (ATM) Service (herein referred to as ATM Service) is a data transport service based on ATM cell-based switching technology.
- B. ATM Service provides flexible connectivity using virtual connections implemented over digital facilities operating at transmission speeds of 1.536 Mbps, 44.210 Mbps, 149.760 Mbps or 599.040 Mbps. This service provides for the switching of symmetrical duplex transmissions of fixed-length ATM cells, utilizing virtual circuits. To transfer information between at least two sites a virtual circuit must be set up across the ATM network. ATM service supports the establishment of both permanent virtual circuits (PVCs) and switched virtual circuits (SVCs).

Information transmitted by ATM Service is segmented into fixed length cells, transported to and re-assembled at the specified destination. An ATM cell has a fixed length of 53 bytes. An ATM cell is broken into two main sections, the header and the payload. The payload is the portion, which carries the actual information. The header is used for network functions such as addressing and error correction.

- C. Network interface specifications for ATM Service are contained in the following documents:
  - ATM Forum document, "ATM User-Network Interface Specification" (Versions 3.0 and 3.1 and UNI Version 4.0). This document may be obtained from:
    - ATM Forum
    - 2570 West El Camino Real
    - Suite 304
    - Mountain View, CA 94040
  - Technical Reference 73585, "Asynchronous Transfer Mode (ATM) Network Interface and Performance Specifications". (T)  
This document may be obtained from:
    - BellSouth Telecommunications, Inc.
    - Regional Documentation Coordinator
    - 20th floor
    - 600 North 19th Street
    - Birmingham, AL 35203
- D. ATM Service, as provided for in this section, is offered for intraLATA use only.
- E. The **terms, conditions** and rates specified herein are in addition to the applicable **terms, conditions** and rates specified in other sections of this and other Guidebooks of the Company. (T)
- F. The rates and charges set forth for ATM Service provide for the furnishing of service where suitable facilities are available.
- G. ATM Service is only available when provided in conjunction with Broadband Line Service. Specifications for Broadband Line Service are contained in A40.5.
- H. ATM Service PVCs may be interconnected with Frame Relay Service subject to the provisions set forth in A140.1.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions

(T)

##### A. Explanation of Terms

###### 1. Customer Connection to ATM Service

The Customer Connection provides the customer with the standard interface to the ATM Service network. This interface receives the data cells from the customer's network or device and verifies that the addressing and traffic parameters are valid before relaying the cell to the specified destination. Included in the Customer Connection rate element are the customer's termination on the ATM Service switching equipment and the transport from the Serving Area Point to the switching equipment (unless specified otherwise herein). These interfaces connect the ATM Service network with digital facilities operating at transmission speeds of 1.536 Mbps, 44.210 Mbps, 149.760 Mbps or 599.040 Mbps. Unless specifically stated otherwise herein, a customer may have both PVCs and SVCs on the same Customer Connection. Unique ATM Customer Connections operating at transmission speeds of 44.210 Mbps and 149.760 Mbps are available to provide Back-Up Capability as described in A40.8.2.A.22.

A Circuit Emulation Customer Connection is available for customer requirements to interwork existing DS1 level services utilizing time division multiplexing (TDM) across public ATM networks.

Customers with ATM Service requirements between 1.536 Mbps and 44.210 Mbps at a single premises may utilize either ATM Customer Connections using Inverse Multiplexing for ATM (IMA) or ATM Subrate T3 Customer Connections to economically serve that location. IMA Customer Connections provide the customer ATM Customer Connections at speeds of 3.072 Mbps, 4.608 Mbps, 6.144 Mbps, 7.680 Mbps, 9.216 Mbps, 10.752 Mbps, and 12.288 Mbps. ATM Subrate T3 Service provides ATM Customer Connections at speeds of 18 Mbps, 24 Mbps, 30 Mbps, and 36 Mbps.

###### 2. ATM Service Network Serving Area

Certain Company Central Offices are designated by the Company as Serving Area Points for the ATM Service Network Serving Area.

A customer accessing the ATM Service network, whose Serving Wire Center is designated a Serving Area Point, requires a Broadband Line-Fast Packet Option (FPO) as described in A40.5. An ATM Service customer, whose Serving Wire Center is not designated a Serving Area Point, will use a Broadband Line-FPO to the Serving Wire Center, as well as, the Broadband Line Extension-FPO (also described in A40.5) to gain access to the closest designated Serving Area Point.

###### 3. Permanent Virtual Circuit (PVC)

A PVC is a software defined data path transporting data within the ATM Service network between two ATM Customer Connections. This data path, once defined in the network software, does not have to be established again. PVCs are end-to-end, bi-directional channels that are established via the service provisioning process.

###### 4. PVC Service Categories

PVC service categories are established to support the service requirements of various categories of customer applications for ATM PVCs. Four PVC service categories are available. The customer must specify the desired service category for each PVC that is ordered. ATM Service supports the following types of PVC service categories:

- a. Constant Bit Rate (CBR): CBR allows for applications where a PVC requires special network timing requirements (i.e., strict cell loss, cell delay and cell delay variation performance). For example, a CBR PVC would be utilized for applications requiring circuit emulation (i.e., a continuously operating logical channel) over ATM Service at transmission speeds comparable to DS1 and DS3. Such applications would include private line like service or voice type service where delays in transmission cannot be tolerated. The customer specifies the bandwidth required for each CBR PVC when it is ordered.
- b. Variable Bit Rate - Real Time (VBR-RT): VBR-RT allows for applications where a PVC requires low cell delay variation. For example, VBR-RT would be utilized for applications such as variable bit rate video compression and packet voice and video, which are somewhat tolerant of delay. The customer specifies the bandwidth required for each VBR-RT PVC when it is ordered.
- c. Variable Bit Rate - Non-Real Time (VBR-NRT): VBR-NRT allows for a PVC that can tolerate larger cell delay variations than VBR-RT. For example, VBR-NRT would be utilized for applications such as data file transfers. The customer specifies the bandwidth required for each VBR-NRT PVC when it is ordered.
- d. Unspecified Bit Rate (UBR): UBR allows for a PVC where the user does not require one of the PVC service categories described in a. through c. preceding. For example, UBR would be utilized where the customer seeks a low cost method of transporting bursty data for non-critical applications that can tolerate delay variations. The Company will attempt to deliver all ATM cells received via UBR PVCs; however, network congestion may result in loss of ATM cells.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

(T)

**A. Explanation of Terms (Cont'd)****5. PVC Traffic Parameters**

In accordance with the specifications for ATM Service set forth in the technical publications referenced in A140.8.1.C preceding, each non-UBR type PVC has a set of traffic parameters to describe the characteristics of the information being transmitted. Fixed values for these traffic parameters are derived from the PVC bandwidth specified by the customer for each PVC. These parameters are:

- a. **Peak Cell Rate (PCR)** - The PCR, in cells per second, is an upper bound on the source traffic that can be submitted on an ATM Customer Connection. PCR is a traffic parameter considered for CBR and VBR service categories.

PCR is the only traffic parameter considered for a CBR PVC; the equivalent bandwidth per CBR PVC equals the PCR, in cells per second, times 0.000424.

PCR is one of three traffic parameters considered for a VBR PVC. For a VBR-RT PVC, PCR is 200 percent of the SCR described following. For a VBR-NRT PVC, unless specified otherwise by the customer, PCR is 400 percent of the SCR described following.

- b. **Sustainable Cell Rate (SCR)** - The SCR, in cells per second, is an upper bound on the conforming average cell rate of an ATM Customer Connection over time.

SCR is a traffic parameter considered only for a VBR PVC. The equivalent bandwidth per VBR-RT PVC is equal to the SCR, in cells per second, times 0.000512. The bandwidth per VBR-NRT PVC is equal to the SCR, in cells/second, times 0.000804.

- c. **Maximum Burst Size (MBS)** - MBS is the maximum number of consecutive cells that may be transmitted at the peak cell rate.

MBS is a traffic parameter considered only for a VBR PVC. For a VBR-RT PVC, the MBS is fixed at 32 cells. For a VBR-NRT PVC, the MBS is fixed at 100 cells.

**6. PVC Segment**

For ATM Service, the PVC segment defines the logical path between a customer's premises and the ATM Customer Connection on the ATM switch. An ATM PVC segment must be provisioned by the Company via service order activity and remain in place until requested to be removed by the customer. For ATM Service, two PVC segments are mapped together through the ATM switch to create a PVC representing a virtual channel through the ATM network. To allow one customer premises to communicate with another customer premises, two ATM Customer Connections and two PVC segments are required.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

(T)

**A. Explanation of Terms (Cont'd)****7. PVC Segment Bandwidth**

A PVC Segment Bandwidth Charge is applicable for each CBR or VBR segment. Such non-UBR PVC equivalent bandwidth represents the ATM Service network resources based on the PVC's traffic parameters. The PVC Segment Bandwidth Charge is derived by multiplying the PVC segment's equivalent bandwidth (calculation following) by the appropriate PVC Segment Bandwidth Charge (expressed in megabits or increments of 64 Kbps as described following).

The following calculations are applicable for determining non-UBR PVC segment bandwidth based upon the PVC service category.

- (a) CBR equivalent bandwidth is equal to the PCR (cells per second) times 0.000424. PCR is equal to increments of 64 Kbps of equivalent bandwidth times 150.943, or megabits of equivalent bandwidth times 2358.491.
- (b) VBR-RT equivalent bandwidth is equal to the SCR (cells per second) times 0.000512. For VBR-RT service, the PCR is fixed at 200 percent of the SCR and the MBS is fixed at 32 cells. SCR is equal to increments of 64 Kbps of equivalent bandwidth times 125.000, or megabits of equivalent bandwidth times 1953.125.
- (c) VBR-NRT equivalent bandwidth is equal to the SCR (cells per second) times 0.000804. For VBR-NRT service, the PCR is fixed at 400 percent of the SCR (unless specified otherwise by the customer)<sup>1</sup> and the MBS is fixed at 100 cells. SCR is equal to increments of 64 Kbps of equivalent bandwidth times 79.602, or megabits of equivalent bandwidth times 1243.781.

Where the result from the PVC segment equivalent bandwidth calculation is greater than 1.536 Mbps, the value is expressed in units of megabits and (if a fraction of a megabit) is rounded up to the next whole megabit. This bandwidth is multiplied by the Per Megabit Bandwidth Charge.

**Note 1:** VBR-NRT equivalent bandwidth, where the PCR to SCR ratio is specified by the customer, is determined using the formula in Section 1.3.4 of Technical Reference 73585.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

##### A. Explanation of Terms (Cont'd)

##### 7. PVC Segment Bandwidth (Cont'd)

Where the result from the PVC segment equivalent bandwidth calculation is less than or equal to 1.536 Mbps, that number should be divided by .064 Mbps to arrive at a quantity of 64 Kbps increments. If the resulting number is not a whole number, it is rounded up to the next whole number and represents the number of 64 Kbps increments that should be utilized in the derivation of the PVC Segment Bandwidth Charge. This bandwidth is multiplied by the Per Increment of 64 Kbps Bandwidth Charge.

The following table illustrates the PVC segment equivalent bandwidth calculation for each non-UBR type PVC with one (1) megabit of bandwidth.

ATM PVC Service Category	Equivalent Bandwidth	Traffic Parameter		
		Peak Cell Rate <sup>1</sup>	Sustainable Cell Rate <sup>1</sup>	Maximum Burst Size <sup>2</sup>
CBR	1 Megabit	2,358	N/A	N/A
VBR-RT	1 Megabit	3,906	1,953	32
VBR-NRT	1 Megabit	4,975	1,244	100

##### 8. Switched Virtual Circuit (SVC)

An SVC is a software defined data path within the ATM Service Network between two ATM Customer Connections that is not permanent, but established on demand by the customer when information transfer is needed and then taken down after the transmission is finished by the customer.

##### 9. SVC Service Categories

SVC service categories are established to support the service requirements of various categories of customer applications for ATM SVCs. The same four service categories are available for SVCs as PVCs (i.e. CBR, VBR-RT, VBR-NRT and UBR). These service categories are described in A140.8.2.A.4 preceding.

##### 10. SVC Traffic Parameters

In accordance with the specifications for ATM Service set forth in the technical publications referenced in A140.8.1.C preceding, each non-UBR SVC has a set of traffic parameters to describe the characteristics of the information being transmitted. The traffic parameters are the same for SVCs as for PVCs; these parameters are described in A140.8.2.A.5 preceding.

##### 11. SVC Bandwidth

SVC Bandwidth is selected by the customer to accommodate the total cumulative SVC bandwidth requirements for the maximum number of simultaneous SVC calls allowed on that Customer Connection. Per SVC bandwidth requirements are determined using the same parameters specified for PVC bandwidth requirements described in Section A140.8.2.A.7.

##### 12. SVC Address

The Company assigns SVC addresses for each Customer Connection requested to transmit and/or receive SVCs. The customer provisions these addresses in his customer premises equipment (CPE). The data path for an SVC is then established on demand via the customer's CPE issuing a call setup request to the ATM switch. The setup request contains the addresses of the two ATM Customer Connections to be connected and SVC traffic contract information. This information allows the ATM switch to establish the end-to-end, bi-directional virtual circuit between the specified addresses with the appropriate bandwidth and service quality information necessary to support the customer's application. The SVC is disconnected when the customer's CPE signals a release to the ATM switch.

**Note 1:** Cells per second.

**Note 2:** Cells.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

##### A. Explanation of Terms (Cont'd)

###### 13. SVC Traffic Contract Information

Traffic contract information provided by the customer's CPE within each SVC setup consists of four major components: the SVC Service Category, the SVC Connection Traffic Descriptor, the SVC Conformance Definition and SVC Compliant Connection Definition.

- SVC Service Category:  
Service categories for SVCs are the same as described for PVC's in A140.8.2.A.4 (CBR, VBR-RT, VBR-NRT and UBR).
- SVC Connection Traffic Descriptor:  
This data identifies the rates of cell traffic to be expected with that SVC, i.e., the SVC traffic parameters are sustainable cell rate, peak cell rate and maximum burst size. The determination of SVC traffic parameters is identical to the determination of PVC traffic parameters as described in A140.8.2.A.5.
- SVC Conformance Definition:  
This data identifies how the ATM network manages the user traffic to ensure that this SVCs traffic parameters are not exceeded.
- SVC Compliant Connection Definition:  
This data determines the degree of tolerance that is afforded to a given SVC's non-conformity before it is considered non-compliant.

###### 14. SVC Bundles

ATM SVCs are offered in bundles of 5 SVCs as a rate element. For each bundle of 5 SVCs, a customer may have 5 simultaneous SVC calls. The customer determines the total maximum number of simultaneous SVC calls that will be required over his Customer Connection and selects the number of bundles which will meet this need.

###### 15. SVC Point-to-Point and Point-to-Multipoint Capability

SVCs can be either point-to-point or point-to-multipoint connections.

- A point-to-point SVC connects two ATM SVC addresses and is bi-directional.
- A point-to-multipoint SVC connects a single originating SVC address to multiple destination SVC addresses and is unidirectional (permitting only the originating SVC address to transmit and the destination SVC addresses to receive). The originating SVC address specifies the destination addresses for each specific SVC connection. All cell replication is done within the ATM Service network. The customer's CPE must be capable of initiating point-to-multipoint connections.

###### 16. SVC Closed User Group (CUG)

A SVC Closed User Group (CUG) may be established by an ATM customer in association with Customer Connections capable of transmitting SVCs. A CUG will restrict the requested SVC addresses to communicate with only the other ATM SVC addresses identified within its CUG; this precludes any SVC address to transmit or receive SVCs to/from any other SVC address not identified as a part of the CUG. An individual Customer Connection equipped for SVCs may be a part of more than one CUG.

###### 17. ATM Circuit Emulation Service

ATM Circuit Emulation Service allows the interworking of ATM Service with time division multiplexing (TDM) services at a DS1 level. ATM Circuit Emulation allows the encapsulation of DS1 level TDM Service into ATM cells by using AAL1 adaptation. (Adaptation defines how higher layer information such as voice, data and video are placed in the payload of the 53-byte ATM cells.) ATM Circuit Emulation Service is provided to emulate a structured or unstructured DS1 service; when provided to emulate a structured DS1, service may be requested with or without Channel Associated Signaling (CAS).

###### 18. ATM Customer Connection Using Inverse Multiplexing for ATM Service (IMA)

A customer requiring more ATM bandwidth than 1.536 Mbps but less than 44.210 Mbps, can economically utilize IMA to achieve ATM speeds in multiples of 1.536 Mbps and thereby avoid subscribing to a 44.210 Mbps Customer Connection. IMA is a physical layer technology in which a high-speed cell stream is broken down and transported across multiple 1.536 Mbps links, then reconstructed back into the original stream at the ATM switch or other associated ATM equipment. IMA Customer Connections are available at speeds in multiples of 1.536 Mbps (in quantities from 2 to 8) which results in ATM Customer Connections of 3.072 Mbps, 4.608 Mbps, 6.144 Mbps, 7.680 Mbps, 9.216 Mbps, 10.752 Mbps, and 12.288 Mbps.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

##### A. Explanation of Terms (Cont'd)

###### 19. Feature Change Charge

A Feature Change Charge is a nonrecurring charge which applies whenever a change is made (at the customer's request) to add or change ATM service as specified in A140.8.2.C.1.e..

###### 20. Serving Area Point (SAP)

A Serving Area Point (SAP) is a Company Central Office that is designated as a member of the ATM Service Network Serving Area. (See the explanation of ATM Service Network Serving Area preceding.)

###### 21. Oversubscription

A customer may establish multiple virtual circuits (VCs, which are PVCs and/or SVCs) on an ATM Service Customer Connection.<sup>1</sup> VCs with a VBR service category are eligible to subscribe to more than the available equivalent bandwidth on the Customer Connection after bandwidth for CBR is assigned. This is called oversubscription. This allows the customer to take advantage of the fact that not all of these VCs will be active simultaneously. However, the network's apparent performance will be degraded if the customer attempts to make use of this overbooked commitment (or oversubscription) beyond the capacity of the ATM Service Customer Connection. In the worst case, attempts to fully utilize such overbooked commitment may appear to the customer as network unavailability.

The amount of oversubscription (expressed as a percentage) for a Customer Connection will be determined by:

$$\frac{\text{Sum of VBR equivalent bandwidths}}{\text{Customer Connection speed} - \text{sum of CBR equivalent bandwidths}} \text{ times } 100$$

In order to qualify for Network Service Level Agreements (SLAs) (as specified in B.6.), an ATM service Customer Connection may only oversubscribe PVC VBR bandwidth up to 200% according to the specific formula below, which also seeks to exclude SVC bandwidth from the total available bandwidth. In the event the customer exceeds this oversubscription limit, Network SLA credits will not be issued. The customer then must either upgrade their ATM Service Customer Connection speed or subscribe to an additional Customer Connection(s) to remain less than or equal to the 200% oversubscription limit to qualify for future Network SLA crediting.

$$\frac{\text{Sum of PVC VBR equivalent bandwidths}}{\text{Customer Connection speed} - \text{SVC bandwidth} - \text{sum of CBR equivalent bandwidths}} \text{ times } 100$$

###### 22. Back-Up Capability

Back-Up Capability is available on an optional basis (via unique Back-Up Customer Connections with transmission speeds of either 44.210 Mbps or 149.760 Mbps) and provides the customer with the ability to have a back-up logical port configured to his PVC service needs in the event that the customer's primary connection at 44.210 Mbps or 149.760 Mbps is disabled. A Back-Up Customer Connection utilizes a Broadband Line (with Broadband Line Extension Service, as appropriate). Both the Back-Up Customer Connection and its associated Broadband Line Service are specifically dedicated to providing back-up service and remain idle except when being utilized for back-up purposes.

**Note 1:** The maximum VBR oversubscription allowed on a Subrate T3 Customer Connection (any speed) is 200%.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

##### A. Explanation of Terms (Cont'd)

###### 22. Back-Up Capability (Cont'd)

The customer must prearrange with the Company which primary Customer Connections(s) may be directed to a specific Back-Up Customer Connection so that the necessary work is done by the Company which is required prior to back-up capability being possible. An ATM Customer Connection so identified which may be redirected in the event of a failure is referred to as a back-up enabled primary Customer Connection, or referred to herein as simply the primary Customer Connection. An ATM primary Customer Connection may only utilize an ATM Back-Up Customer Connection. A primary Customer Connection must be in the same ATM Network Serving Area as its Back-Up Customer Connection. A primary Customer Connection may have only one Back-Up Customer Connection identified. A Back-Up Customer Connection may serve as the back-up for more than one primary Customer Connection; however, a Back-Up Customer Connection may only be actively in use with one primary Customer Connection at any given time. The Back-Up Customer Connection must be the same size as the customer's largest primary Customer Connection.

The Back-Up Customer Connection is manually activated by the Company when the customer requests service from a primary Customer Connection to be redirected to its pre-identified Back-Up Customer Connection. All PVCs associated with the primary Customer Connection are rerouted to the Back-Up Customer Connection<sup>1</sup>. As a technical limitation, Back-Up Capability does not function in association with SVCs; if a primary Customer Connection with both PVCs and SVCs is redirected to its Back-Up Customer Connection, only the PVCs will be redirected and operational.

A Back-Up Customer Connection is not eligible for Network Service Level Agreements (SLAs) specified in B.6.

##### B. Basis of Offering

1. Detailed monthly billing is not provided.
2. Suspension of service is not allowed.
3. Obligations of Customer and Company
  - a. The Company is not responsible for the installation, operation, or maintenance of any equipment provided by the customer.
  - b. The customer is responsible for the provision and maintenance of all Customer Provided Equipment (CPE) and to ensure that the operating characteristics of this equipment are compatible with and do not interfere with the service offered by the Company.
  - c. The maximum number of virtual channels (PVC segments plus simultaneous SVCs) allowed per Customer Connection are specified in Technical Reference 73585.
4. In order to maintain the quality of ATM Service, the Company reserves the right to perform preventive maintenance of software updates to the network. This could result in ATM Service being unavailable during the time period between 2:00 A.M. and 4:00 A.M. Eastern Time on any given Wednesday or Sunday morning. However, the Company expects only to utilize this maintenance window for any given switch on the average of once a quarter. In addition, the Company will make every reasonable effort to provide advance notice to those customers likely to be severely affected by such maintenance work. This maintenance window may be adjusted by the Company upon written notice to the customer.
5. The minimum service period is 12 months.

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**Note 1:** To appropriately provision new PVCs ordered subsequent to a primary Customer Connection being enabled for Back-Up Capability, subsequent orders for PVCs should specify that the PVCs are being requested in association with a primary Customer Connection.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

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**B. Basis of Offering (Cont'd)****6. Service Level Agreement**

ATM Service includes Service Level Agreements (SLAs) which specify the Company's provisioning, repair and performance commitments for ATM Service in specific areas. Provisioning and repair commitments are measured on a per occurrence basis. Network service level commitments are monthly performance measurements. The following service measurements will outline the service levels that the Company will deliver to its ATM customers.

**Provisioning and Repair:**

- ATM Installation Interval
- ATM Time-To-Repair

**Network Service Levels:**

- ATM Network Availability
- ATM Cell Loss Ratio
- ATM Cell Delivery Rate

Service Level Commitments will define ATM Service measurements that the Company agrees to provide every customer. If the Company fails to meet a Service Level Commitment, the customer is eligible for a SLA credit. Credits for missed Network Service Level Commitments will only be available to customers subscribing to the Gold Package in Customer Network Management from A140.12. Billing credits which may apply if the Company does not meet the objectives associated with these stated SLAs (specifically covering rates for ATM Service and associated Broadband Line Service from Section A40.) are provided as set forth in c. following. Credits only apply for portions of service supplied by the Company.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

##### B. Basis of Offering (Cont'd)

##### 6. Service Level Agreement (Cont'd)

##### a. SLA Service Level Commitments

The Company's Service Level Commitments for ATM Service are as follows:

- ATM Installation Interval - Standard Interval
- ATM Time-To-Repair on customer sites within the ATM Network Serving Area - 4 hours
- ATM Network Availability on a customer's network within the ATM Network Serving Area – 99.9%
- ATM Cell Loss Ratio – 1%
- ATM Cell Delivery Rate with CBR Class of Service – 99.99%
- ATM Cell Delivery Rate with VBR real-time Class of Service – 99.9%
- ATM Cell Delivery Rate with VBR non real-time Class of Service – 99.5%

##### b. SLA Restrictions

The Company will implement SLA provisioning restrictions that will define customer network design requirements and limitations to the Company's commitment to meet Service Levels for ATM Service. Customer network design requirements are intended to limit or negate the Company's obligation to provide SLA credits when the customer has under-engineered their ATM network. The customer network design requirements are as follows:

- The customer's network must have a minimum of 10 Customer Connections for the Company to provide SLA credits.
- The total VBR equivalent bandwidth on all PVCs (after the CBR bandwidth is subtracted) carried by any of the customer's ATM Customer Connections may not be greater than 200% of the Customer Connection speed (oversubscription).
- A customer must be subscribing to the Gold Package in Customer Network Management (CNM) from A140.12 to receive credits for missed Network Service Level Commitments. Customer Connections at both ends of a PVC must have the CNM Gold Package or equivalent. In the event only one end of a PVC is ordered from this Guidebook, credits will only be issued for the rate elements ordered from this Guidebook.

SLA credits do not apply when any stated objective is not met because the Company does not have control over the circumstances causing the objective to be missed. Situations over which the Company does not have control can be defined as, but not limited to, the following:

- any act, any omission or negligence on the part of the customer, any other customer or any third party, or of any other entity providing a portion of the service,
- labor difficulties, governmental orders, civil commotions, declared National Emergencies, criminal actions against the Company, acts of God, war, or other circumstances beyond the Company's control,
- the customer's premises equipment,
- unavailability of the customer's facilities and/or equipment, and
- customer oversubscription of ATM Service Customer Connections.

SLA commitments only apply for service wholly within Company territory. SLA commitments will not apply for circuits which are part of a jointly provided service. SLA commitments do not apply for service provided by other telephone companies concurring in the rates, *terms and conditions* of the Company.

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## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

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#### B. Basis of Offering (Cont'd)

##### 6. Service Level Agreement (Cont'd)

##### b. SLA Restrictions (Cont'd)

The customer must request a credit within one calendar month of the Company missing an ATM Service Level Commitment. The Company will investigate customer requests for any SLA credits to determine the cause of any performance failures reported by the customer. The Company will investigate the customer's request over a period of up to 45 calendar days. The 45-day period will begin when the customer makes the request for credit with their Sales Representative. SLA credits will be provided to the customer if the Company determines that they had control over the circumstances causing the failure. If the Company determines that these failures are the result of oversubscription of ATM Service Customer Connections, the Company will provide the customer with the reports documenting the oversubscription and Network SLA credits will not be issued. The customer will be required to upgrade their ATM Service Customer Connections or no future SLA credits will be allowed on that ATM Service Customer Connection(s).

When a customer requests a SLA credit for ATM Network Availability, all requests for a calendar month must be submitted at the same time. For example, the customer receives a SLA report on May 1<sup>st</sup> providing a report on April performance. Any requests for Network Availability SLA credits on Customer Connections for the month of April must all be submitted together.

##### c. SLA Credits for ATM Service Level Commitments

The following credits will apply when the Company misses a Service Level Commitment (each credit is described in (1) thru (5) following):

- ATM Installation Interval – Credit non-recurring installation charge paid by the customer
- ATM Time-To-Repair – Credit one day of Monthly Recurring Charge (MRC)
- ATM Network Availability – Credit one day of MRC
- ATM Cell Loss Ratio – Credit MRC
- ATM Cell Delivery Rate – Credit MRC

The SLA credit amount will be determined by applying the credits outlined above to the rate elements or total billed revenues specified following.

- (1) ATM Installation Interval Credit - this credit will only apply to the installation or upgrade of an ATM Customer Connection. The credit will be equal to the nonrecurring installation charge for the Customer Connection, Broadband Line and Broadband Line Extension. The credit will not apply to expedited installations or to installations where no facility and/or switch exist. If on the due date the customer is not ready or in a case where another of the customer's service providers (including the customer's provider of customer premises equipment, interexchange service, or other local service provider) is not ready, the Company is not liable for missing the due date and SLA credits do not apply.
- (2) ATM Time-To-Repair Credit - this credit will require that the customer report the problem to the *Company's* Repair Center. The repair interval will start with the time entered on the trouble ticket. The Service Level Commitment measurement will be based on each individual trouble ticket for a Customer Connection. Multiple trouble tickets on the same day for the same Customer Connection will only be eligible for one time-to-repair credit. The credit will be one day of the MRC for the Customer Connection and Broadband Line. Credits on any individual Customer Connection for a calendar month cannot exceed the MRC for the Customer Connection and Broadband Line.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)**

(T)

**A140.8.2 Terms and Conditions (Cont'd)****B. Basis of Offering (Cont'd)**

## 6. Service Level Agreement (Cont'd)

## c. SLA Credits for ATM Service Level Commitments (Cont'd)

- (3) ATM Network Availability – this credit will apply in the event that the measurement for the customer's network is missed. The credit will then be for each ATM Customer Connection which does not meet the 99.9% availability commitment. The credit will be one day of the MRC of the ATM Customer Connection and the Broadband Line. The unavailability of a Customer Connection will be calculated from the trouble tickets submitted for the Customer Connection. The unavailability of a customer's network will be calculated from the trouble tickets submitted for each Customer Connection within the customer's network. The Service Level Commitment will be calculated by first subtracting the unavailable time from the total available time for a particular calendar month and then dividing it by the total available time. Included in available time are scheduled maintenance windows and time the network was unavailable due to circumstances outside the Company's control.
- (4) ATM Cell Loss Ratio - measurement will be on each ATM PVC. The credit will be equal to the MRC for the PVC Segment Charge of the VPI/VCI pair making up the PVC.
- (5) ATM Cell Delivery Rate - measurement will be on each ATM PVC. The credit will be equal to the MRC for the PVC Segment Charge of the VPI/VCI pair making up the PVC.



## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

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##### C. Provision of Service

##### 1. Rates and charges contained in this Section consist of the following elements:

##### a. Customer Connection to ATM Service

- (1) The ATM Customer Connection rate element includes the termination on the ATM switching equipment and the transport from ATM Serving Area Points to that switch (unless specified otherwise herein). A minimum of one Customer Connection is required per customer to subscribe to ATM Service.

Rates for the following ATM Customer Connections at speeds of 1.536 Mbps, IMA, Subrate T3 and 44.210 Mbps are flat rated based upon the average airline distance of ATM Serving Area Points from the ATM switch within a Network Serving Area: 1.536 Mbps (including Circuit Emulation<sup>1</sup>), 3.072 Mbps, 4.608 Mbps, 6.144 Mbps, 7.680 Mbps, 9.216 Mbps, 10.752 Mbps, 12.288 Mbps, 18 Mbps, 24 Mbps, 30 Mbps, 36 Mbps, and 44.210 Mbps.

Rates for an ATM Customer Connection at speeds of 149.760 Mbps and 599.040 Mbps may include two components. A fixed charge applies per 149.760 Mbps or 599.040 Mbps ATM Customer Connection. In addition, a Per Mile Charge applies if the ATM switch is not located in the customer's Serving Wire Center. Airline distance will be calculated from the customer's Serving Area Point to the Company Central Office where the ATM switch is located within that Network Serving Area. Fractions of miles will be rounded up to the nearest whole mile.

- (2) The unique Back-Up Customer Connection rate elements provided at 44.210 Mbps and 149.760 Mbps are structured the same as standard ATM Customer Connections for those same transmission speeds as described in (1) preceding.

##### b. PVC Feature Charges

PVC Feature Charges are required to establish PVC connections across the ATM network.

- (1) PVC Segment Charge - A PVC Segment Charge applies for each PVC segment established over a Customer Connection. A PVC Segment Charge is applicable under all ATM PVC service categories.
- (2) PVC Segment Bandwidth Charge - A PVC Segment Bandwidth Charge is required per PVC segment established under the CBR or VBR PVC service category (but is not applicable to UBR PVCs). PVC bandwidth represents ATM Service network resources required for the non-UBR PVC and is based on the non-UBR PVC's traffic parameters (i.e., PCR, SCR, and MBS). The total charge for this rate element per segment is determined by multiplying the non-UBR PVC segment bandwidth by the PVC Segment Bandwidth Charge, either Per Megabit or Per Increment of 64 Kbps (as appropriate per A140.8.2.A..7.).
- (3) UBR Service Activation Charge - A UBR Service Activation Charge is applicable for each Customer Connection over which UBR PVCs will traverse. One charge is applicable per Customer Connection regardless of how many UBR PVCs will traverse that Customer Connection.

##### c. Inter-Network Serving Area Link PVC Feature Charges (Refer to A140.8.2.C.4.b)

**Note 1:** The Unstructured Circuit Emulation – PRI over ATM Customer Connection is flat rated; however, specific charges apply as set forth in A140.8.2.C.7.a.(1) for mileage between the ATM switch providing circuit emulation capability and the Primary Rate ISDN switch.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

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**C. Provision of Service (Cont'd)****1. Rates and charges contained in this Section consist of the following elements: (Cont'd)****d. SVC Feature Charges**

SVC Feature Charges are required to enable Customer Connections to establish SVC connections across the ATM network.

- (1) SVC Service Activation Charge - The SVC Service Activation Charge applies per Customer Connection, which is requested to be enabled to transmit and/or receive SVCs.
- (2) SVC Bundles - For each Customer Connection activated for SVCs, the customer must determine the maximum number of simultaneous SVC calls that Customer Connection should be sized to accommodate. The rate element for an SVC Bundle provides the capability for up to 5 simultaneous SVC calls. The customer determines how many bundles, or increments of 5 simultaneous SVC calls, are required for each Customer Connection. Where less than 5 simultaneous SVC calls are required, the customer is required to purchase a minimum of one bundle.
- (3) SVC Bandwidth - For each Customer Connection activated for SVCs, the customer must determine the bandwidth required to accommodate the total volume of simultaneous SVC calls, or total number of SVC bundles, selected for each Customer Connection. Bandwidth represents the ATM Service network resources that will be utilized for that Customer Connection based upon its total SVCs' traffic parameters.

Where the bandwidth required per Customer Connection activated for SVCs is greater than 1.536 Mbps, the SVC bandwidth value is expressed in units of megabits and (if a fraction of a megabit) is rounded up to the next whole megabit. This bandwidth is multiplied by the SVC Per Megabit Bandwidth Charge.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

##### C. Provision of Service (Cont'd)

##### 1. Rates and charges contained in this Section consist of the following elements: (Cont'd)

##### d. SVC Feature Charges (Cont'd)

##### (3) (Cont'd)

Where the bandwidth required per Customer Connection activated for SVCs is less than or equal to 1.536 Mbps, that number should be divided by .064 Mbps to arrive at a quantity of 64 Kbps increments. If the resulting number is not a whole number, it is rounded up to the next whole number and represents the number of 64 Kbps increments that should be utilized in the derivation of the SVC Bandwidth Charge. This bandwidth is multiplied by the SVC Per Increment of 64 Kbps Bandwidth Charge.

##### (4) SVC Closed User Group (CUG)

Nonrecurring charges apply for each customer requested CUG.

A Per Group nonrecurring charge applies per CUG at the time of initial establishment of that CUG. A Feature Change Charge is applicable for each subsequent request to change the parameters of an existing CUG; the Per Group nonrecurring charge is not applicable for such requests.

A Per Entry nonrecurring charge applies per SVC Address (on an ATM SVC Customer Connection enabled for SVC capability) which is requested by the customer to be included in a CUG. The Per Entry nonrecurring charge applies for each SVC Address requested to be included in a CUG at the time the CUG is established. The Per Entry nonrecurring charge also applies for each SVC Address requested to be included in an already established CUG.<sup>1</sup>

Customer requests to change an SVC Address from being included in one CUG to another CUG shall be treated as a disconnect from the CUG the SVC Address is deleted from (at no charge) and as a new entry to the other CUG (where a Per Entry nonrecurring charge shall be applicable.<sup>1</sup>)

##### e. Feature Change Charge

A Feature Change Charge applies for a customer request to change an existing ATM Service PVC feature from A140.8.3.B. and C. for which there is no nonrecurring charge. One Feature Change Charge applies per service order to perform the work requested by the customer. (Examples: A Feature Change Charge applies when a customer requests a change in the PVC segment bandwidth required on an existing non-UBR PVC. A Feature Change Charge applies when a customer requests that UBR Service Activation be added to an existing ATM Customer Connection which currently is not activated to carry UBR PVCs if the request does not also include an order for a UBR PVC Segment which carries a nonrecurring charge. A customer request to change the service category of an existing CBR PVC to a VBR-RT PVC would not involve a Feature Change Charge but would be treated as a disconnect of the CBR PVC and a new request for a VBR-RT PVC for which there is a nonrecurring charge.)

Only one Feature Change Charge applies per customer request that involves changes to multiple existing PVCs of the same PVC service category that are provisioned out of the same ATM switch. (For example, one Feature Change Charge would apply per customer request to change the PVC segment bandwidth associated with two existing CBR PVCs provisioned out of the same ATM switch.)

A Feature Change Charge applies for a customer request to increase or decrease the quantity of SVC Bundles<sup>2</sup> and/or SVC Bandwidth associated with an existing ATM Customer Connection equipped for SVCs. One Feature Change Charge applies per service order required to perform the work requested by the customer.

A Feature Change Charge applies for a customer request to change the parameters on an existing SVC CUG.

##### 2. Certain Company Central Offices are designated by the Company as Serving Area Points (SAPs) for the ATM Service Network Serving Area. A customer accessing the ATM Service network, whose Serving Wire Center is designated a SAP, will only require a Broadband Line-FPO as described in A40.5. An ATM Service customer, whose Serving Wire Center is not designated a SAP, will require a Broadband Line-FPO to the Serving Wire Center as well as a Broadband Line Extension-FPO (also described in A40.5) to gain access to the closest designated SAP.

**Note 1:** The application of a Feature Change Charge is not required for such requests.

**Note 2:** The nonrecurring charge per SVC Bundle applies for each additional SVC Bundle requested.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

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##### C. Provision of Service (Cont'd)

3. Charges for installing ATM Service are included in the respective nonrecurring charges specified herein. Service Charges from Section A4. are not applicable for installing such services. Charges applicable for customer requested change of service installation due date and cancellation of service installation are as specified in Section A140.9.
4. Should a customer, having locations in more than one Company ATM Network Serving Area within a LATA, desire to send PVC data traffic between these locations, the customer can interconnect these locations through the following two options:
  - a. **Dedicated Connection:**  
The customer subscribes to additional Customer Connections (in each Network Serving Area) which are enabled to support inter-serving area connectivity and Broadband Line Extension-FPOs<sup>1</sup> to connect them. These additional rate elements will be used solely to transport this customer's data traffic between affected ATM Network Serving Areas. PVC and SVC Feature Charges apply for VCs through each connection except when these connections have been specifically requested by the customer to be provisioned as customer specific trunks.
  - b. **Shared Connection:**  
The Company may establish facilities between ATM Service switching equipment in different Network Serving Areas in the same LATA and may allow customers to share bandwidth on these facilities; where these shared facilities are available to customers, a shared connection is an option. The customer must establish one or more Inter-Network Serving Area Links (INSAL) that extend between ATM switches.
    - (1) Where the customer wishes to extend PVC Service, one PVC exists between both customer premises through each link. Charges for the PVC Inter-Network Serving Area Link are applied as follows:
      - the PVC Inter-Network Serving Area Link Establishment is charged at each end of the link per PVC,
      - for CBR or VBR PVCs, the appropriate PVC Inter-Network Serving Area Link PVC Bandwidth Charge is applicable for each end of the link per PVC; for UBR PVCs, an Inter-Network Serving Area UBR PVC Service Activation Charge applies per PVC for each end of the link, and
      - no additional PVC Segment Charges apply.
5. In some cases, the Company and another Incumbent Local Exchange Company that offers ATM technology will jointly connect ATM switching equipment within a LATA to provide customers the ability to interconnect their locations served by the different companies. In order to utilize the Company's portion of this jointly provided shared connection for PVC traffic, the customer must subscribe to one end of a PVC Inter-Network Serving Area Link with either an Inter-Network Serving Area Link PVC Bandwidth Charge (per CBR or VBR PVC) or a PVC Inter-Network Serving Area Link UBR Service Activation Charge (per UBR PVC).
6. For customer locations within Company LATAs served by an Incumbent Local Exchange Carrier other than the Company the appropriate ATM Customer Connection charge for mileage associated with transmission speeds of 149.760 Mbps and 599.040 Mbps will be determined by using the airline distance from the switch location to the Company central office within the ATM Network Serving Area which is the closest designated SAP.
7. Circuit Emulation Service provides for the emulation of a time division multiplexed (TDM) DS1 circuit through the ATM network so that the customer may interwork TDM services with their ATM Service. The customer is responsible for the appropriate charges for such TDM services from other service publications in addition to the charges specified herein for ATM Service.

An Unstructured versus Structured Circuit Emulation Customer Connection is selected based upon the customer's specific DS1 needs to respectively interwork an unstructured versus structured DS1 TDM service with ATM Service.

**Note 1:** The mileage utilized to determine the Broadband Line Extension associated with a Dedicated Connection at speeds equal to or less than 44.210 Mbps is measured from Serving Area Point to Serving Area Point between the two involved Network Serving Areas. The mileage utilized to determine the Broadband Line Extension associated with a Dedicated Connection at speeds of 149.760 Mbps or 599.040 Mbps is measured between the serving wire centers in each Network Serving Area where the ATM switches are located.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

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#### C. Provision of Service (Cont'd)

##### 7. (Cont'd)

- a. An Unstructured Circuit Emulation Customer Connection accepts the termination of a full DS1 TDM bit stream.

- (1) A unique Unstructured Circuit Emulation Customer Connection is provided to accept the termination of a full DS1 TDM bit stream from a Primary Rate ISDN Service. One Unstructured Circuit Emulation Customer Connection - PRI over ATM rate element is required per Primary Rate ISDN Interface. One ATM CBR PVC Segment with 2 Megabits of CBR PVC Segment Bandwidth shall apply in association with the service originating from each Primary Rate ISDN Interface to the ATM Switch. (Additionally, the standard charges apply for the corresponding 2 Megabit ATM CBR PVC Segment to which this is mapped within the ATM switch, which is requested on the ATM Customer Connection associated with the customer's premises.)

Appropriate rate elements for the Primary Rate ISDN Service when so terminated in ATM Service are as set forth in A42.3. Only Primary Rate ISDN Service provided from a central office which is a Serving Area Point within the same ATM Service Network Serving Area as the customer premises to which the service is to be transported may utilize this option. If the ATM switch used to provide the circuit emulation capability for the Primary Rate ISDN Service is not in the same central office as the Primary Rate ISDN switch, interoffice mileage charges from the Primary Rate ISDN Service shall apply between these two switch central offices.

The ATM Customer Connection (associated with the customer premises) to which the PVC segment associated with the Unstructured Circuit Emulation Customer Connection – PRI over ATM may be mapped must be a transmission speed of Subrate T3 or higher in order to accept the 2 Megabit CBR PVC associated with this service.

The PVC Segment associated with the Unstructured Circuit Emulation Customer Connection - PRI over ATM may only be mapped to a PVC Segment associated with a local ATM Service Customer Connection whose service terminates to a premises within the same LATA as the Primary Rate ISDN Service switch. The provision of the Primary Rate ISDN Service (via the Unstructured Circuit Emulation Customer Connection - PRI over ATM) to the premises associated with the local ATM Service Customer Connection must be in accordance with all *terms and conditions* governing the provisioning of local exchange service via Primary Rate ISDN Service.

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- (2) An Unstructured Circuit Emulation Customer Connection is provided to accept the termination of a full DS1 TDM bit stream from the customer's premises through a 1.536 Mbps Broadband Line Service. One Unstructured Circuit Emulation Customer Connection - Other TDM over ATM is required per such DS1 TDM service. One ATM CBR PVC Segment with 2 Megabits of CBR PVC Segment Bandwidth shall apply in association with the service originating from the TDM premises to the ATM Switch. Additionally, the standard charges apply for the corresponding 2 Megabit ATM CBR PVC Segment to which this is mapped within the ATM switch; the associated ATM Customer Connection must be a transmission speed or type which can accept the 2 Megabit CBR PVC.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.2 Terms and Conditions (Cont'd)

(T)

#### C. Provision of Service (Cont'd)

##### 7. (Cont'd)

- b. A Structured Circuit Emulation Customer Connection accepts up to 24 DS0 terminations from a channelized DS1 bit stream(s) from the customer (e.g., MegaLink Service with MegaLink Channel Service). Where MegaLink Service is used, the customer is responsible for paying the appropriate charges for MegaLink Service and MegaLink Channel Service. MegaLink Channel Service Broadband Line Service Feature Activation Charges apply for each DS0 termination to be directed to the Structured Circuit Emulation Customer Connection. The customer specifies the desired grouping of such DS0 terminations into ATM PVCs. An ATM CBR PVC Segment and Bandwidth Charges<sup>1</sup> apply for each PVC requested in association with the service originating from the TDM premises to the ATM Switch. Additionally, the standard charges apply for the corresponding ATM CBR PVC Segments to which these are mapped within the ATM switch.

A Structured Circuit Emulation Customer Connection is available with or without Channel Associated Signaling (CAS)<sup>2</sup> and is specified by the customer when service is ordered. CAS is necessary to support channelized DS1 TDM applications requiring DS1 Robbed Bit Signaling support.

8. A customer requiring connectivity to ATM Service greater than 1.536 Mbps but less than 44.210 Mbps may select ATM Service Customer Connections Using IMA. An IMA Customer Connection allows the customer to select an ATM Customer Connection at a speed that is an even multiple of 1.536 Mbps service. IMA Customer Connections are available at speeds of 3.072 Mbps, 4.608 Mbps, 6.144 Mbps, 7.680 Mbps, 9.216 Mbps, 10.752 Mbps, and 12.288 Mbps. To access an IMA Customer Connection, the customer subscribes to the appropriate quantity of 1.536 Mbps Broadband Lines and Broadband Line Extensions to equal the bandwidth of the IMA Customer Connection. A reference chart is provided in A40.5.3.A.3.
9. The appropriate nonrecurring charges for an existing IMA Customer Connection to be changed to another speed of IMA Customer Connection shall be the appropriate nonrecurring charges from Section A40.5 for any additional Broadband Line Service plus the full nonrecurring charges from Section A140.8 for the new speed IMA Customer Connection requested and any associated PVC Features.
10. A customer requiring connectivity to ATM Service greater than 1.536 Mbps but less than 44.210 Mbps may select an ATM Subrate T3 Customer Connection. ATM Subrate T3 Customer Connections are available at speeds of 18 Mbps, 24 Mbps, 30 Mbps and 36 Mbps.

Several technical limitations exist in association with the provisioning of ATM Subrate T3 Service. An ATM Subrate T3 Customer Connection is provisioned utilizing 44.210 Mbps of transport bandwidth (e.g., a 44.210 Mbps Broadband Line Service); no other service(s) may utilize the remaining bandwidth. While an ATM Subrate T3 Customer Connection can simultaneously support both PVCs and SVCs, bandwidth reserved for SVCs is not available for use by PVCs (and vice versa). UBR PVCs and UBR SVCs are not allowed on an ATM Subrate T3 Customer Connection.

**Note 1:** PVC Segment Bandwidth charges shall be based upon the equivalent bandwidth required for each PVC requested. The transport of TDM service as ATM Circuit Emulation Service requires additional overhead, sometimes referred to as "cell tax". Consequently, the bandwidth required for a given PVC will be greater than the sum of the DS0 TDM bandwidth. For example, the PVC resulting from a single DS0 TDM bit stream of 64 Kbps will be greater than 64 Kbps as a result of the equivalent bandwidth required for overhead and will require two Increments of 64 Kbps Bandwidth per CBR PVC Segment.

**Note 2:** However, Channel Associated Signaling (CAS) may not be available at all ATM switch locations.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

(T)

**C. Provision of Service**

11. To have ATM Back-Up Capability as an option for a 44.210 Mbps or 149.760 Mbps Customer Connection, the customer is required to have an ATM Service Back-Up Customer Connection and a separate Broadband Line (with Broadband Line Extension Service, as appropriate) which are designated specifically for back-up purposes. Monthly rates and nonrecurring charges applicable for a Back-Up Customer Connection are provided in A140.8.3.A following. Monthly rates and nonrecurring charges for Broadband Line Service are found in A40.5.

The activation of a Back-Up Customer Connection via the rerouting of traffic from a primary Customer Connection to the Back-Up Customer Connection is a manual operation performed by the Company at the direction of the customer. At the direction of the customer, the Company will subsequently then redirect traffic from the Back-Up Customer Connection to the primary Customer Connection.

A Primary Customer Connection Back-Up Enablement/Change Charge provided in A140.8.3.A is applicable per existing primary Customer Connection which is requested by the customer to be back-up enabled and is billed to each primary Customer Connection account. A Primary Customer Connection Back-Up Enablement/Change Charge is also applicable for each existing back-up enabled primary Customer Connection when the customer requests a reassignment of that primary Customer Connection to a different Back-Up Customer Connection.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES****A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)****A140.8.2 Terms and Conditions (Cont'd)**

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**D. Contract Plans**

1. Contract plans as specified in the Fast Packet Services Payment Plan (SPP) in A40.10 with contract periods are described as follows:
  - a. Term Payment Plan A - payment periods may be selected from 12 to 36 months.
  - b. Term Payment Plan B - payment periods may be selected from 37 to 60 months.
2. (DELETED)
3. To be included under a Fast Packet Services Payment Plan, PVC Features and SVC Features must be associated with Customer Connections also under a Fast Packet Services Payment Plan. The length of the Fast Packet Services Payment Plan for the PVC Features and SVC Features cannot be for a longer period than the associated Customer Connection. A Termination Liability Charge will not be applicable for the disconnection of PVC Features and SVC Features set forth in A140.8.3.B., C., and D. that are selected under the Fast Packet Services Payment Plan.
4. A Termination Liability Charge will not apply to ATM Service terminated on or after the date ATM Service became an obsolete service offering.



**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)**

**A140.8.3 Rates and Charges**

**A. Customer Connection to ATM Service**

	Nonrecurring Charge	Month To Month	A 12 To 36 Months	B 37 To 60 Months	USOC	
(DELETED)						(D)
1. 44.210 Mbps ATM Service						(T)
(a) Per Customer Connection	\$1,225.00	\$5,250.00	\$4,200.00	\$2,550.00	ATA4F	
(DELETED)						(D)

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## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)**

#### **A140.8.3 Rates and Charges (Cont'd)**

##### **A. Customer Connection to ATM Service (Cont'd)**

**(DELETED)**

(D)

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)

#### A140.8.3 Rates and Charges (Cont'd)

##### B. PVC Feature Charges

(DELETED)

(D)

	Nonrecurring Charge	Month To Month	A 12 To 36 Months	B 37 To 60 Months	USOC
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(DELETED)

(D)

##### I. Variable Bit Rate - Non-Real Time (VBR-NRT) Service Category

(D)

(T)

(a)	PVC Segment Charge, Per Segment	\$70.00	\$5.00	\$5.00	\$5.00	ATANS
(b)	Per Megabit <sup>1</sup> Bandwidth Charge, Per Segment	-	40.00	40.00	40.00	ATANM
(c)	Per Increment of 64 Kbps <sup>2</sup> Bandwidth Charge, Per Segment	-	2.60	2.60	2.60	ATANK

**Note 1:** The Per Megabit Bandwidth Charge is applicable per PVC segment for PVCs with bandwidth greater than 1.536 Mbps.

**Note 2:** The Per Increment of 64 Kbps Bandwidth Charge is applicable per PVC segment for PVCs with bandwidth less than or equal to 1.536 Mbps.

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)**

**(DELETED)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

**A140.8 Asynchronous Transfer Mode (ATM) Service (Cont'd)**

**(DELETED)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES**

**A140.9 Reserved For Future Use**

**A140.10 Reserved For Future Use**

**A140.11 (DELETED)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS-FAST PACKET TRANSPORT SERVICES**

**A140.11 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS-FAST PACKET TRANSPORT SERVICES**  
**A140.11 (DELETED) (Cont'd)**

(D)



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**A140. OBSOLETE SERVICE OFFERINGS-FAST PACKET TRANSPORT SERVICES**  
**A140.11 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS-FAST PACKET TRANSPORT SERVICES**  
**A140.11 (DELETED) (Cont'd)**

(D)

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**A140. OBSOLETE SERVICE OFFERINGS-FAST PACKET TRANSPORT SERVICES**  
**A140.11 (DELETED) (Cont'd)**

(D)

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## A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES

### A140.12 Customer Network Management

(Obsoleted 9/19/2011, Type B – Not available for new installations, additions or on transfers of service to new location.)

#### A140.12.1 General

- A. Customer Network Management (CNM) is available on an optional basis as a feature of Frame Relay Service and Asynchronous Transfer Mode (ATM) Service.
- B. The CNM option provides customers a view into their Fast Packet network for monitoring and trouble shooting purposes. (T)
- C. The CNM platform supports hierarchical customer names. For example, a customer defines an overall network name (usually the customer name) and then may choose to establish multiple sub-network names. A maximum of five hierarchical tiers are available (the overall network plus four sub-network tiers).
- D. Access to CNM is via a Web interface. A dial or dedicated method available in Section A32., Integration Plus Management Services, may also be used to access CNM. Switched service and private line service used as a means of accessing FlexServ service has been obsoleted (see A132). For security reasons, customers are required to identify themselves via a username and password. The username and password are assigned at the time the account is established. Following is a description and requirements for each type of access:
  - 1. Web Interface - This interface allows customers to access CNM via the Web using a standard Web browser. ***This type of access requires a Security Card.*** (T)  
(Obsoleted, See A132)
  - 2. (Obsoleted, See A132)
  - 3. (Obsoleted, See A132)
- E. CNM is offered in packages which provide the following CNM options: Fault Management, On Demand Statistics and Performance Reporting.
  - 1. Fault Management  
The Fault Management option provides the ability to monitor fault and alarm information as network events occur. If a ***Company*** network event results in automatic rerouting of customer owned PVCs on a Customer Connection within the ***Company's*** Fast Packet network, such that those PVCs are not service impacted, then the Company will not send PVC events to the customer. The following Fault Management features are available on a customer and sub-network basis: (T)
    - The Company will provide to the customer, in near real time, all events, faults, and network alarms on any Customer Connection or PVC.
    - The customer can determine the severity level of alarms displayed and suppress the alarms they do not wish to view.

## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.12 Customer Network Management (Cont'd)**

#### **A140.12.1 General (Cont'd)**

##### **E. (Cont'd)**

##### **2. On Demand Statistics**

CNM provides customers statistics for each Customer Connection and PVC on a customer and sub-network basis.

##### **3. Performance Reporting (PR)**

CNM-PR provides Frame Relay and/or ATM Service customers network performance reports on their Fast Packet network. Customers have the capability of requesting performance reports for interfaces. (Interfaces are defined as customer connections and PVCs). CNM-PR provides a measure of the level of network performance of a customer's network and individual interfaces that is called the Network Performance Level. The Network Performance Level components include Incoming Utilization, Outgoing Utilization, Discarded Frames/Cells and Congestion. The Network Performance Level is used in several reports to provide a weighted performance measure taking into account all the performance parameters mentioned above. (T)

Historical Performance reports will baseline historic network performance, trend future performance and highlight network performance problems. The following selection of reports is available:

- a. Network Summary Report - Provides an overview of the customer's network performance in terms of Total Frames/Cells Transmitted and Received, Percent Total Utilization, Total Frames/Cells Discarded, and Percent Frames/Cells Discarded of Total Frames/Cells Transmitted and Received.
- b. Forecast Report - Provides the network interfaces that are projected to exceed customer specific thresholds of Utilization and Congestion.
- c. Network Interface Performance Report - Provides the Network Performance Level on a customer selectable interface (customer connection or PVC).
- d. Capacity Planning Report - Provides the top ten over-utilized and top ten under-utilized interfaces.
- e. Threshold Exceptions Report - Provides a daily report on the top ten interfaces that exceed a customer selectable threshold parameter. These parameters are Input Utilization, Output Utilization, Incoming Congestion, Outgoing Congestion, In Discards, and Out Discards.
- f. Top Ten Report - Provides a daily report of the top ten interfaces with the highest volumes and the worst Network Performance Level. It also specifies the top ten interfaces with the greatest change in both volume and Network Performance Level.

**F.** The *terms, conditions* and rates specified herein are in addition to the applicable *terms, conditions* and rates specified in other sections of this and other service publications of the Company. (T)

**G.** The rates and charges set forth for CNM provide for the furnishing of service where suitable facilities are available.

**H.** CNM is only available for use with Frame Relay Service described in A140.1 and ATM service described in A140.8.

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## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.12 Customer Network Management (Cont'd)**

#### **A140.12.2 Terms and Conditions**

(T)

##### **A. Basis of Offering**

1. Suspension of service is not allowed.
2. CNM is not available on Back-Up Customer Connections or Intelligent PVCs.
3. A customer may subscribe to CNM on a monthly basis. An account is established which will include the Customer Connections designated by the customer to have CNM capability. Customers may choose to subscribe to CNM for all Customer Connections in their Fast Packet network or choose CNM for only a portion. (T)
4. Obligations of Customer and Company
  - a. The Company is not responsible for the installation, operation, or maintenance of any equipment provided by the customer.
  - b. The customer is responsible for the provision and maintenance of all Customer Provided (CPE) and to ensure that the operating characteristics of this equipment are compatible with and do not interfere with the service offered by the Company.
  - c. Application testing described in A2.5.11 is not available for CNM.
5. In order to maintain the quality of CNM, the Company reserves the right to perform preventive maintenance and software updates. This could result in CNM being unavailable during the time period between midnight and 3:00 A.M. Eastern Time on any given Sunday morning. In addition, preventive maintenance may be performed on the Frame Relay or ATM network being monitored by CNM on any given Wednesday or Sunday between 2:00 A.M. and 4:00 A.M. Eastern Time. CNM will be unable to view these circuits while preventive maintenance is being performed. However, the Company only expects to utilize this maintenance window for any given switch on the average of once a quarter. In addition, the Company will make every reasonable effort to provide advance notice to those customers likely to be severely affected by such maintenance work.
6. The minimum service period is one month.

##### **B. Provision of Service**

1. CNM is available in three packages – Gold, Silver or Bronze. All Customer Connections within a customer's account must be under the same package. If a customer desires to have multiple packages, a separate account must be established for each package type. Following is a description of what is available in each package:
  - The Gold Package includes all CNM options; Fault Management, On Demand Statistics and Performance Reporting.
  - The Silver Package includes Fault Management and On Demand Statistics.
  - The Bronze Package includes only Fault Management.

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## **A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES**

### **A140.12 Customer Network Management (Cont'd)**

#### **A140.12.2 Terms and Conditions (Cont'd)**

(T)

##### **B. Provision of Service (Cont'd)**

2. Customers who subscribe to CNM may choose to monitor their entire Fast Packet network or selected Customer Connections. The following rates and charges are applicable for customers who subscribe to CNM:

(T)

- a. Service Establishment Charge

The Service Establishment Charge is a nonrecurring charge which applies per Frame Relay or ATM customer account. If a customer is both a Frame Relay and ATM customer, only one Service Establishment Charge will apply. This charge covers the initial establishment and set-up of the CNM account for the customer. A username(s) and password(s) will be assigned for use by the customer in accessing their account. At the time the account is established, a customer may also choose to establish sub accounts.

- b. Reporting Packages – Gold, Silver, Bronze

A monthly charge applies for each Customer Connection the customer has chosen to monitor. A nonrecurring charge is applicable per Customer Connection at the time of installation.

- c. Subsequent Modification Charge

The Subsequent Modification Charge is a nonrecurring charge which applies per Customer Connection when a CNM customer requests that existing CNM Customer Connections, or PVC's on the Customer Connection, be modified. Examples of this charge include change of customer name and movement between packages. This charge is not applicable:

- when a new PVC is added to an existing CNM Customer Connection and CNM is requested for the new PVC, or
- for a request to change a password.

- d. Management Access Interface

All customers must have a Management Access Interface. This connection allows the customer to monitor their network. A monthly charge applies for each Web Interface. A nonrecurring charge is applicable per web access at the time of installation. A Security Card described below is required for each web access. See A32.1.2 for a dial or dedicated access option.

- Security Card – The Security Card charge specified in A140.12.3.B will apply for the initial card or for the issuance of additional cards for additional users or to replace a lost, damaged or expired card.

##### **C. Contract Plans**

1. Contract plans are available under conditions specified in the Fast Packet Services Payment Plan in A40.10 with contract periods described as follows:
  - a. Term Payment Plan A - payment periods may be selected from 12 to 36 months.
  - b. Term Payment Plan B - payment periods may be selected from 37 to 60 months.

## A140. OBSOLETE SERVICE OFFERINGS – FAST PACKET TRANSPORT SERVICES

### A140.12 Customer Network Management (Cont'd)

#### A140.12.3 Rates and Charges

##### A. CNM - Performance Reporting

##### 1. CNM Service Establishment Charge

		Nonrecurring Charge		USOC
(a) Per Customer		\$250.00		CNMSE
2. Gold Reporting <sup>1</sup>				

		Nonrecurring Charge	Month To Month	A 12 to 36 Months	B 37 to 60 Months	USOC
(a) Per Frame Relay Service Customer Connection		\$95.00	0.00	0.00	0.00	CNMGF
(b) Per ATM Service Customer Connection		95.00	0.00	0.00	0.00	CNMGA
3. Silver Reporting <sup>2</sup>						
(a) Per Frame Relay Service Customer Connection		90.00	0.00	0.00	0.00	CNMSF
(b) Per ATM Service Customer Connection		90.00	0.00	0.00	0.00	CNMSA
4. Bronze Reporting <sup>3</sup>						
(a) Per Frame Relay Service Customer Connection		85.00	0.00	0.00	0.00	CNMBF
(b) Per ATM Service Customer Connection		85.00	0.00	0.00	0.00	CNMBA

##### 5. Subsequent Modification Charge

		Nonrecurring Charge		USOC
(a) Per Customer Connection		\$75.00		CNMMS
B. Management Access Interface <sup>4</sup>				

##### 1. Web Interface

		Nonrecurring Charge	Month To Month	A 12 to 36 Months	B 37 to 60 Months	USOC
(a) Each		\$125.00	\$25.00	\$18.75	\$15.00	CNMWE
2. Security Card						

		Nonrecurring Charge		USOC
(a) Each		\$100.00		CNMSC

**Note 1:** Includes Fault Management, On Demand Statistics and Performance Reports.

**Note 2:** Includes Fault Management and On Demand Statistics.

**Note 3:** Includes only Fault Management.

**Note 4:** See A32.1.2 for a dial or dedicated access option.



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**A140. OBSOLETE SERVICE OFFERINGS - FAST PACKET TRANSPORT SERVICES**  
**A140.13 (DELETED)**

(D)