

**NETWORK RECONFIGURATION SERVICE (NRS)**

/1/

Effective October 30, 2018, Network Reconfiguration Service (NRS) will no longer be available for purchase by new or existing customers, and NRS service agreements may no longer be renewed. Effective July 31, 2022, the Company will no longer accept new requests for physical changes to existing service arrangements including the upgrade or downgrade of access/port speed, installation of new service, or moves to different service addresses.

(N)

(N)

**A. Description**

/1/

Network Reconfiguration Service (NRS) gives customers the ability to reconfigure individual channel segments within their networks via electronic cross-connections. These segments may consist of DS3 Service, DS1 Service and Base Rate Service. Customers may also reconfigure individual channels that are part of a reconfigurable multiplexed DS1 Service or multiplexed DS3 Service. Although NRS is focused primarily on digital services, customers may utilize NRS with analog services by ordering reconfigurable DS1's equipped with Central Office Multiplexing in addition to the NRS DS1 Terminations and then using the multiplexed DS1 for the transport of the analog services. Customer access to NRS may be made directly by the customer utilizing customer-provided terminal equipment on the customer's premises in conjunction with a dial-in line. Access is also available through a Company attendant reached by a dial-access telephone line.

/1/

**B. Definitions**

/2/

Access Arrangement

Provides the interface between the customer and the NRS system. An Access Arrangement must be purchased for each concurrent customer user of the NRS system. The Company issues a SecurID card to the customer user for each Access Arrangement when Attendant Service is not utilized.

NRS Training

Provides for additional training requested by the customer beyond the training session included with the initial installation of the NRS system.

Attendant Access

Provides for reconfiguration activities to be performed by a Company attendant at the direction of the customer. The customer may request that the commands be performed on demand or at a later, scheduled time. Attendant Access cannot be purchased independently, but is available to customers that access NRS through a dial-up arrangement.

Database Modification

A customer initiated change to their network database subsequent to the initial database setup. These changes include:

- Addition or deletion of channel/facility terminations at the NRS system location.
- Addition, deletion or change in the customer's master security word.

Port Termination

Connects a local distribution channel, or channel mileage, to an NRS location allowing the connected service to be reconfigured. All services in a customer's NRS database must be terminated at an NRS system location. Only services included in a customer's NRS database may utilize the NRS termination feature.

/2/

/1/ Material formerly appeared on Part 15, Section 3, Sheet 108.

/2/ Material formerly appeared on Part 15, Section 3, Sheet 109.

**NETWORK RECONFIGURATION SERVICE (cont'd)**

/1/

**C. Terms and Conditions**

1. NRS will be available on a continuous basis except for the performance of scheduled preventative and routine maintenance or scheduled software updates. The customer will be notified at least 24 hours in advance of any scheduled service interruptions.
2. NRS system locations are found in the National Exchange Carrier Association, Inc., Tariff F.C.C. #4.
3. Services that are cross-connected by the Network Reconfiguration Service will not operate properly unless they have identical technical characteristics to ensure compatibility and proper operation. NRS customers are responsible for the compatibility of the services they choose to cross-connect.

If the Company determines that the technical characteristics of services selected for cross-connection by the customer are not compatible, they will advise the customer and give them the opportunity to change the order.

4. Network Reconfiguration Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, *Special Construction* charges may apply.
5. Each Company wire center has been assigned to a Rate Zone. A table listing all Rate Zone assignments can be found in Part 15, Section 1, Paragraph (U) of this Guidebook.

/1/

/1/ Material formerly appeared on Part 15, Section 3, Sheet 110.

**NETWORK RECONFIGURATION SERVICE (cont'd)**

/2/

**D. Features**

## 1. Optional Features

NRS Training

Additional training, beyond that provided with the initial installation, is available.

Attendant AccessThe customer may choose to have reconfiguration activities performed by the Company. (See *Definitions* preceding.)Database ModificationSubsequent to the initial installation, the customer may request modification to the database. (See *Definitions* preceding.)**E. Technical References**SubjectTechnical Reference

Ameritech OPTINET Reconfiguration Interface Specifications

AM TR-TMO-000064

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

/2/

**F. Prices**

/3/

## 1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>	<u>Monthly</u>	Monthly Payment <i>Term Payment Plans</i>		
			<u>12 Months</u>	<u>36 Months</u>	<u>60 Months</u> <sup>/1/</sup>
NRS Service Charge, per customer database /FN6DD/	\$4,800.00	\$240.00	\$228.00	\$204.00	\$192.00
NRS Access Arrangement, per arrangement /RNQPA/	75.00	210.00	199.50	178.50	168.00

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers.

/2/ Material formerly appeared on Part 15, Section 3, Sheet 111.

/3/ Material formerly appeared on Part 15, Section 3, Sheet 112.

/3/

## NETWORK RECONFIGURATION SERVICE (cont'd)

/2/

## F. Prices (cont'd)

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	<u>Monthly</u>	Monthly Payment <i>Term Payment Plans</i>		
		<u>12 Months</u>	<u>36 Months</u>	<u>60 Months</u> <sup>/1/</sup>
NRS System Location Port Termination, per termination				
Base Rate /PT5/	\$ 20.00	\$ 19.00	\$ 17.00	\$ 16.00
DS1				
- Zone 1 /PQD11/	48.00	45.60	40.80	38.40
- Zone 2 /PQD12/	48.00	45.60	40.80	38.40
- Zone 3 /PQD13/	48.00	45.60	40.80	38.40
DS3				
- Zone 1 /R6SX1/	175.00	166.25	148.75	140.00
- Zone 2 /R6SX2/	175.00	166.25	148.75	140.00
- Zone 3 /R6SX3/	175.00	166.25	148.75	140.00

/2/

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>
<i>Optional Features</i>	
Database Modification, per modification /FN6DC/	\$50.00
Attendant Access	
per first 30 minutes (per occurrence) /NRBN1/	55.00
per additional 15 minute increments /NRBNA/	10.00
NRS Training, per hour of additional training /NRBNT/	50.00

/3/

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers.

/2/

/2/ Material formerly appeared on Part 15, Section 3, Sheet 113.

/3/ Material formerly appeared on Part 15, Section 3, Sheet 114.

**NETWORK RECONFIGURATION SERVICE (cont'd)**

/2/

**F. Prices (cont'd)****2. Payment Plans**

- Month to Month  
Network Reconfiguration Service is available on a month to month basis.
- Term Payment Plans  
Network Reconfiguration Service is available under a Term Payment Plan (TPP) whereby customers must select either a 12, 36 or 60<sup>/1/</sup> month period. After the selected Term Payment Plan period is satisfied, the monthly rate will apply unless a new TPP is selected. Refer to *Term Payment Plans* in Part 15, Section 1.
- Single Payment Option (SPO)  
A Single Payment Option is available for this service. Refer to *Term Payment Plans - Single Payment Option* in Part 15, Section 1.

**3. Termination Charges**

Termination Charges will apply to service terminated prior to the contracted period. The termination charge for all TPP terms for Network Reconfiguration Service will be calculated as described in *Term Payment Plans - Termination Charges* in Part 15, Section 1.

**4. Credit Allowance**

A credit allowance will be given for failure to meet the installation interval service date or for interruption of service. Refer to *Credit Allowances* in Part 15, Section 1 for calculating credit allowances. (Utilize Step 2 "for two-point services" to compute the credit allowance.) Credit allowances for circuits affected by an NRS failure are calculated on a "by circuit" basis according to the type of circuit affected.

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers.

/2/ Material formerly appeared on Part 15, Section 3, Sheet 115.

/2/

(D)

(D)

(D)

(D)

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE**

/1/

Effective December 1, 2012, Multi-service Optical Network (MON) Ring Service is not available for new installations. Existing MON Ring customers will be permitted to modify their service by adding new circuits to their existing service, but will not be permitted to add new nodes in new locations. New circuits added to existing locations will utilize the customer's existing Term Payment Plan (TPP) and should be coterminous with the customer's existing TPP. Customers with TPPs that expire may not extend their service contract. In addition, effective December 1, 2016, no Move, Add or Change orders of any type will be accepted for MON Ring Service.

(N)

(N)

**A. Description**

/1/

Multi-service Optical Network Ring (MON Ring) Service provides high volume optical transport utilizing multiplexing technology in a dedicated ring configuration. Multiple data signals are transmitted over fiber-optic cable using different wavelengths of light. Each of these wavelengths represents a transmission channel in the MON Ring system and is protocol-independent of every other channel in the system.

MON Ring Service is only available within the Local Access and Transport Areas (LATAs) served by and within the service territories of Ameritech.

MON Ring Service allows customers to combine their multiple data signals so that they can be amplified and transported over one network. MON Ring Service provides dedicated capacity over a single pair of fiber in two directions that increases capacity without limiting customer-required data interfaces.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 137.



**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/3/

**A. Description (cont'd)****Sub-Rate Systems**

Sub-Rate System – provides a multiplexing system operating at 1.25 Gbps with 4 ports. Applicable to ESCON™, Fast Ethernet, D1 Video, DVB-ASI Video and OC-3/OC-3c port interfaces. Sub-rate multiplexing is offered at the serving wire center only for OC-3/OC-3c.<sup>/1/</sup>

ESCON™ Sub-Rate System - provides a multiplexing system which allows customers to put up to 8 ESCON™ Channels (no other protocol) on one port card.<sup>/1/</sup>

GigE/FC/FICON™ Sub-Rate System - provides a multiplexing system which allows customers to put 2 Gigabit Ethernet (GigE) Channels or 2 Fibre Channels (1.0625 Gbps) or 2 FICON™ Channels (1.0625 Gbps) or any combination thereof totaling two channels on the sub-rate system. Fibre Channel (2.125 Gbps) and FICON™ (2.125 Gbps) cannot be placed on this sub-rate system.

OC-3/OC-12 Sub-Rate System – provides a multiplexing system which allows customers to put up to either 4 OC-3/OC-3c signals or OC-12/OC-12c signals or combinations thereof on one card. This sub-rate multiplexing system will have independent timing which allows multiple OC-3/OC-3c services or OC-12/OC-12c services on one port card.<sup>/1/</sup>

SONET OC-48 Sub-Rate System – provides a multiplexing system which allows customers to put up to four (4) OC-48/OC-48c signals on one card.<sup>/2/</sup>

/3/

/1/ Available where facilities and equipment permit.

/3/

/2/ Available where facilities and equipment permit beginning November 30, 2005.

/3/

/3/ Material formerly appeared in Part 15, Section 3, Sheet 137.1.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/2/

**A. Description (cont'd)**

MON Ring Service offers the following port interfaces:

*IBM Protocols*<sup>/1/</sup>

ESCON™ (200 Mbps) - Enterprise Systems Connection - An IBM duplex optical connection used for computer-to-computer data exchange. ESCON™ is limited to a maximum distance of 43 km and actual data throughput is distance sensitive. ESCON™ is offered as a riding circuit where facilities and equipment permit.

ETR/CLO™ (8 Mbps - Manchester Encoded) - External Timing References/Control Link Oscillator. This protocol is used for IBM GDPS™ architecture for multiple-location host processors. ETR/CLO™ is limited to a maximum distance of 40 km.

FICON™ (1.0625 Gbps and 2.125 Gbps) - A higher-speed evolution of ESCON™, enabling 1 Gbps connectivity among mainframes, storage devices and peripherals. FICON™ is limited to a maximum distance of 100 km and actual data throughput is distance sensitive. 1.0625 Gbps offered as a riding circuit where facilities and equipment permit. 1.0625 Gbps service is capable of being multiplexed on the GigE/FC/FICON™ Sub-Rate System.

ISC-1™ (1.0625 Gbps) - Inter-System Coupling - This protocol is used with IBM GDPS™ architecture for multiple-location host processors. ISC-1™ is limited to a maximum distance of 40 km.

ISC-3™ (2.125 Gbps) - Inter-System Channel. ISC-3™ links have a peak data rate of 2.125 Gbps and can interconnect IBM™ eServer z900 systems for distances up to 100 km.

/2/

---

/1/ ESCON™, ETR/CLO™, FICON™, ISC-1™, ISC-3™ and GDPS™ are registered trademarks of the International Business Machines (IBM) Corporation, Armonk, NY 10504.

/2/ Material formerly appeared in Part 15, Section 3, Sheet 137.2.

/2/

/2/

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**A. Description (cont'd)***Other Protocols*

Fibre Channel (1.0625 Gbps and 2.125 Gbps) – an industry standard protocol used to interconnect Storage Area Networks (SANs). Fibre Channel is limited to a maximum distance of 100 km and actual data throughput is distance sensitive. 1.0625 Gbps service is offered as a riding circuit where facilities and equipment permit. 1.0625 Gbps service is capable of being multiplexed on the GigE/FC/FICON™ Sub-Rate System.

Fast Ethernet – a version of Ethernet that allows data transmission rates of 100 Mbps. Offered as a riding circuit where facilities and equipment permit.

Gigabit Ethernet – a version of Ethernet that allows data transmission rates of 1 Gbps. Gigabit Ethernet (GigE) is offered as a riding circuit where facilities and equipment permit.

10 Gigabit Ethernet (WAN-PHY) – a version of Ethernet that allows data transmission rates of 9.953 Gbps with a WAN-PHY only interface.

10 Gigabit Ethernet (LAN-PHY) – a version of Ethernet that allows data transmission rates of 10.3125 Gbps with a LAN-PHY only interface.

D1 Video – uncompressed digital video signal operating at 270 Mbps. Offered as a riding circuit where facilities and equipment permit.

DVB-ASI Video – Digital Video Broadcasting – provides a 1310 nm optical interface at 270 Mbps. Offered as a riding circuit where facilities and equipment permit.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 138.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/2/

**A. Description (cont'd)***Other Protocols (cont'd)*

SONET OC-3/OC-3c - provides a fiber-based 155.52 Mbps synchronous optical full duplex data transmission capability. Offered as a riding circuit where facilities and equipment permit.<sup>/1/</sup>

SONET OC-12/OC-12c - provides a fiber-based 622.08 Mbps synchronous optical full duplex data transmission capability. Offered as a riding circuit where facilities and equipment permit.<sup>/1/</sup>

SONET OC-48/OC-48c - provides a fiber-based 2488.32 Mbps synchronous optical full duplex data transmission capability. Offered as a riding circuit where facilities and equipment permit beginning November 30, 2005.<sup>/1/</sup>

SONET OC-192/OC-192c - provides a fiber-based 9953.28 Mbps synchronous optical full duplex data transmission capability.<sup>/1/</sup>

/2/

---

/1/ These port interfaces are available at both the Customer Premises Node and the Central Office Node. All other port interfaces are available only at the Customer Premises Node.

/2/

/2/

/2/ Material formerly appeared in Part 15, Section 3, Sheet 138.1.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**B. Definitions**Bulk Power

Provides for customer premises node power which will be required if the customer's power source is AC.

Central Office Node

Provides for the termination of service at a serving wire center.

Channel Mileage (CM)

Provides for the transmission facilities between the serving wire centers associated with each node involved on the MON Ring. Channel mileage is calculated using the V and H coordinate method described in Part 15, Section 1 of this Tariff. A one-mile minimum will be billed between nodes. A two-node ring configuration has a two-mile minimum, one mile from the Central Office Node to the Customer Premises Node, and one mile from the Customer Premises Node to the Central Office Node.

Channel Protection (Optional)

Provides protection for a single channel toward the network. It does not protect the channel against failure towards the customer interface. Protection reduces the maximum individual channel capacity of the system.

Customer Premises Node

Provides for the termination of service at the customer's premises and presents the various selected ports to the customer.

Optical Amplifier

Provides for an optical signal boost if the distance between nodes exceeds the transmission loss parameters (link loss specific). Engineering considerations may dictate the need for more than one optical amplifier on a circuit route. These additions may be service affecting. Optical amplifiers may be located at a Customer Premises Node, a Central Office Node or at a serving wire center.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 139.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**B. Definitions (cont'd)**Port

Provides the channel interface at any Node Location for each unprotected or protected channel.

Regenerator

Provides for re-timing, re-shaping and regeneration of signals if degradation exceeds the dispersion or optical amplifier noise limits. Provided on a per shelf basis for up to 2.5 Gigabit Ethernet service and on a per circuit, per each location the circuit is regenerated basis for up to 10 Gigabit Ethernet service.

/1/

Sub-Rate Systems

Allows for multiple ports, also called riding circuits, on a single wavelength.

/2/

/2/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 139.

/2/ Material formerly appeared in Part 15, Section 3, Sheet 139.1.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**C. Terms and Conditions**

In addition to regulations set forth elsewhere in this and other Company Guidebooks, the following regulations apply to MON Ring Service:

(C)

1. The customer-provided equipment must deliver the data signals for the MON Ring Service transport within the industry specification for the subscribed data services.
2. MON Ring Service provides physical layer transport only. The Company assumes no responsibility for the signals generated by the customer, for the quality of or defects in such signals, for the reception of signals by the customer, or address signaling to the extent addressing is performed by the customer. Error detection and correction of data generated by the customer is the customer's responsibility.
3. The service is considered interrupted when the customer reports a service disruption to the Company and the Company confirms that continuity of its service has been lost.
4. MON Ring Service may have distance limitations based on the services carried and may require routing through central offices based on loss limits between nodes. Services with facility length limitations may not be available on some MON rings, or may not be available between some nodes on certain MON rings.
5. Optical Amplifiers and/or Regenerators may have to be added to a MON Ring Service subsequent to the initial installation.
6. When additional services are added, such installation may cause a service interruption to existing unprotected channels, or a protection switch on protected channels.
7. Where conditions, equipment, and facilities permit, MON Ring Service will be offered in two configurations. Customers can purchase MON Ring with growth capacity up to 16 wavelengths or up to 32 wavelengths. The 32 wavelength systems may, at the discretion of the Company, be built as two 16 wavelength systems sharing common fiber and some common equipment. Depending upon the configuration, conversion from a 16 wavelength MON Ring Service to a 32 wavelength MON Ring Service may not be available.
8. The minimum service period for MON Ring Service is 36 months or 60 months.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 140.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**C. Terms and Conditions (cont'd)**

9. MON Ring Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, **Special Construction** charges may apply.
10. Floor space for subsequent shelf growth at a Central Office Node beyond the initial installation will be provided where available, but cannot be guaranteed for subsequent shelf growth beyond the initial installation.
11. Prior to confirming an order for service, the Company will provide a proposed route diagram to the customer.
12. Installation of service will not begin until the customer has accepted the proposed routing by the Company.
13. Channel protection may not be available for all interface types.
14. Conversion from MON Service to MON Ring Service is not available.
15. Conversions from any other lower speed services to MON Ring Service are not available.
16. Where conditions, equipment, and facilities permit, the customer must first order the MON Ring Transport System followed by the MON Ring Channels. When ordering riding services, the customer must first order the MON Ring Transport System followed by a MON Ring Sub-rate System over which these services will be assigned. When riding services are ordered on a Sub-rate System, they are represented by different rate elements than those services ordered directly on the MON Ring.
17. Services with time-delay sensitive protocols have facility length limitations and may affect the design/availability of MON Ring Service. (E.g., CPU to CPU communications have a maximum distance limitation of 60 km.) The Company will work cooperatively with the customer to determine if the desired services can operate between the customers designated premises.
18. Neither electrical interfaces nor optical add/drop multiplexing are available with this service.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 141.



**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**C. Terms and Conditions (cont'd)**

19. OC-12/OC-12c, Gigabit Ethernet, Fibre Channel (1.0625 Gbps) and FICON™ (1.0625 Gbps) can be ordered directly on MON Ring, or as a riding service on a sub-rate system. Fibre Channel (2.125 Gbps) and FICON™ (2.125 Gbps) can only be ordered directly on MON Ring, and cannot be ordered on a sub-rate system. OC-12, Gigabit Ethernet, Fibre Channel (1.0625 Gbps) and FICON™ (1.0625 Gbps) when ordered on a sub-rate system, are represented by different rate elements than those ordered directly on the MON Ring.

**D. Features**

1. Standard Features

MON Ring Service is available in different ring configurations utilizing Central Office Nodes and Customer Premises Nodes. The total number of circuits and total usable bandwidth to the customer depends upon the mix of services ordered and the specific traffic patterns of the customer. The company will determine the appropriate wavelength assignment and the design of the MON Ring.

The minimum configuration would be two customer nodes either at a serving wire center or a customer premise site. If the customer nodes are not in a serving wire center, a central office management site for monitoring is required. An optical amplifier located at a serving wire center can be used as a monitoring site.

A combination of these configurations may be used in a network design depending on the customer's traffic pattern.

/1/

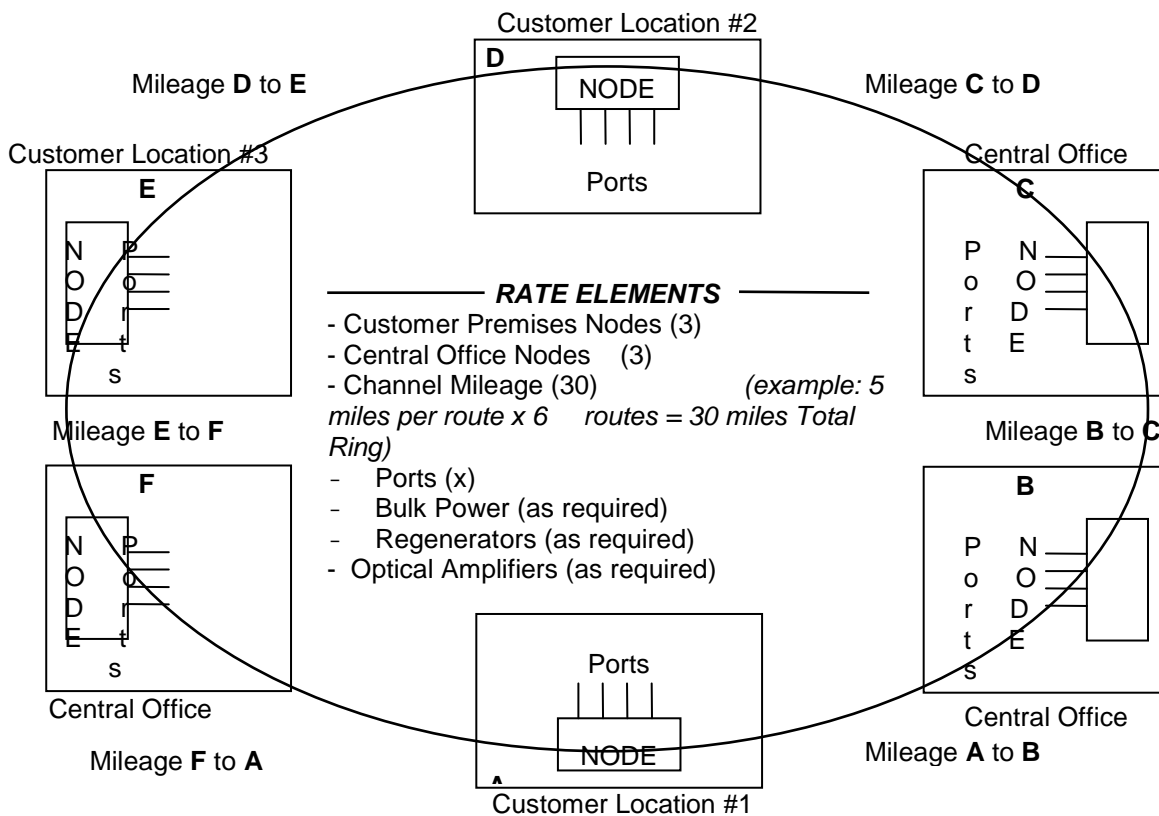
/1/ Material formerly appeared in Part 15, Section 3, Sheet 142.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**D. Features (cont'd)**1. Standard Features (cont'd)

Diagram of MON Ring



/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 143.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**D. FEATURES**1. Standard Features (cont'd)

## Route Diversity

- MON Ring Service is configured with diversely routed fiber whenever possible. MON Ring Service will be available for protected channels 99.999% of the time and protected channels will switch within 50 milliseconds (not to exceed 2 seconds). Equipment interfaces towards the customer are not protected. Unprotected channels will be lost in the event of a fiber path failure on which the circuit is assigned.
- Routing of fiber may be diversified from the customer's property line to their serving wire center or alternate serving wire center to ensure that loop fibers follow separate paths to the serving central office. In addition, IOF fiber (if applicable) may be diversified to ensure that with any serving wire center Central Office Node, the fibers do not egress and ingress at the same point. In cases where the central office does not have multiple entrance fiber facilities, the section of the fiber from the closest manhole (to the serving wire center) will be routed within the same duct structure.
- At the customer's request, additional protection to the Customer Premises Nodes can be provided via diverse dual entrance facilities. This special request will cause the customer to incur special construction cost. Without this special request, diverse fiber is provided to the closest manhole to the customer location property line. The customer or building owner is responsible for providing conduit designed to meet industry standards and local fire and safety codes from the property line to the building to within the premises. The customer determines route and method of protection inside the premises.
- In the case where dual entrance facilities are not established at the customer premises, facilities routed within the same duct structure from the property line to the building equipment location are not diverse.

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 144.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**E. Technical References**

The customer interfaces to MON Ring Service are as specified in:

<u>Subject</u>	<u>Technical Reference</u>
LAN Interconnect Service - Token Ring Interface Specifications	AM TR-NIS-000100
LAN Interconnect Service - CSMA/CD Interface Specifications	AM TR-NIS-000104
OC-3, OC-12 and OC-48 Service Interface Specifications	AM-TR-NIS-000111
Digital Service Transmission Parameters	AM-TR-TMO-000101
Service's Network Channel and Network Channel Interface Codes	AM-TR-TMO-000080
Technical Interface Specifications	AM-TR-NIS-000096
(ESCON <sup>TM</sup> )	AM-TR-NIS-000107
IBM Documentation (ESCON <sup>TM</sup> )	IBM SA22-7202-XX
	IBM SA23-0394-XX
Fibre Channel (also includes FICON <sup>TM</sup> and ISC <sup>TM</sup> )	ANSI X3.T9.3
Fast Ethernet	ANSI/IEEE 802.3
GigaBit Ethernet	IEEE 802.3x and z
	IEEE 802.3ae
D1 Video	ANSI/SMPTE 259M

(C)

(C)

The Technical References can be obtained from:

AT&T at [http://www.sbc.com/public\\_affairs/regulatory\\_documents/tariffs/1,5932,448,00.html?pid=240](http://www.sbc.com/public_affairs/regulatory_documents/tariffs/1,5932,448,00.html?pid=240)

(C)

The Telcordia Publication(s) can be obtained from:

Telcordia Technologies, Inc.  
8 Corporate Place, PYA 3A-184  
Piscataway, New Jersey 08854-4156

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 145.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**F. Prices**

## 1. Service Elements

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>
<b>Administrative Charge</b> , per service order /ORCMX/	\$125.00
<b>Design and Central Office Connection Charge</b> , per riding circuit /NRBCL/	600.00
<b>Customer Connection Charge</b>	
Service Establishment, per node /NRBBL/	7,500.00
Subsequent Installation, per subsequent shelf /NHCNL/	1,000.00

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 146.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	Monthly Payment		<u>Monthly Extension</u>
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Transport System</b>			
<b>Customer Premises Node</b>			
(includes first shelf) /F2ND1/	\$7,800.00	\$6,240.00	\$10,920.00
- per subsequent shelf /F2NDS/	5,850.00	4,680.00	8,190.00
<b>Central Office Node</b>			
(includes first shelf) /F2NC1/	7,800.00	6,240.00	10,920.00
- per subsequent shelf /F2NCS/	5,850.00	4,680.00	8,190.00
<b>Channel Mileage</b>			
- per V&H mile or fraction thereof /1L5XX/	325.00	260.00	455.00
<b>Optical Amplifier</b> (as required)			
- C band(per location) /67QXX/	5,400.00	3,600.00	7,600.00
- L band(per location) /67QSX/ <sup>/1/</sup>	5,400.00	3,600.00	7,600.00
<b>Regenerator</b> -(as required)			
- up to 2.5 Gbps (per shelf) /V8RXX/	7,500.00	5,000.00	10,500.00
- up to 10 Gbps (per circuit, per each location) /V8R2C/	15,000.00	10,000.00	21,000.00
<b>Bulk Power</b> (as required)			
- per first shelf (shelves 1-4) /CBVDX/	2,000.00	1,600.00	2,600.00
- per subsequent shelf (shelves 5-8) /CBVDS/	1,600.00	1,300.00	2,100.00

/2/

/1/ Available where facilities and equipment permit.

/2/

/2/ Material formerly appeared in Part 15, Section 3, Sheet 147.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	Monthly Payment Term Payment Plans		<u>Monthly Extension</u>
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Channels</b>			
<b>Ports</b>			
- per port/per circuit terminating location			
ETR/CLO™			
- unprotected channel /POYKW/	\$975.00	\$750.00	\$1,400.00
FICON™ (1.0625 Gbps)			
- unprotected channel /POYMW/	975.00	750.00	1,400.00
- protected channel /POYMP/	1,950.00	1,500.00	2,800.00
FICON™ (2.125 Gbps)			
- unprotected channel /POYWW/	1,700.00	1,300.00	2,400.00
- protected channel /POYWP/	3,400.00	2,600.00	4,800.00
ISC-1™			
- unprotected channel /POYJW/	3,250.00	1,250.00	4,600.00
- protected channel /POYJP/	3,600.00	2,500.00	5,000.00
ISC-3™			
- unprotected channel /POY9W/	3,750.00	2,500.00	5,000.00
- protected channel /POY9P/	7,500.00	5,000.00	10,000.00
Fibre Channel (1.0625 Gbps)			
- unprotected channel /POYNW/	1,200.00	900.00	1,700.00
- protected channel /POYNP/	2,400.00	1,800.00	3,400.00
Fibre Channel (2.125 Gbps)			
- unprotected Channel /POYYW/	1,700.00	1,300.00	2,400.00
- protected channel /POYYP/	3,400.00	2,600.00	4,800.00
Gigabit Ethernet			
- unprotected channel /POYLW/	1,200.00	900.00	1,700.00
- protected channel /POYLP/	2,400.00	1,800.00	3,400.00

/1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 148.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	<u>Monthly Payment Term Payment Plans</u>		<u>Monthly Extension</u>
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Channels (cont'd)</b>			
<b>Ports (cont'd)</b>			
- per port/per circuit terminating location			
10 Gigabit Ethernet (WAN PHY)			
- unprotected channel /POYTW/	\$15,000.00	\$12,500.00	\$21,000.00
- protected channel /POYTP/	20,000.00	16,700.00	28,000.00
10 Gigabit Ethernet(LAN-PHY)			
- unprotected channel /POYUW/	15,375.00	12,815.00	21,525.00
- protected channel /POYUP/	20,500.00	17,120.00	28,700.00
SONET OC-12/OC-12c			
- unprotected channel /POYFW/	1,300.00	1,000.00	1,900.00
- protected channel /POYFP/	2,600.00	2,000.00	3,700.00
SONET OC-48/OC-48c <sup>/1/</sup>			
- unprotected channel /POYGW/	4,400.00	3,700.00	6,000.00
- protected channel /POYGP/	6,600.00	5,560.00	9,000.00
SONET OC-192/OC-192c			
- unprotected channel /POYOW/	15,000.00	12,500.00	21,000.00
- protected channel /POYOP/	20,000.00	16,700.00	28,000.00

/2/

/1/ Available where facilities and equipment permit.

/2/

/2/ Material formerly appeared in Part 15, Section 3, Sheet 149.



**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/2/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	<u>Monthly Payment Term Payment Plans</u>		<u>Monthly Extension</u>
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Channels (cont'd)</b>			
<b>Ports (cont'd)</b>			
- per port/per circuit terminating location			
GigE/FC/FICON™ Sub-Rate System			
- unprotected channel /POY1W/	\$875.00	\$700.00	\$1,140.00
- protected channel /POY1P/	1,750.00	1,400.00	2,280.00
GigE Riding Circuit <sup>/1/</sup>			
- unprotected channel /POY4W/	500.00	400.00	650.00
- protected channel /POY4P/	1,000.00	800.00	1,300.00
Fibre Channel (1.0625) Riding Circuit <sup>/1/</sup>			
- unprotected channel /POY6W/	500.00	400.00	650.00
- protected channel /POY6P/	1,000.00	800.00	1,300.00
FICON™ Riding (1.0625) Circuit <sup>/1/</sup>			
- unprotected channel /POY7W/	400.00	320.00	480.00
- protected channel /POY7P/	800.00	640.00	960.00

/2/

/1/ Available only when ordered with GigE/FC/FICON™ Sub-Rate System.

/2/

/2/ Material formerly appeared in Part 15, Section 3, Sheet 149.1.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/3/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	Monthly Payment		Monthly <u>Extension</u>
	<u>Term</u> <u>36 Months</u>	<u>Payment Plans</u> <u>60 Months</u>	
<b>MON Ring Channels (cont'd)</b>			
<b>Ports (cont'd)</b>			
- per port/per circuit terminating location			
ESCON <sup>TM/1/</sup>			
- unprotected channel /PWY1W/	\$1,300.00	\$1,000.00	\$1,900.00
- protected channel /PWY1P/	2,600.00	2,000.00	3,700.00
Fast Ethernet <sup>/1/</sup>			
- unprotected channel /PWY2W/	1,300.00	1,000.00	1,900.00
- protected channel /PWY2P/	2,600.00	2,000.00	3,700.00
D1 Video Circuit <sup>/1/</sup>			
- unprotected channel /PWY3W/	1,300.00	1,000.00	1,900.00
- protected channel /PWY3P/	2,600.00	2,000.00	3,700.00
DVB-ASI Video <sup>/1/</sup>			
- unprotected channel /POY8W/	2,100.00	1,650.00	3,075.00
- protected channel /POY8P/	4,200.00	3,300.00	5,775.00
SONET OC-3/OC-3c <sup>/1/</sup>			
- unprotected channel /PWY4W/	1,300.00	1,000.00	1,900.00
- protected channel /PWY4P/	2,600.00	2,000.00	3,700.00
OC-48 Sub-Rate System <sup>/1/</sup>			
- unprotected channel /POYRW/	3,500.00	2,750.00	4,250.00
- protected channel /POYRP/	7,000.00	5,500.00	8,500.00
SONET OC-48/OC-48c Riding Circuit <sup>1/2/</sup>			
- unprotected channel /POYZW/	1,900.00	1,200.00	2,800.00
- protected channel /POYZP/	3,800.00	2,400.00	5,600.00

/3/

/1/ Available where facilities and equipment permit beginning November 30, 2005.

/3/

/2/ Available when ordered with OC-48 Sub-Rate System beginning November 30, 2005.

/3/

/3/ Material formerly appeared in Part 15, Section 3, Sheet 149.2.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/5/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	Monthly Payment Term Payment Plans		Monthly Extension
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Channels (cont'd)</b>			
<b>Ports (cont'd)</b>			
- per port/per circuit terminating location			
Sub-Rate System <sup>/1/</sup>			
- unprotected channel /POYSW/	\$1,300.00	\$1,000.00	\$1,900.00
- protected channel /POYSP/	2,600.00	2,000.00	3,700.00
ESCON™ Riding Circuit <sup>/1//2//3/</sup>			
- unprotected channel /POYHW/	100.00	100.00	150.00
- protected channel /POYHP/	100.00	100.00	150.00
Fast Ethernet Riding Circuit <sup>/1//2/</sup>			
- unprotected channel /POYCW/	325.00	250.00	400.00
- protected channel /POYCP/	500.00	400.00	650.00
D1 Video Riding Circuit <sup>/1//2/</sup>			
- unprotected channel /POYVW/	100.00	100.00	150.00
- protected channel /POYVP/	100.00	100.00	150.00
DVB ASI Video Riding Circuit <sup>/1//2/</sup>			
- unprotected channel /PWY5W/	100.00	100.00	100.00
- protected channel /PWY5P/	100.00	100.00	100.00
SONET OC-3/OC-3c Riding Circuit <sup>/1//2//4/</sup>			
- unprotected channel /POYEW/	100.00	100.00	150.00
- protected channel /POYEP/	100.00	100.00	150.00

/5/

/1/ Available where facilities and equipment permit.

/2/ Available only when ordered with a Sub-Rate System.

/3/ Also available with ESCON Sub-Rate System.

/4/ Also available with SONET OC-3/OC-12 Sub-Rate System.

/5/ Material formerly appeared in Part 15, Section 3, Sheet 150.

/5/

/5/

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/3/

**F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description /Billing Code/</u>	Monthly Payment Term Payment Plans		Monthly Extension
	<u>36 Months</u>	<u>60 Months</u>	
<b>MON Ring Channels (cont'd)</b>			
<b>Ports (cont'd)</b>			
- per port/per circuit terminating location			
ESCON™ Sub-Rate System <sup>/1/</sup>			
- unprotected channel /POY2W/	\$1,500.00	\$1,125.00	\$1,950.00
- protected channel /POY2P/	3,000.00	2,250.00	3,900.00
OC-3/OC-12 Sub-Rate System <sup>/1/</sup>			
- unprotected channel /POY3W/	1,000.00	750.00	1,300.00
- protected channel /POY3P/	2,000.00	1,500.00	2,600.00
OC-12/OC-12c Riding Circuit <sup>/1/2/</sup>			
- unprotected channel /POY5W/	500.00	375.00	700.00
- protected channel /POY5P/	1,000.00	750.00	1,400.00

/3/

/1/ Available only where facilities and equipment permit.

/3/

/2/ Available only when ordered with OC-3/OC-12 Sub-Rate System.

/3/

/3/ Material formerly appeared in Part 15, Section 3, Sheet 150.1.

**MULTI-SERVICE OPTICAL NETWORK RING SERVICE (cont'd)**

/1/

**F. Prices (cont'd)**

## 2. Payment Plans

• **Term Payment Plans**

MON Ring Service TPP provides the customer with discounted tariff rates for a 36- or 60-month period.

After the expiration of 25 months of a 36-month TPP term or 42 months of a 60-month TPP term, any MON Ring components added to the existing service configuration provided under that TPP will be billed under the tariffed monthly extension rates.

Refer to Term Payment Plans in Part 15, Section 1.

• **Single Payment Option (SPO)**

A single payment option is available for this service. Refer to Term Payment Plans in Part 15, Section 1 for calculating Single Payment Options.

## 3. Termination Charges

Termination Charges will apply to services terminated prior to the contracted period. For purposes of applying Termination Charges, all rate elements making up a MON Ring service are subject to Termination Charges.

If, during the duration of the TPP, the customer wishes to rearrange or move a Customer Premises Node, a Termination Charge will apply.

Refer to Termination Charges in Part 15, Section 1 for calculating Termination Charges.

/1/

## 4. Credit Allowance

/2/

A credit allowance will be given for interruptions of service. An interruption of service will start when an inoperative service is reported to the Company and end when the service is operative.

Any protected service interruption of greater than 10 consecutive seconds as a result of a failure on the protected portion of the circuit will result in a credit equal to one month's bill for the individual port-to-port connections involved.

If the interruption occurs on an unprotected portion of the circuit, normal terms and conditions for credit allowances will apply.

In any month, as a result of an interruption, the total credit per rate element of the interrupted service may not exceed 100 percent of the monthly charge for that particular rate element.

Refer to Credit Allowance in Part 15, Section 1 for calculating Credit Allowances.

/2/

---

/1/ Material formerly appeared in Part 15, Section 3, Sheet 151.

/2/ Material formerly appeared in Part 15, Section 3, Sheet 152.

**1. GIGAMAN® SERVICE**

/1/

Effective September 30, 2017, GigaMAN Service will no longer be available for purchase by new or existing customers. The Company will no longer accept orders for adds, moves, changes or new term plans for GigaMAN Service, and existing term plans may not be renewed, converted or extended. Following the expiration of a customer's existing GigaMAN term agreement, service will be provided on a month-to-month basis at the applicable monthly extension rates until the service is discontinued.

(N)

(N)

**A. Description**

/1/

GigaMAN Service is a service which provides the transmission of data at a discrete bit rate of 1 Gbps, in Ethernet format. This service can be used to connect customer-designated premises in a Node-to-Node configuration. Within a single network, one or more channels may be provided.

GigaMAN Service can be used to seamlessly extend customer local area networks to off-site locations such as data centers, storage locations or satellite office locations within the same metro area. Applications that could be used with GigaMAN Service include LAN-to-LAN connectivity, CAD/CAM file transfer, telemedicine and business continuity transport.

**B. Definitions**Channel Mileage (CM)

Provides for the transmission facilities between the serving wire centers associated with the designated customer premises.

Repeater (RPTR)

A repeater (circuit regenerator) will be used to extend the transmission of GigaMAN Service. The Company will determine when repeaters are necessary. In addition, the first repeater in a multi-repeater circuit will be used for service alarming and monitoring purposes.

Node Termination (NT)

Provides for the communications path between the customer-designated premises and the serving wire center of that premise, or between two customer-designated premises.

Wire Center Termination (WCT)

Provides for the termination of digital transmission facilities between two or more serving wire centers. These transmission facilities are categorized as channel mileage, as described above.

/1/

GigaMAN is a registered trademark of AT&T Intellectual Property

/1/ (C)

/1/ Material formerly appeared in Part 15, Section 4, Sheet 1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**C. Terms and Conditions**

In addition to regulations set forth elsewhere in this Guidebook, the following regulations apply to GigaMAN Service:

1. The customer provided equipment (CPE) must deliver the data signal for the GigaMAN transport within the industry specification for the subscribed data service. See Paragraph E. - *Technical References*.
2. GigaMAN provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals generated by CPE, for the quality of or defects in such transmission, for the reception of signals by CPE, or address signaling to the extent addressing is performed by CPE. Error detection and correction of data generated by CPE is the customer's responsibility.
3. GigaMAN is designed to provide connectivity at the discrete bit rate of 1 Gbps. The service is considered interrupted when the customer reports to the Company and the Company confirms that continuity has been lost.
4. GigaMAN Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges may apply.
5. Node terminations are not allowed in Company wire centers.
6. GigaMAN Service is not available in a meet-point billing arrangement involving other Carrier's.
7. Interoffice mileage is calculated using the V and H coordinate method described in Part 15, Section 1 of this Guidebook.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 2.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**C. Terms and Conditions (Cont'd)**

8. Repeaters (circuit regenerators) will be located in Company wire centers as required. A monthly charge will be associated with each repeater network element, except for the first repeater in a circuit path (as the first repeater is also used for service alarming and monitoring purposes). GigaMAN circuits provisioned prior to November 19, 2003 may not have required a repeater.
9. Route diversity options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. Route diversity requires two GigaMAN Services purchased by the same customer of record. Route diversity is only available to customers with service installed after November 19, 2003.
10. Additional repeaters (circuit regenerators) may be required on the diverse or alternately routed path when Protection options are ordered by the customer. The need for repeaters on the protected path will be determined by the Company. Additional charges will apply.
11. Channel Mileage charges are applicable on both paths of the GigaMAN Service when any of the Protection Options are ordered.
12. If Protection Options are added to an existing GigaMAN circuit that was installed after November 19, 2003, a temporary service interruption will result as the new protected circuit must be re-designed and re-installed. Termination Charges will not apply for the circuit redesign (see *Term Pricing Plan* following for requirements). This installation must occur during an agreed-upon maintenance window between a designated customer representative and the Company. The customer will be responsible for providing adequate floor space, as determined by the Company, to accommodate additional equipment bays and related power protection equipment (such as batteries). Protection Options are contingent on availability of equipment and fiber facilities from premise to premise. Other Special Construction charges, as necessary, may apply.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Page 2.1.



**1. GIGAMAN® SERVICE (Cont'd)**

/1/

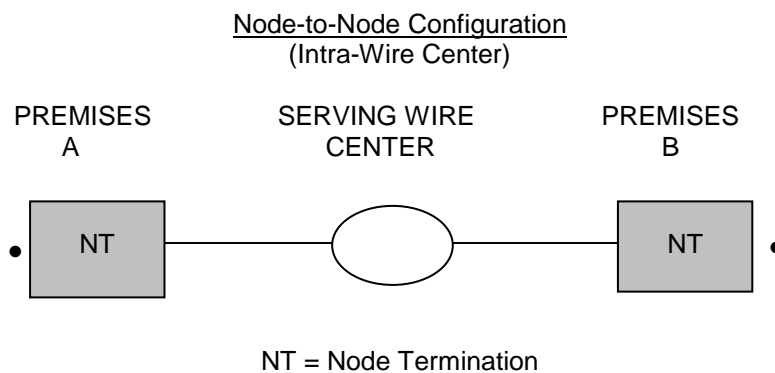
**D. Features****1. Standard Features**

All basic service configurations provide full duplex transmission. There is one type of GigaMAN Service configuration: Node-to-Node Service.

Node to Node Service

A Node-to-Node configuration connects two customer-designated premises either inter- or intra-wire center.

The following diagram depicts a Node-to-Node configuration connecting two customer-designated premises served from the same wire center.



Applicable service elements are:

- Node Termination (two applicable)

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 3.

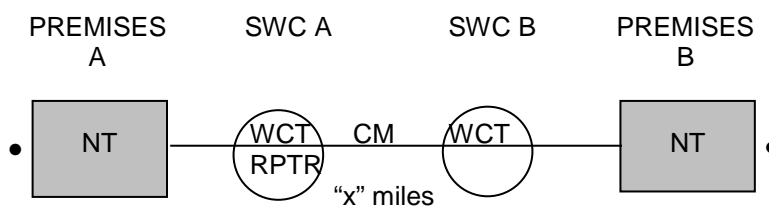
**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****1. Standard Features (Cont'd)**Node to Node Service (cont'd)

The following diagram depicts a Node-to-Node configuration connecting two customer-designated premises with serving wire centers located "x" miles apart.

Node-to-Node Configuration ("x" miles apart)  
(Inter-Wire Center)



NT = Node Termination  
WCT = Wire Center Termination  
CM = Channel Mileage  
SWC = Serving Wire Center  
RPTR = Repeater (where required)

Applicable service elements are:

- Node Termination (two applicable)
- Wire Center Termination (two applicable)
- Channel Mileage ("x" miles)
- Repeater (where required)

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 4.

**1. GIGAMAN® SERVICE (Cont'd)**

/2/

**D. Features (Cont'd)****2. Optional Features**

Diversity and Protection Options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. End-to-end diversity can be achieved by coupling Alternative Wire Center Diversity with Inter-Wire Center Diversity, in those instances where each end of a circuit is served out of different serving wire centers. Diversity and Protection Options are only available to customers with service installed after November 19, 2003. In addition to charges for the various Protection Options, normal charges for the Node Termination, Wire Center Termination and Channel Mileage will apply. Protection Options provide additional levels of reliability to GigaMAN Service. There are multiple options for Protection at each end of a two point circuit. The options at each end do not need to be the same, but both ends must include some form of Protection, for any to be offered. A GigaMAN circuit cannot include Protection at only one end (excluding Power Protection which can be at just one end, or both ends, of the circuit).

The following options are available for Diversity:

- Local Channel Diversity
- Inter-Wire Center Diversity
- Alternate Wire Center Diversity

The following options are available for Protection:

- Equipment Only Protection
- Equipment Plus Fiber Path Protection, with ...
  - Alternate Wire Center Path Protection, or
  - Local Channel Path Protection
- Inter-Wire Center Path Protection<sup>/1/</sup>
- Power Protection

/2/

/1/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit.

/2/  
/2/

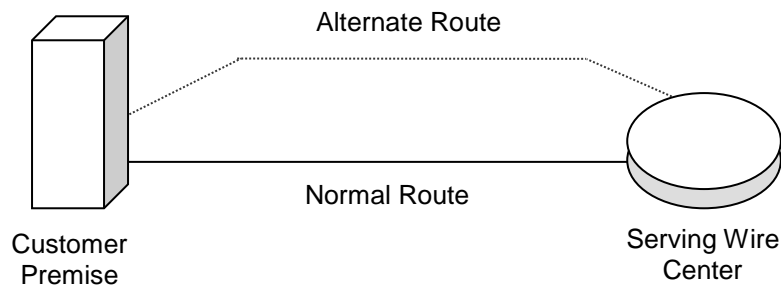
/2/ Material formerly appeared in Part 15, Section 4, Sheet 4.1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Local Channel Diversity

Local Channel Diversity provides for a transmission path between a designated customer premise and the standard serving wire center (SWC) that is diverse from the normal/standard transmission path. Local Channel Diversity requires two eligible services purchased by (or for the benefit of) the same customer. The Company will determine which services are eligible based on technical or operational limitations. With this arrangement, one or more node termination channels will be provisioned over the standard route and one or more node termination channels will be provisioned over a diverse route. Local channel diversity does not provide for full diversity; it only allows for diversity from the splice point closest to the customer's property line to the SWC. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer's premise, at the customer's expense.



/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.

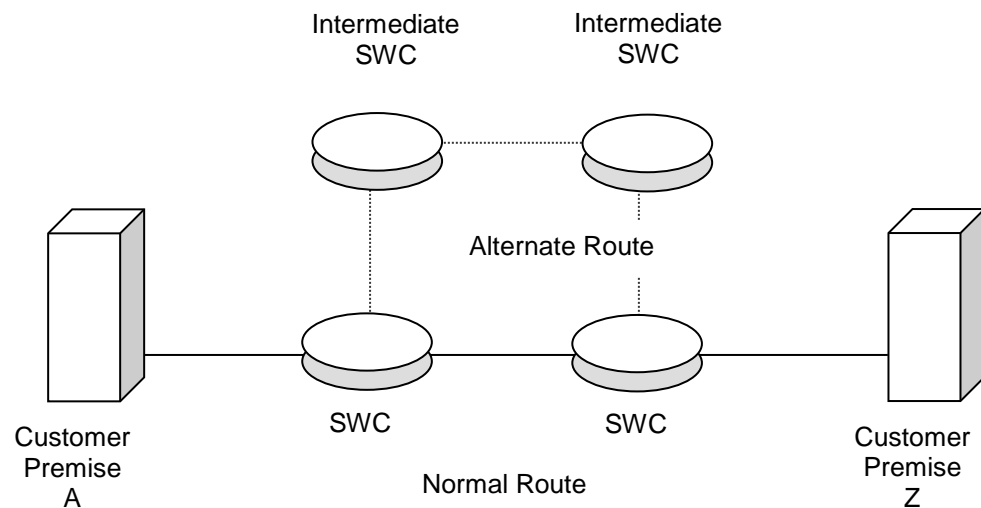
**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Inter-Wire Center Diversity

Inter-Wire Center Diversity arrangements presume that each end of a GigaMAN node termination channel is served out of a different serving wire center (SWC). This arrangement provides a transmission path for GigaMAN node termination channels between the customer's designated SWC and the serving wire center at the distant end of the circuit, over a transmission path that is separate from the standard transmission path between the two wire centers. Interoffice mileage will be calculated between the intermediate serving wire centers along the circuit path of the diversely routed GigaMAN Service. Inter-Wire Center Diversity requires two eligible services purchased by (or for the benefit of) the same customer. The Company will determine which services are eligible based on technical or operational limitations.

Inter-wire center diversity does not provide for full diversity; it only offers interoffice diversity. If a customer desires full diversity, Alternate Wire Center Diversity must be implemented along with Inter-Wire Center Diversity. Additionally, arrangements must be made for constructing dual entrance facilities at the customer's premise, at the customer's expense.



/1/

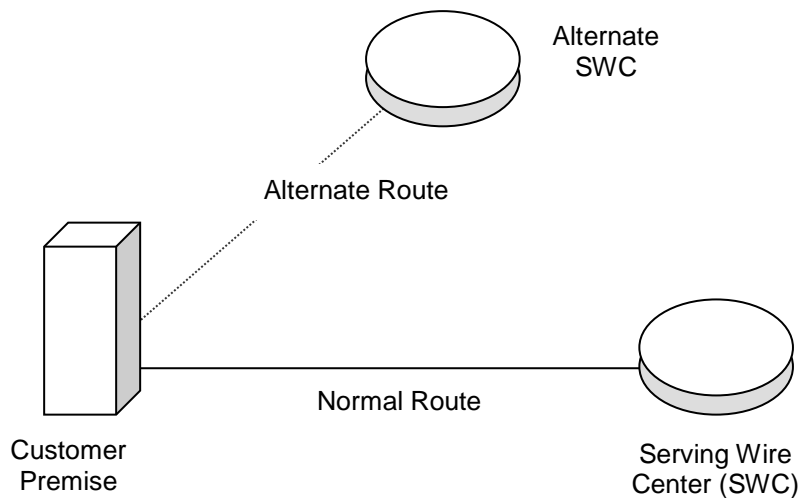
/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Alternate Wire Center Diversity

Alternate Wire Center Diversity is for the local loop only. It provides a node termination transmission path for GigaMAN service between the customer's designated premises and a wire center that is not the normal (or standard) serving wire center. The Company will choose the alternate wire center closest to the customers designated premise that is capable of providing GigaMAN Service over the alternate route. Alternate Wire Center Diversity does not require the purchase of two GigaMAN Services by (or for the benefit of) the same customer, nor does it require the customer to have an existing GigaMAN circuit operating over the normal (or standard) route to the normal (or standard) serving wire center. With this arrangement, one or more node termination channels will be provisioned over the alternate route. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer's premise, at the customer's expense.



/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.2.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Equipment Only Protection

Equipment Only Protection offers a network design where one GigaMAN signal will be routed down two different fiber pairs that co-exist in the same cable and conduit structure, and terminate at the customer's premise in the same device (but into separate and distinct modules). Protection switching will occur between the modules if necessary. Should one fiber pair or network element become defective, service will be maintained through 50 millisecond protection switching within the network terminating equipment (NTE) at the customer's demarcation point. If both fiber pairs are cut, an Out Of Service condition will result. This form of protection can only be ordered per loop (per end) for each circuit the customer wishes to protect.

Equipment Plus Fiber Path Protection

Equipment Plus Fiber Path Protection offers varying degrees of path protection for each terminating end of the circuit. For circuits that are served by different wire centers, Equipment Plus Fiber Path Protection may be combined with Inter-Wire Center Path Protection, to ensure a fully-protected circuit.

Equipment Plus Fiber Path Protection, with

Alternate Wire Center Path Protection

One GigaMAN (1 Gbps) signal will be routed over one fiber pair of the protected circuit from the customer's premise to the normal serving wire center, and a duplicate GigaMAN (1 Gbps) signal will be routed over a diversely routed fiber pair to the Alternate Wire Center selected by the Company. If any location between the fiber paths is closer than 10 feet, the location or locations will be disclosed to the customer. The customer will determine whether to accept the engineered path, or agree to pay Special Construction Charges to have a completely diverse route constructed in those instances where there is not a minimum separation of 10 feet between paths. The customer can also select Equipment Only Protection for an inter-office segment where facilities are not available. This option can be selected for one or both terminating ends. If an equipment failure or fiber cable cut occurs in a segment of the circuit that has this form of protection, the circuit will be switched to the alternate path in 50 milliseconds or less. If a customer desires full path diversity, arrangements must be made for constructing dual entrance facilities into the customer's premise, at the customer's expense.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.3.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Equipment Plus Fiber Path Protection (cont'd)Equipment Plus Fiber Path Protection, with (cont'd)Local Channel Path Protection

The two fiber pairs of the protected service will be routed diversely to the normal serving wire center. If any location between the fiber paths is closer than 10 feet, the location or locations will be disclosed to the customer. The customer will determine whether to accept the engineered path, or agree to pay Special Construction Charges to have a completely diverse route constructed. This option can be selected for one or both terminating ends. If an equipment failure or fiber cable cut occurs in a segment of the circuit that has this form of protection, the circuit will be switched to the alternate path in 50 milliseconds or less. If a customer desires full path diversity, arrangements must be made for constructing dual entrance facilities into the customer's premise, at the customer's expense.

Inter-Wire Center Path Protection

Each fiber pair is routed through different Central Offices between the two serving wire centers, or between the standard serving wire center and an alternate serving wire center. Inter-Wire Center Protection begins at the first manhole out of the Central Office. If only the two serving wire centers are involved, the two fiber pairs will be routed down two fiber paths that are separated by at least 10 feet. If any location between the fiber paths is closer than 10 feet, the location or locations will be disclosed to the customer. The customer will determine whether to accept the engineered path, or agree to pay Special Construction Charges to have a completely diverse route constructed. The customer will receive Equipment Only Protection for an inter-office segment where facilities are not available. If an equipment failure or fiber cable cut occurs on one of the inter-office routes, the circuit will be switched to the alternate path in 50 milliseconds or less. Interoffice mileage will be calculated between the intermediate serving wire centers along the circuit paths of both protected fiber pairs.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.4.



**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**D. Features (Cont'd)****2. Optional Features (Cont'd)**Power Protection

Power Protection provides customers with battery back-up for up to eight (8) hours to maintain GigaMAN equipment in case of a power failure. Power Protection is provided on a per rack or cabinet basis, and customers in a multi-tenant building will require separate equipment and bays dedicated to each customer. Power Protection is not available for installations using a wall mounted cabinet. Requests for Power Protection are subject to equipment availability and compatibility. Upon receipt of a customer request for Power Protection, the Company will determine the availability, design and engineering requirements for Power Protection, and the appropriate number of service element charges to apply. The addition of Power Protection to existing GigaMAN Service will result in a temporary service interruption.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 5.5.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**E. Technical References**

The customer interface to GigaMAN Service is as specified in:

<u>Subject</u>	<u>Technical Reference</u>
Ethernet Standards for the SBC Local Exchange Companies	SBC-TP-76412-000
Network Performance Parameters for Dedicated Digital Services – Definitions and Measurements	ANSI T1.503-2002

The Technical Reference can be obtained from:

APEX Support Team  
(734) 523-7348

The ANSI publication can be obtained from:

Alliance for Telecommunications Industry Solutions  
1200 G. Street, NW Suite 500  
Washington, DC 20005

/1/

/1/ Material formerly appeared in Part 15, Section 14, Sheet 6.

**1. GIGAMAN® SERVICE (Cont'd)**

/3/

**F. Prices****1. Service Elements**

<u>Description /Billing Code/</u>	<u>Nonrecurring Charge</u>
Administrative Charge <sup>/1/</sup>	
- per service order /ORCMX/	\$140.00
Design and Central Office Connection Charge <sup>/1/</sup>	
- per circuit /NRBCL/	230.00
Customer Connection Charge <sup>/1/</sup>	
- per premises node and wire center terminations /NRBBL/	755.00
Protection Options	
Per terminating end	
- Equipment Only /CPAEX/	625.00
- Equipment Plus Fiber Path Protection, with ...	
Alternate Wire Center Path Protection /CPAFX/, or	1,400.00
Local Channel Path Protection /CPAGX/	1,225.00
Per rack or cabinet	
- Power Protection /VBBGX/	475.00
Per circuit	
- Inter-Wire Center Path Protection <sup>/2/</sup> /CPAHX/	625.00

/3/

/1/ Nonrecurring charges will be waived for those customers selecting the 36 or 60 month Term Payment Plan (TPP) period for new service. /3/

/2/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit. /3/

/3/ Material formerly appeared in Part 15, Section 4, Sheet 7.

## 1. GIGAMAN® SERVICE (Cont'd)

/2/

## F. Prices (Cont'd)

## 1. Service Elements (Cont'd)

Description <u>/Billing Code/</u>	Monthly Payment <i>Term Payment Plans</i>				Monthly <u>Extension</u>
	<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60 Months</u>	
Node Termination					
- per point of termination /N2TDX/	\$3,300.00	\$3,100.00	\$2,850.00	\$2,500.00	\$3,800.00
Wire Center Termination					
- per termination /CTJ/	125.00	110.00	100.00	50.00	125.00
Channel Mileage					
- per inter-wire center mile /3LN5S/	125.00	115.00	100.00	75.00	125.00
Repeater					
- each /VU4/	2,400.00	1,700.00	1,150.00	850.00	2,500.00
- each /M1RGX// <sup>1/</sup>	2,400.00	-	1,150.00	850.00	2,500.00
Diversity Options					
- Local Channel /CPALX/	750.00	750.00	750.00	750.00	750.00
- Inter-Wire Center /CPATX/	500.00	500.00	500.00	500.00	500.00
- Alternate Wire Center /CPAAX/	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00

/2/

/1/ Effective September 24, 2003, service arrangements utilizing a legacy mid-span repeater (/M1RGX/) are grandfathered and no longer available for new customers. Should existing customers utilizing a legacy mid-span repeater disconnect (or relocate one end of) their service, the legacy mid-span repeater will no longer be available. The new equipment platform must be used in those scenarios.

/2/

/2/ Material formerly appeared in Part 15, Section 4, Sheet 8.

/2/

**1. GIGAMAN® SERVICE (Cont'd)**

/2/

**F. Prices (Cont'd)****1. Service Elements (Cont'd)**

Description <u>/Billing Code/</u>	Monthly Payment <i>Term Payment Plans</i>					Monthly <u>Extension</u>
	<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60 Months</u>		
Protection Options Per terminating end						
- Equipment Only /CPAEX/	\$1,375.00	\$1,225.00	\$1,050.00	\$900.00		\$1,500.00
- Equipment Plus Fiber Path Protection, with ... Alternate Wire Center Path Protection /CPAFX/ Local Channel Path Protection /CPAGX/	2,050.00	1,840.00	1,600.00	1,400.00		2,460.00
	1,825.00	1,650.00	1,425.00	1,225.00		2,190.00
Per rack or cabinet						
- Power Protection /VBBGX/	625.00	525.00	480.00	435.00		700.00
Per circuit						
- Inter-Wire Center Path Protection <sup>/1/</sup> /CPAHX/	375.00	200.00	150.00	100.00		475.00

/2/

/1/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit.

/2/

/2/

/2/ Material formerly appeared in Part 15, Section 4, Sheet 8.1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****2. Payment Plans**

- Term Payment Plans

GigaMAN Service is only available under the Term Payment Plan (TPP) whereby customers must select either a 12, 24, 36 or 60 month period. After the selected Term Payment Plan period is satisfied, the monthly extension price will apply unless a new TPP is selected.

Refer to *Term Payment Plans* in Part 15, Section 1. Customers re-negotiating an existing term payment plan contract expiring after November 19, 2003 will be required to migrate to the new equipment platform.

- Single Payment Option (SPO)

A single payment option is available for this service. Refer to *Term Payment Plans* in Part 15, Section 1 for calculating Single Payment Options.

- Deferred Payment Option (DPO)

A deferred payment option is not available for this service.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****3. Termination Charges**

Termination Charges will apply to service terminated prior to the contracted period. Refer to Termination Charges in Part 15, Section 1 for calculating Termination Charges.

Effective September 24, 2003, the Company migrated to a new equipment platform in support of GigaMAN Service. As of September 24, 2003, customers who request a conversion from the legacy GigaMAN platform to the new equipment platform will be allowed to do so under the following conditions:

- The customer must issue a disconnect order for their legacy GigaMAN Service and place a service order for GigaMAN Service using the new equipment platform. Termination Charges for the legacy service will be waived. Standard nonrecurring charges to install GigaMAN Service using the new equipment platform will apply.
- The term of the new contract must be equal to or greater than the remaining time left on the legacy GigaMAN contract.

Migration is contingent on availability of fiber from premise to premise. Other Special Construction charges, as necessary, may apply.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****3. Termination Charges (Cont'd)**

For circuits installed after November 19, 2003, customers will be permitted to move one end of a GigaMAN Service to another location, without incurring Termination Charges, given the following conditions are met:

- The customer must issue a disconnect order for the existing location and place a new service order for GigaMAN Service at the new location. Termination Charges for the existing location will be waived. Standard nonrecurring charges to install GigaMAN Service as a new circuit will apply.
- Negotiated down time will apply, as the new circuit will need to be designed and installed.
- The term of the new contract must be equal to or greater than the remaining time left on the existing GigaMAN contract.
- The existing GigaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing GigaMAN Service with 1-year contracts will not be eligible for this Moves option.

Moves are contingent on availability of fiber from premise to premise. Other Special Construction charges, as necessary, may apply.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.1.1.



**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****3. Termination Charges (Cont'd)**

Customers will be permitted to add Protection Options to existing GigaMAN Service that was installed after November 19, 2003, without incurring Termination Charges, given the following conditions are met:

- The customer must issue a disconnect order for the existing circuit and place a service order for the newly protected circuit. Termination Charges for the existing circuit will be waived. Standard nonrecurring charges to install the newly protected GigaMAN Service will apply. (The conditions described here do not apply to Power Protection added to an existing GigaMAN circuit.)
- Negotiated down time will apply, as the new circuit will need to be designed and installed.
- The term of the new contract must be equal to or greater than the remaining time left on the existing GigaMAN contract. (The conditions described here do not apply to Power Protection added to an existing GigaMAN circuit.)
- The existing GigaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing GigaMAN Service with 1-year contracts will not be eligible for this option. (The conditions described here do not apply to Power Protection added to an existing GigaMAN circuit.)

Addition of Protection Options are contingent on availability of equipment and fiber facilities from premise to premise. Other Special Construction charges, as necessary, may apply.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.1.2.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****3. Termination Charges (Cont'd)**

For service installed after July 10, 2007, customers will be permitted to upgrade to a higher-speed service provided by the Company, without incurring Termination Charges, given the following conditions are met:

- an upgrade is considered an increase in speed or capacity when comparing GigaMAN Service to the new service.
- the customer must issue a disconnect order for the existing GigaMAN Service and place a service order for the new, higher-speed service, such that there is no more than 90 days overlap in service.
- the same customer locations must be utilized for the new, higher speed service.
- the expiration date for the new, higher-speed service is beyond the end of the original TPP term associated with the existing GigaMAN Service.
- the existing GigaMAN Service must have been in service for a minimum period of 12 months for a 24-month contract, 15 months for a 36-month contract or 18 months for a 60-month contract. Existing GigaMAN Service with 12-month contracts will not be eligible for this Upgrade option.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.1.2.1.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****3. Termination Charges (Cont'd)****Migration to AT&T Dedicated Ethernet**

Customers subscribing to GigaMAN Service may migrate to AT&T Dedicated Ethernet provided by the Company without incurring Termination Charges, subject to the following conditions:

- The new AT&T Dedicated Ethernet and the existing GigaMAN Service must be billed to the same customer of record at the same customer locations.
- The customer's existing service must have been in place for at least 12 months.
- The minimum term for the new service must be at least 12 months and must be equal to or greater than the number of months remaining in the customer's existing Term Payment Plan (TPP) term.
- The speed (capacity/bandwidth) of the new service must be equal to or great than that of the existing service.
- The customer must issue a disconnect order for the replaced GigaMAN Service to be effective within 90 days after the AT&T Dedicated Ethernet installation date. The disconnect and new orders must be coordinated through the Company.
- If overlapping service is required, the period will be limited to not more than 90 days and billing will apply to both services during the time both services are available.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.1.2.2.

**1. GIGAMAN® SERVICE (Cont'd)**

/1/

**F. Prices (Cont'd)****4. Credit Allowance**

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this tariff or in the event that the protective controls applied by the Company result in the complete loss of service by the customer. An interruption period starts when an inoperative service is reported to the Company and the Company confirms that continuity has been lost, and ends when the service is operative.

In case of an interruption to service, allowance for the period of interruption, if not due to the negligence of the customer or the customer's end user, shall be as follows: no credit shall be allowed for an interruption of less than 10 seconds. The customer shall be credited for an interruption of 10 seconds or more as follows: the credit shall be at the rate of 10/8640 of the monthly charges for the service for each period of 5 minutes or major fraction thereof that the interruption continues. The credit allowance(s) for service interruptions shall not exceed 100% of the applicable monthly rates.

The Company's failure to provide or maintain services under this tariff shall be excused by force majeure events such as, but not limited to, an earthquake, hurricane, flood, fire, storms, tornadoes, explosion, lightning, power surges or failure, fiber cuts, strikes or labor disputes, acts of war, civil disturbances, acts of civil or military authorities or public enemy, governmental orders, civil commotion, criminal actions taken against the Company, acts of God and other circumstances beyond the Company's reasonable control.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 9.2.

(D)

(D)

(D)

(D)



(D)

(D)

(D)

(D)

(D)

(D)

(D)

(D)



**5. DS3 SERVICE PACKAGES /1/****R. TERM PAYMENT PLANS (cont'd)**

/2/

**Renewal Options**

1.

**Term Payment Plan Renewal Program Option**

Term Payment Plan Renewal Program Option (cont'd) Customers may upgrade to a larger DS3 Service Package at the same time as the service is renewed under the TPP Renewal Program. However, the customer will be provided a renewal credit based on the Service Package that was in place prior to the upgrade. If the customer subsequently terminates the larger DS3 Service Package prior to the expiration of the renewed TPP term, or downgrades to a Service Package that is smaller than the Service in place prior to the upgrade, the customer will be liable for an TPP renewal termination charge equal to the original TPP renewal credit.

The following TPP renewal credits will apply to any orders for TPP renewal received under the TPP Renewal Program between July 8, 1997, and July 7, 1998.

The following renewal credits will apply to existing 36-month TPP service components renewed under the TPP Renewal Program.

<u>Service Component</u>	<u>TPP Renewal Credit</u>	
	<u>36 Months</u>	<u>60 Month</u>
DS3 Service Package with Electrical Interface		
DS3 ( 1 package)	\$580.00	\$1,160.00
DS3B ( 2 package)	1,120.00	2,240.00
DS3C ( 3 package)	1,580.00	3,180.00
DS3F ( 6 package)	2,840.00	5,670.00
DS3L (12 package)	4,210.00	8,420.00
DS3X (24 package)	6,450.00	12,890.00

/2/

- /1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.
- /2/ Material formerly appeared on Original Sheets 26-29.2 in Part 15, Section 1 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****R. TERM PAYMENT PLANS (cont'd)**

/2/

**Renewal Options**

## 1. (cont'd)

Term Payment Plan Renewal Program Option (cont'd)

The following renewal credits will apply to existing 60-month TPP service components renewed under the TPP Renewal Program.

Service Component	TPP Renewal Credit	
	<u>36 Months</u>	<u>60 Month</u>
DS3 Service Package with Electrical Interface		
DS3 ( 1 package)	\$970.00	\$1,940.00
DS3B ( 2 package)	1,870.00	3,730.00
DS3C ( 3 package)	2,650.00	5,300.00
DS3F ( 6 package)	4,730.00	9,450.00
DS3L (12 package)	7,020.00	14,040.00
DS3X (24 package)	10,740.00	21,480.00

/2/

- /1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.
- /2/ Material formerly appeared on Original Sheets 26-29.2 in Part 15, Section 1 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****R. TERM PAYMENT PLANS (cont'd)****Termination Charges****3. DS3 Service Packages**

/2/

- Service discontinued in the first through 11th month

$((.85 \times 12\text{-month TPP price}) \times (12 - \text{number of months in service})) + ((12\text{-month TPP price} - \text{subscribed to TPP price}) \times \text{number of months in service}) = \text{Termination Charge}$

Example:

A customer subscribed to a 36-month TPP term and disconnected service at the end of the fifth month. This customer's termination charge would be:

$((.85 \times 12\text{-month TPP price}) \times (12 - 5 \text{ months})) + ((12\text{-month TPP price} - 36\text{-month TPP price}) \times 5 \text{ months}) = \text{Termination Charge}$

All recurring price termination charges will be based on the TPP prices in effect at the time of termination.

/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material also appears on Sheets 29.2-29.3 in Part 15, Section 1 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd)/1/****R. TERM PAYMENT PLANS (cont'd)**

/2/

**Termination Charges****3. DS3 Service Packages (cont'd)**

- Service discontinued in the 12th through 60th month

The dollar difference between the current TPP price for the TPP term that could have been completed during the time the service was actually in service and the customer's current TPP price for each month the service was provided.

Example:

A customer subscribes to a 60-month TPP term and disconnected service during the 37th month. This customer's termination charge would be:

$$(36\text{-month TPP price} - 60\text{-month TPP price}) \times 37 = \text{Termination Charge}$$

The 36-month TPP term could have been completed during the months the service was actually in service.

All recurring price termination charges will be based on the TPP prices in effect at the time of termination.

/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material also appears on Sheets 29.2-29.3 in Part 15, Section 1 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****B. DEFINITIONS****DS3 Service Channel<sup>/1/</sup>**

The individually activated DS3 channel(s) within a DS3 Service Package.

**DS3 Service Package<sup>/1/</sup>**

Provides the capability to provision a maximum number of DS3 channels.

**Local Distribution Channel**

Provides interconnection between the Company Serving Wire Center (SWC) and the customer premises. Consists of two rate elements: DS3 Service Packages and DS3 Service Channels.

- /1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.
- /2/ Material formerly appeared on Sheets 32-40 in Part 15, Section 3 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****C. TERMS AND CONDITIONS**

/2/

In addition to the Terms and Conditions set forth in Part 15, Section 1, the following applies to Ameritech DS3 Service.

**1. DS3 Service Package<sup>/1/</sup>**

Each DS3 Service Package must have a minimum number of service channels activated at all times. A new DS3 Service Package must be installed with at least the minimum required Service Channels. A customer may not disconnect Service Channels from an existing DS3 Service Package below the minimum required in that package without downgrading the Service Package size or terminating the Ameritech DS3 LDC Service.

<u>DS3 Service Package (with Electrical Interface)</u>	<u>Minimum Required SCs</u>	<u>Maximum Available SCs</u>
DS3	1	1
DS3B	1	2
DS3C	1	3
DS3F	3	6
DS3L	7	12
DS3X	13	24

/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material also appears on Sheets 32-40 in Part 15, Section 3 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****C. TERMS AND CONDITIONS (cont'd)****1. DS3 Service Package<sup>/1/</sup> (cont'd) /2/**

Ameritech DS3 Service Packages are available with an optical channel interface. These Ameritech DS3 Service Packages provide a single optical interface for multiple DS3 Service Channels (SCs) and are available as follows:

<u>DS3 Service Package (with Electrical Interface)</u>	<u>Minimum Required SCs</u>	<u>Maximum Available SCs</u>	
DS3012	1	12	
DS3024	13	24	/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material formerly appeared on Sheets 32-40 in Part 15, Section 3 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****C. TERMS AND CONDITIONS (cont'd)****1. DS3 Service Package<sup>/1/</sup> (cont'd)**

/2/

All DS3 service channels within the package must be ordered for termination at the same customer designated premises, billed to the same customer and in the same Serving Wire Center (SWC). All service channels in a package are required to be connected to other service components (i.e., channel mileage, multiplexing, or another service channel) at the time the service channel is installed, except at the fiber hub.

The interconnection of individual service channels with other components, such as channel mileage and multiplexing, may be different. For example, one service channel within the package may have multiplexing, while another service channel may have channel mileage associated with it. Components connected to each service channel in the service package may have different Term Payment Plans periods from the service package in which the service channels reside.

/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material formerly appeared on Sheets 32-40 in Part 15, Section 3 of this Tariff.



**5. DS3 SERVICE PACKAGES (cont'd) <sup>/1/</sup>****F. PRICES (cont'd)****1. Service Elements (cont'd)**

Description /Billing Code/	Monthly Payment Term Payment Plans			
	12- Month	36- Month	60- Month	Monthly Extension
<b>Local Distribution Channel<sup>/1/</sup></b>				
- per point of termination Electrical Interface				
- per service package				
Zone 1				
DS3/PCG31/	\$ 2,070.00	\$ 855.00	\$ 608.00	\$ 2,400.00(I)
DS3B/PCG31/	3,200.00	1,652.00	1,173.00	3,700.00
DS3C/PCG31/	4,500.00	2,355.00	1,666.00	5,200.00
DS3F/PCG31/	7,950.00	4,590.00	2,970.00	9,150.00
DS3L/PCG31/	12,600.00	6,660.00	4,410.00	14,500.00
DS3X/PCG31/	18,900.00	9,450.00	6,750.00	21,750.00(I)

<sup>/1/</sup> DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

**5. DS3 SERVICE PACKAGES (cont'd) <sup>/1/</sup>****F. PRICES (cont'd)****1. Service Elements (cont'd)**

Description /Billing Code/	Monthly Payment Term Payment Plans			Monthly Extension
	12- Month	36- Month	60- Month	
<b>Local Distribution Channel<sup>/1/</sup> (cont'd)</b>				
- per point of termination Electrical Interface				
- per service package				
Zone 2				
DS3/PCG32/	\$ 2,139.00	\$ 901.00	\$ 643.00	\$ 2,475.00(I)
DS3B/PCG32/	3,290.00	1,739.00	1,239.00	3,800.00
DS3C/PCG32/	4,623.00	2,478.00	1,759.00	5,350.00
DS3F/PCG32/	8,170.50	4,743.00	3,069.00	9,400.00
DS3L/PCG32/	12,945.00	6,883.00	4,557.00	14,900.00
DS3X/PCG32/	19,425.00	9,765.00	6,975.00	22,350.00(I)

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

**5. DS3 SERVICE PACKAGES (cont'd) <sup>/1/</sup>****F. PRICES (cont'd)****1. Service Elements (cont'd)**

Description /Billing Code/	Monthly Payment Term Payment Plans			
	12- Month	36- Month	60- Month	Monthly Extension
<b>Local Distribution Channel<sup>/1/</sup> (cont'd)</b>				
- per point of termination Electrical Interface				
- per service package				
Zone 3				
DS3/PCG33/	\$ 2,300.00	\$ 933.00	\$ 668.00	\$ 2,650.00(I)
DS3B/PCG33/	3,500.00	1,801.00	1,286.00	4,100.00
DS3C/PCG33/	4,910.00	2,564.00	1,825.00	5,700.00
DS3F/PCG33/	8,685.00	5,100.00	3,300.00	10,000.00
DS3L/PCG33/	13,750.00	7,400.00	4,900.00	15,800.00
DS3X/PCG33/	20,650.00	10,500.00	7,500.00	23,750.00(I)

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

**5. DS3 SERVICE PACKAGES (cont'd) /1/****F. PRICES (cont'd)**

/2/

**1. Service Elements (cont'd)**

Description /Billing Code/	Monthly Payment Term Payment Plans			Monthly Extension
	12- Month	36- Month	60- Month	
<b>Local Distribution Channel<sup>/1/</sup> (cont'd)</b>				
- per point of termination Optical Interface				
- per service package				
Zone 1				
DS3012 /PCG31/	\$12,600.00	\$12,600.00	\$3,000.00	\$12,600.00
DS3024 /PCG31/	18,900.00	7,000.00	4,000.00	18,900.00
Zone 2				
DS3012 /PCG32/	12,600.00	12,600.00	3,000.00	12,600.00
DS3024 /PCG32/	18,900.00	7,000.00	4,000.00	18,900.00
Zone 3				
DS3012 /PCG33/	12,600.00	12,600.00	3,000.00	12,600.00
DS3012 /PCG33/	18,900.00	7,000.00	4,000.00	18,900.00

/2/

/2/

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.

/2/ Material also appears on Sheets 32-40 in Part 15, Section 3 of this Tariff.

**5. DS3 SERVICE PACKAGES (cont'd) <sup>/1/</sup>****F. PRICES (cont'd)****1. Service Elements (cont'd)**

Description /Billing Code/	Monthly Price
<b>DS3 Service Channel</b>	
- per termination	
Electrical	
Zone 1 /HZ4X1/	\$475.00(I)
Zone 2 /HZ4X2/	475.00
Zone 3 /HZ4X3/	475.00(I)
Optical	
Zone 1 /HZ4X1/	300.00
Zone 2 /HZ4X2/	300.00
Zone 3 /HZ4X3/	300.00

/1/ DS3 Service Packages will not be available to new customers after March 13, 2000. Customers with existing DS3 Service Packages may maintain their service as currently configured, or may add/reduce the number of active Service Channels within their existing Service Package configuration subject to the terms and conditions of this tariff. However, existing customers may not order new DS3 Service Packages, renew their DS3 Service Package TPP, or upgrade their DS3 Service Packages after March 13, 2000. Customers may convert their existing DS3 Service Package(s) to DS3 Service as offered after March 13, 2000 at no charge as long as the new TPP is of equal or longer term as their previous Service Package TPP and there is no decrease in the quantity of DS3 channels. DS3 Service Packages will not be available after March 12, 2005.