

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/}**A. General Description**

Multi-service Optical Network Ring (MON Ring) Service provides high volume optical transport utilizing multiplexing technology in a 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 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 the Company.

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.

Sub-Rate Systems

Sub-Rate System - provide a multiplexing system operating at 1.25 Gbps with 4 ports. Applicable to ESCONTM, Fast Ethernet, D1 Video, DVB-ASI, and OC-3/OC-3c port interfaces. Sub-rate multiplexing is offered at the serving wire center only for OC-3/OC-3c.^{/2/}

ESCONTM Sub-Rate System - provides a multiplexing system which allows customers to put up to 8 ESCONTM Channels (no other protocol) on one port card.

GigE/FC/FICONTM 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 FICONTM Channels (1.0625 Gbps) or any combination thereof, totaling two channels on the sub-rate system. Fibre Channel (2.125 Gbps) and FICONTM (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.

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.^{/3/}

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/2/ Available where facilities and equipment permit.

/3/ Available where facilities and equipment permit beginning November 30, 2005.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**A. General Description (cont'd)**

MON Ring Service offers the following port interfaces:

IBM Protocols:^{/2/}

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

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

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

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

ISC-3TM (1.0625 Gbps) – Inter-System Channel. ISC-3TM links have a peak data rate of 2.125 Gbps and can interconnect IBMTM eServer z900 systems for distances up to 100 km.

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/2/ ESCONTM, ETR/CLOTM, FICONTM, ISC-1TM, ISC-3TM, and GDPSTM are registered trademarks of the International Business Machines (IBM) Corporation, Armonk, NY 10504.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**A. General 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 is offered as a riding circuit where facilities and equipment permit. 1.0625 Gbps rate service capable of being multiplexed on the GigE/FC/FICONTM 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 1320 nm optical interface at 270 Mbps. Offered as a riding circuit where facilities and equipment permit.

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.^{/2/}

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.^{/2/}

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.^{/2/}

SONET OC-192/OC-192c - provides a fiber-based 9953.28 Mbps synchronous optical full duplex data transmission capability. Offered as a riding circuit where facilities and equipment permit.^{/2/}

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/2/ 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.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**A. General Description (cont'd)**

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 – Provides for the transmission facilities between the serving wire centers associated with the Central Office Nodes and Customer Premises Nodes.

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 Premise node, a Central Office Node, or at a serving wire center.

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 the signal if degradation exceeds the dispersion or optical amplifier noise limits.

Sub-Rate System – Allows for multiple ports, also called riding circuits, on a single wavelength.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**B. Regulations**

The regulations, rates and charges specified herein are in addition to other regulations, rates and charges as specified in this and other Company guidebooks.

1. The services provided for MON Ring Service are primarily designed to meet the private line communications requirements of business customers, and the regulations herein reflect the reasonable support on the part of the Company in assisting the customer in the ordering and provisioning of private line services. This assistance includes, but is not limited to, advice as to which private line service best meets the customer's requirements, taking into consideration the customer's present and future communications needs. In addition, the Company will continue to assist and advise the customers and cooperatively respond to the requirements of the customer until such time as the private line service is discontinued. The aforementioned level of assistance is considered to be part of the private line service offering and will be provided at no additional charge.
2. The customer-provided equipment must deliver the data signals for the MON Ring Service transport within the industry specification for the subscribed data services.
3. 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.
4. 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.
5. MON Ring Service may have distance limitations based on the services carried and may require routing through wire centers (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.
6. Optical Amplifiers and/or Regenerators may have to be added to a MON Ring Service subsequent to the initial installation.
7. When additional services are added, such installation may cause a service interruption to existing unprotected channels, or a protection switch on protected channels.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**B. Regulations (cont'd)**

8. 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 to a 32 wavelength MON Ring may not be available.
9. MON Ring Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges as set forth in D.4. in Part 15, Section 1, 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. 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 customer's designated premises.
14. Channel protection may not be available for all interface types.
15. Conversion from MON (point-to-point) Service to MON Ring Service is not available.
16. Conversions from any other lower speed services to MON Ring Service are not available.
17. Where conditions, equipment and facilities apply, 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.
18. Neither electrical interfaces nor optical add/drop multiplexing are available with this service.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**B. Regulations (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.

20. Allowance for Interruptions

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 as stated in paragraph D.8. in Part 15, Section 1 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.

C. Standard Configurations

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.

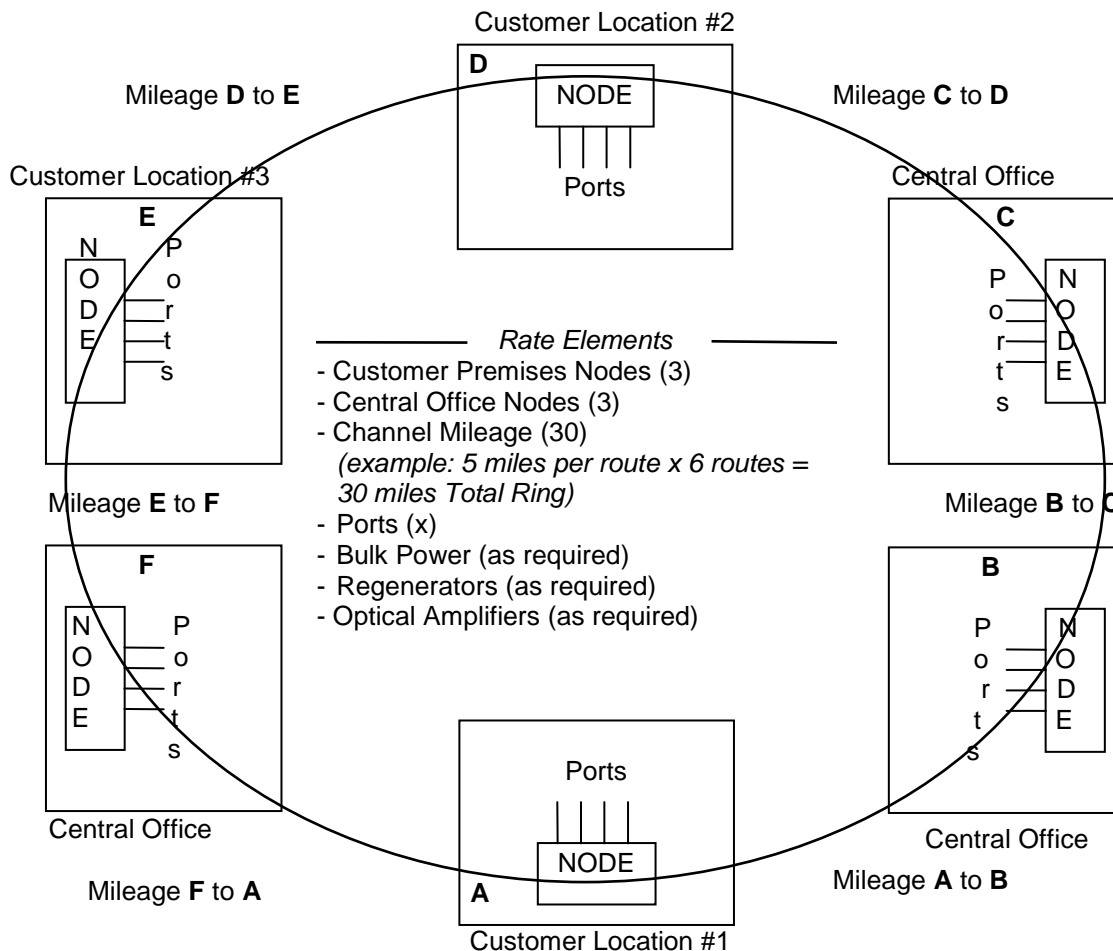
The minimum configuration would be two nodes either at a serving wire center or a customer premise site. If the nodes are not in a serving wire center, a central office management site for monitoring is required. An optical amplifier located at a serving wire center can be used as a monitoring site.

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

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**C. Standard Configurations (cont'd)**

Diagram of MON Ring



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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**D. Route Diversity**

- MON Ring Service is configured with diversely routed fiber whenever possible. MON Ring Service will be available 99.995% of the time and protected channels will switch within 50 milliseconds (not to exceed 2 seconds). Unprotected channels will be lost in the event of a fiber path failure on which the circuit is assigned. Equipment interfaces towards the customer are not protected.
- Routing of fiber may be diversified from the customer's property line to their serving wire center or alternate serving wire center as determined by the Company, and where facilities are available, to ensure that loop fibers follow separate paths to the serving wire center or alternate serving wire center. Interoffice facility (IOF) fiber paths may be diversely routed between serving wire centers or alternate serving wire centers. In addition, IOF fiber (if applicable) paths 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 serving wire center 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 dual entrance facilities. This special request may 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 the 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.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**E. Technical Specifications**

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

<u>Subject</u>	<u>Technical Reference</u>
Ameritech LAN Interconnect Service - Token Ring Interface Codes	AM-TR-NIS-000100
Ameritech LAN Interconnect Service - CSMA/CD Interface Specifications	AM TR-NIS-000104
Ameritech OC-3, OC-12, OC-48 and OC-192 Service Interface Specifications	AM-TR-NIS-000111
Ameritech Digital Service Transmission Parameters	AM-TR-TMO-000101
Ameritech Service's Network Channel and Network Channel Interface Codes	AM-TR-TMO-000080
Ameritech Technical Interface Specifications (ESCON TM)	AM-TR-NIS-000096
IBM Documentation (ESCON TM)	AM-TR-NIS-000107
Fibre Channel (also includes FICON TM and ISC TM)	IBM SA22-7202-XX
Fast Ethernet	IBM SA23-0394-XX
GigaBit Ethernet	ANSI X3.T9.3
D1 Video	ANSI/IEEE 802.3
	IEEE 802.3x and z
	IEEE 802.3ae
	ANSI/SMPTE 259M

The Technical References can be obtained from:

http://www.att.com/Large-Files/RIMS/Network_Interface_Specifications/index.html

The Telcordia Technologies Research Publication(s) can be obtained from:

Telcordia Technologies
8 Corporate Place
Piscataway, New Jersey 08854

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**F. Rate Element Description**

There are eight basic rate elements which may apply to MON Ring Service:

- Nonrecurring Charges
- Customer Premises Node
- Central Office Node
- Channel Mileage
- Optical Amplifier
- Regenerators
- Bulk Power
- Ports

1. Nonrecurring Charges

Nonrecurring Charges are one-time charges that apply for specific work activities (i.e., installation of new service, moves and rearrangements of installed services). There are three different Nonrecurring Charges: Administrative Charge, Design and Central Office Connection Charge and Customer Connection Charge.

- The Administrative Charge applies any time a customer initiates an order for service. This charge applies once per service order.
- The Design and Central Office Connection Charge applies to each service installed, and is charged once per each riding circuit.
- The Customer Connection Service Establishment Charge applies to establish the MON Ring network, and is charged per node. Subsequent Installation charges apply to each subsequent shelf installed after the MON Ring Network is established.

a. Service Rearrangements

Service rearrangements are changes to existing (installed) services which do not result in either a change in the minimum period requirements or a change in the physical location of the point of termination at a customer premises, and will be charged as follows:

- If changing the customer of record, the Administrative Charge will apply. For the change of customer of record to be treated as a service rearrangement, the new customer must assume liability for both current and prior charges for the service.
- For all other changes not requiring physical work at the central office or customer premises, including a change in the customer assigned circuit identification or billing account number (when initiated by the customer), the Administrative Charge will apply.
- For all other service rearrangements requiring physical work to be performed, the Administrative Charge will apply. Additionally, one Design and Central Office Connection Charge and/or one Customer Connection Charge will apply.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**F. Rate Element Description (cont'd)**

1. Nonrecurring Charges (cont'd)

b. Cancellation of Application for Service

1. When an applicant cancels an order for service, other than those provided by Special Construction:

- Prior to the issuance of an order, no charges apply.
- After the issuance of an order, Nonrecurring Charges apply as follows:
 - Canceled before the Record Issue Date (RID), the Administrative Charge applies.
 - Canceled on or after the RID, but before the Plant Test Date (PTD), the Administrative Charge and the Design and Central Office Connection Charge apply.
 - Canceled on or after the PTD, the Administrative Charge, Design and Central Office Connection Charge and Customer Connection Charge apply.

2. When an applicant cancels an order for service involving Special Construction:

- Prior to the issuance of an order, no charges apply.
- After the issuance of an order, but prior to the start of construction, all Nonrecurring Charges associated with the design of the Special Construction and the Administrative Charge will apply.
- After construction has begun:
 - If there is another requirement for the specially constructed facilities, the Administrative Charge, Design and Central Office Connection Charge, and the Customer Connection Charge will apply.
 - If there is no other use for the specially constructed facilities, a charge equal to all the costs incurred in the special construction (including overheads), less net salvage, applies in addition to the Administrative Charge, Design and Central Office Connection Charge, and the Customer Connection Charge.

Note: Installation or special construction of facilities for a customer starts when the Company incurs any expense in connection therewith which would not otherwise have been incurred and the customer has advised the Company to proceed with the installation or special construction.

2. Customer Premises Node

Provides for the termination of service at the customer's premises and presents the various selected ports to the customer. Applies per customer-designated premises, per first shelf and subsequent shelves.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**F. Rate Element Description (cont'd)**

3. Central Office Node

Provides for the termination of service at a Company serving wire center. Applies per first shelf and subsequent shelves.

4. Channel Mileage

Provides for the total airline distance between the serving wire center of each node involved on the MON Ring. The mileage measurement is developed utilizing the V&H coordinate method as set forth in the National Exchange Carrier Association, Inc. (NECA) Wire Center Information Tariff, FCC 4. 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.

5. Optical Amplifier

Provides for an optical signal boost if the distance between nodes exceeds the transmission loss parameters (link loss specific). Additional optical amplifiers may be required per location with certain circuit configurations. Optical amplifiers may be located at a Customer Premises Node, a Central Office Node, or at a serving wire center.

6. Regenerator

Provides for re-timing, re-shaping and regeneration of the signal level for up to 2.5 Gbps service (on a per shelf basis), or 10 Gbps Ethernet service (on a per circuit, per each location the circuit is regenerated basis), if degradation exceeds the dispersion and/or Optical Amplifier noise limits.

7. Bulk Power

Provides for customer premises node power which will be required if the customer's power source is AC. Applies once per each four shelves, with the first shelf and fifth subsequent shelf at each applicable Customer Premises Node.

8. Port

Provides for the channel interface at any node location for each unprotected or protected channel. Applies per port/per circuit terminating location.

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges**

1. Nonrecurring Charges

	<u>USOC</u>	<u>Nonrecurring Charge</u>
Administrative Charge		
- per service order	ORCMX	ICB
Design and Central Office Connection Charge		
- per circuit	NRBCL	ICB
Customer Connection Charge		
Service Establishment		
- per node	NRBBL	ICB
Subsequent Installation		
- per subsequent shelf	NHCNL	ICB

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MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges (cont'd)**

2. Recurring Rates

<u>MON Ring Transport System</u>	<u>USOC</u>	<u>Monthly Rate</u>
Customer Premises Node (includes first shelf)	F2ND1	ICB
- per subsequent shelf	F2NDS	ICB
Central Office Node (includes first shelf)	F2NC1	ICB
- per subsequent shelf	F2NCS	ICB
Channel Mileage		
- per V&H mile or fraction thereof	1L5XX	ICB
Optical Amplifier (as required)		
- C band (per location)	67QXX	ICB
- L band (per location) ^{/2/}	67QSX	ICB
Regenerator (as required)		
- up to 2.5 Gbps (per shelf)	V8RXX	ICB
- up to 10 Gbps (per circuit, per each location)	V8R2C	ICB
Bulk Power (as required)		
- per first shelf (shelves 1-4)	CBVDX	ICB
- per subsequent shelf (shelves 5-8)	CBVDS	ICB

/1/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

/2/ Available where facilities and equipment permit.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges (cont'd)****2. Recurring Rates (cont'd)**

<u>MON Ring Channels</u>	<u>USOC</u>	<u>Monthly Rate</u>
Ports		
- per port/per circuit terminating location		
ETR/CLO TM		
- unprotected channel	POYKW	ICB
FICON TM (1.0625 Gbps)		
- unprotected channel	POYMW	ICB
- protected channel	POYMP	ICB
FICON TM (2.125 Gbps)		
- unprotected channel	POYWW	ICB
- protected channel	POYWP	ICB
ISC-1 TM		
- unprotected channel	POYJW	ICB
- protected channel	POY9P	ICB
ISC-3 TM		
- unprotected channel	POY9W	ICB
- protected channel	POY9P	ICB
Fibre Channel (1.0625 Gbps)		
- unprotected channel	POYNW	ICB
- protected channel	POYNP	ICB
Fibre Channel (2.125 Gbps)		
- unprotected channel	POYYW	ICB
- protected channel	POYYP	ICB
Gigabit Ethernet		
- unprotected channel	POYLW	ICB
- protected channel	POYLP	ICB
10 Gigabit Ethernet (WAN PHY)		
- unprotected channel	POYTW	ICB
- protected channel	POYTP	ICB
10 Gigabit Ethernet (LAN-PHY)		
- unprotected channel	POYUW	ICB
- protected channel	POYUP	ICB

/1/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges (cont'd)**

2. Recurring Rates (cont'd)

<u>MON Ring Channels</u>	<u>USOC</u>	<u>Monthly Rate</u>
Ports (cont'd)		
- per port/per circuit terminating location		
SONET OC-12/OC-12c		
- unprotected channel	POYFW	ICB
- protected channel	POYFP	ICB
SONET OC-48/OC-48c ^{/2/}		
- unprotected channel	POYGW	ICB
- protected channel	POYGP	ICB
SONET OC-192/OC-192c		
- unprotected channel	POYOW	ICB
- protected channel	POYOP	ICB
GigE/FC/FICON TM Sub-Rate System		
- unprotected channel	POY1W	ICB
- protected channel	POY1P	ICB
GigE Riding Circuit ^{/3/}		
- unprotected channel	POY4W	ICB
- protected channel	POY4P	ICB
Fibre Channel Riding Circuit ^{/3/}		
- unprotected channel	POY6W	ICB
- protected channel	POY6P	ICB
FICON TM Riding Circuit ^{/3/}		
- unprotected channel	POY7W	ICB
- protected channel	POY7P	ICB

/1/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

/2/ Available where facilities and equipment permit.

/3/ Available only when ordered with GigE/FC/FICONTM Sub-Rate System.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges (cont'd)****2. Recurring Rates (cont'd)**

<u>MON Ring Channels</u>	<u>USOC</u>	<u>Monthly Rate</u>
Ports (cont'd)		
- per port/per circuit terminating location		
ESCON ^{TM/2/}		
- unprotected channel	PWY1W	ICB
- protected channel	PWY1P	ICB
Fast Ethernet ^{/2/}		
- unprotected channel	PWY2W	ICB
- protected channel	PWY2P	ICB
D1 Video ^{/2/}		
- unprotected channel	PWY3W	ICB
- protected channel	PWY3P	ICB
DVB-ASI Video ^{/2/}		
- unprotected channel	POY8W	ICB
- protected channel	POY8P	ICB
SONET OC-3/OC-3c ^{/2/}		
- unprotected channel	PWY4W	ICB
- protected channel	PWY4P	ICB
OC-48 Sub-Rate System ^{/2/}		
- unprotected channel	POYRW	ICB
- protected channel	POYRP	ICB
OC-48/OC-48c Riding Circuit ^{/2,3/}		
- unprotected channel	POYZW	ICB
- protected channel	POYZP	ICB

/1/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

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

/3/ Available only when ordered with OC-48 Sub-Rate System beginning November 30, 2005.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/5/} (cont'd)**G. Rates and Charges (cont'd)**

2. Recurring Rates (cont'd)

<u>MON Ring Channels</u>	<u>USOC</u>	<u>Monthly Rate</u>
Sub-Rate System ^{/1/}		
- unprotected channel	POYSW	ICB
- protected channel	POYPW	ICB
ESCON TM Riding Circuit ^{/1,2,3/}		
- unprotected channel	POYHW	ICB
- protected channel	POYHP	ICB
Fast Ethernet Riding Circuit ^{/1,2/}		
- unprotected channel	POYCW	ICB
- protected channel	POYCP	ICB
D1 Video Riding Circuit ^{/1,2/}		
- unprotected channel	POYVW	ICB
- protected channel	POYVP	ICB
DVB-ASI Video Riding Circuit ^{/1,2/}		
- unprotected channel	POY5W	ICB
- protected channel	POY5P	ICB
SONET OC-3/OC-3c Riding Circuit ^{/1,2,4/}		
- unprotected channel	POYEW	ICB
- protected channel	POYEP	ICB

/1/ Available where facilities and equipment permit.

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

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

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

/5/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

MULTI-SERVICE OPTICAL NETWORK RING (MON RING) SERVICE^{/1/} (cont'd)**G. Rates and Charges (cont'd)****2. Recurring Rates (cont'd)**

<u>MON Ring Channels</u>	<u>USOC</u>	<u>Monthly Rate</u>
Ports (cont'd)		
- per port/per circuit terminating location		
ESCON TM Sub-Rate System ^{/2/}		
- unprotected channel	POY2W	ICB
- protected channel	POY2P	ICB
OC-3/OC-12 Sub-Rate System ^{/2/}		
- unprotected channel	POY3W	ICB
- protected channel	POY3P	ICB
OC-12/OC-12c Riding Circuit ^{/2,3/}		
- unprotected channel	POY5W	ICB
- protected channel	POY5P	ICB

/1/ Effective December 1, 2012, Multi-Service Optical (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 existing TPP's 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.

/2/ Available only where facilities and equipment permit.

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

METALLIC SERVICE^{/1/}

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
1. Channel Termination	\$18.15	\$118.00	\$82.00
2. Channel Mileage			
		<u>Monthly Rates</u>	
		<u>Fixed</u>	<u>Per Mile</u>
<u>Mileage Bands</u>			
0		None	None
Over 0 to 4		\$23.20	\$7.60
Over 4 to 8		23.20	7.60
Over 8 to 25		23.20	7.60
Over 25 to 50		222.80	6.35
Over 50		222.80	6.35
3. Optional Features and Functions			
		<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
Bridging			
Three Premises Bridging		\$5.35	None
Series Bridging		5.35	None

/1/ Obsolete - applicable to existing systems.

TELEGRAPH GRADE SERVICE^{/1/}

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
1. Channel Termination			
Two-Wire	\$34.60	\$193.00	\$144.00
Four-Wire	39.35	193.00	144.00
2. Channel Mileage			
		<u>Monthly Rates</u>	
		<u>Fixed</u>	<u>Per Mile</u>
<u>Mileage Bands</u>			
0		None	None
Over 0 to 4		\$8.20	\$6.20
Over 4 to 8		8.20	6.20
Over 8 to 25		8.20	6.20
Over 25 to 50		132.00	5.60
Over 50		132.00	5.60
3. Optional Features and Functions			
		<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
Telegraph Bridging			
Two-Wire		\$5.72	None
Four-Wire		6.90	None

^{/1/} Obsolete - applicable to existing systems.

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VOICE GRADE SERVICE^{/1/}

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
<i>Optional Features and Functions</i>		
Voice Bridging		
Two-Wire	\$9.35	None
Four-Wire	9.35	None
Data Bridging		
Two-Wire	9.35	None
Four-Wire	9.35	None
Telephoto Bridging		
Two-Wire	4.44	None
Four-Wire	5.66	None
		(D)
		(D)
Split Band	0.92	None
Summation	2.59	None
Passive Bridging, Channel Connections	1.04	None
Conditioning		
C-Type	10.35	None
C-Conditioning	0.25	None
Sealing Current	None	None
Improved Attenuation Distortion (IAD)		
- per point of termination	0.25	None
Improved Termination		
Two-Wire	2.95	None
Multiplexing		
Voice to Telegraph Grade (43 Type Carrier)	48.55	None

/1/ Obsolete - applicable to existing systems.

VOICE GRADE SERVICE^{/1/} (cont'd)

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
<i>Optional Features and Functions (cont'd)</i>		
Data Capability	\$8.95	\$33.20
Telephoto Capability	30.07	230.24
Signaling Capability	6.00	37.00
Selective Signaling Arrangement	8.73	None
Improved Termination	3.32	None
Transfer Arrangement (key activated)		
- Per four port arrangement including control channel termination	24.02	None
- Per five port arrangement including control channel termination	23.94	None
Improved Envelope Delay Distortion (IEDD)	40.00	None
Improved Echo Level, Echo Path Loss	None	None

/1/ Obsolete - applicable to existing systems.

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MEGALINK® DATA SERVICE^{/1/}

	Monthly Rates	Nonrecurring Charges	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
1. Channel Termination			
2.4 kbps	\$65.00	\$314.00	\$242.00
4.8 kbps	70.00	310.00	232.00
9.6 kbps	80.00	311.00	237.00
19.2 kbps	75.00	268.00	205.00
56.0 kbps	175.00	344.00	268.00
64.0 kbps	95.00	320.00	246.00
		Monthly Rates	
		<u>Fixed</u>	<u>Per Mile</u>
2. Channel Mileage			
2.4 kbps			
<i>Mileage Bands</i>			
0		None	None
Over 0 to 4		\$40.00	\$1.75
Over 4 to 8		40.00	1.75
Over 8 to 25		40.00	1.75
Over 25 to 50		40.00	1.75
Over 50		40.00	1.75
4.8 kbps			
<i>Mileage Bands</i>			
0		None	None
Over 0 to 4		45.00	2.25
Over 4 to 8		45.00	2.25
Over 8 to 25		45.00	2.25
Over 25 to 50		45.00	2.25
Over 50		45.00	2.25
9.6 kbps			
<i>Mileage Bands</i>			
0		None	None
Over 0 to 4		50.00	2.75
Over 4 to 8		50.00	2.75
Over 8 to 25		50.00	2.75
Over 25 to 50		50.00	2.75
Over 50		50.00	2.75
19.2 kbps			
<i>Mileage Bands</i>			
0		0.00	0.00
Over 0		69.00	0.85

/1/ Obsolete - applicable to existing systems.

MEGALINK® DATA SERVICE^{/1/} (cont'd)

		Monthly Rates	
		<u>Fixed</u>	<u>Per Mile</u>
2.	Channel Mileage (cont'd)		
	56.0 kbps		
	<i>Mileage Bands</i>		
	0	None	None
	Over 0 to 4	\$55.00	\$3.00
	Over 4 to 8	55.00	3.00
	Over 8 to 25	55.00	3.00
	Over 25 to 50	55.00	3.00
	Over 50	55.00	3.00
	64.0 kbps		
	<i>Mileage Bands</i>		
	0	0.00	0.00
	Over 0	70.22	0.91
		<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
			<u>1st Ckt.</u> <u>Addl Ckt.</u>
3.	Service to Service Through Connect Arrangement	\$7.55	\$99.00 \$89.00
4.	Optional Features and Functions		<u>Nonrecurring Charges</u>
	Bridging	\$9.45	None
	Loop Transfer Arrangement (Key activated)	8.50	None
	Secondary Channel Capability	11.64	\$101.00

/1/ Obsolete - applicable to existing systems.

HIGH CAPACITY SERVICE^{/1/}

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
1. Channel Termination			
1.544 Mbps			
First ¼ mile or fraction thereof, per channel	\$60.00	\$633.00	\$392.00
Each additional ¼ mile or fraction thereof, Per channel	22.00	<u>Nonrecurring Charges</u> 0.00	
		<u>Monthly Rates</u>	
		<u>Fixed</u>	<u>Per Mile</u>
2. Channel Mileage			
64 kbps			
<i>Mileage Bands</i>			
Over 0 to 4		\$7.55	\$2.46
Over 4 to 8		7.95	2.36
Over 8 to 25		7.95	2.36
Over 25 to 50		9.89	2.28
Over 50		12.64	2.24
1.544 Mbps			
<i>Mileage Bands</i>			
0		None	None
Over 0 to 4		\$176.00	\$29.00
Over 4 to 8		176.00	29.00
Over 8 to 25		176.00	29.00
Over 25 to 50		240.00	26.00
Over 50		240.00	26.00
	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
3. Service to Service Through Connect Arrangement			
High Capacity Service Arrangement			
1.544 Mbps (DS1)	None	\$197.00	\$152.00
44.736 Mbps (DS3)	None	212.00	212.00
Multiplexed Service Arrangement			
1.544 Mbps (DS1)	None	329.00	280.00

/1/ Obsolete - applicable to existing systems.

HIGH CAPACITY SERVICE^{/1/} (cont'd)

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
4. Optional Features and Functions		
Multiplexing		
DS1 to Voice	\$199.76	None
DS1 to DS0	598.68	None
DS0 to Subrates		
Up to 20 2.4 kbps services	140.90	None
Up to 10 4.8 kbps services	291.20	None
Up to 5 9.6 kbps services	556.29	None
Automatic Loop Transfer	736.06	None
Transfer Arrangement	182.36	None
Clear Channel Capability	30.00	\$144.00
Extended Superframe Format	None	None
Power Over the Interface	None	None
SecureNet®		
Serving Wire Center and Facility Redundancy (per channel termination)	0.00	0.00

/1/ Obsolete - applicable to existing systems.

DOVLINK^{SM/1/}

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>	
		<u>1st Ckt.</u>	<u>Addl Ckt.</u>
Channel Termination			
2.4 kbps	\$16.00	\$175.00	\$112.00
4.8 kbps	16.00	175.00	112.00
9.6 kbps	32.00	175.00	112.00
Channel Mileage			
2.4 kbps	Rates are as set forth in Part 15, Section 2		
4.8 kbps			
9.6 kbps			
Bridging			
2.4 kbps	Rates are as set forth in Part 15, Section 2		
4.8 kbps			
9.6 kbps			

/1/ Obsolete – applicable to existing systems.

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NETWORK RECONFIGURATION SERVICE^{/1,2/}**(C)**

	<u>Monthly Rates</u>	<u>Nonrecurring Charges</u>
Service Establishment		
- per Database Setup	None	\$1,722.00
Database Modification,		
- per request	None	80.00
Port Charges		
(Per Port Termination)		
- Subtending Channel Port	\$11.03	20.00
- 1.544 Mbps Port	45.14	43.00
- 45 Mbps Port	490.05	32.00
Reconfiguration Charges		
Per cross connect and/or disconnect successfully completed per request		
- Individual reservation or demand requests performed by Customer, or each segment of a model request performed by Customer or Company	None	1.25
- Individual reservation or demand requests performed by the Company at the Customer's request	None	8.00

/1/ Obsolete - applicable to existing systems. Rates effective for subscribers in service prior to January 3, 2000.

/2/ Effective October 30, 2018, Network Reconfiguration Service (NRS) will no longer be available for purchase by new or existing customers. See Part 20, Section 15, Sheet 69.

(C)
(C)
(N)
(N)

ADMINISTRATIVE CHARGES^{/1/}

	Nonrecurring Charges	
	<u>1st Ckt.</u>	<u>Addl Ckt.</u>
1. Service Rearrangement Charge		
Per Circuit on the same Access Order for one or any combination of the following changes:		
- Billing Account Number (BAN)	\$9.00	\$5.00
- Customer Circuit ID (CKR)		
2. Service Facility Move		
Analog/MegaLink® Data to 1.544 Mbps High Capacity		
- per service	134.00	100.00
1.544 Mbps High Capacity to 1.544 Mbps High Capacity		
- per service	211.00	177.00
1.544 Mbps High Capacity to MegaLink Custom		
- per service	211.00	177.00

/1/ Obsolete - applicable to existing systems.

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. General Description

/1/

GigaMAN (Gigabit Metro Area Network) Service is an intraLATA dedicated high capacity service limited to the transport of data signals between customer stations. GigaMAN provides for the transmission of data at a discrete bit rate of 1 Gigabit per second (Gbps) in Ethernet format (Ethernet IEEE 802.3). GigaMAN is available in a point-to-point (node-to-node) configuration.

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. Regulations

In addition to the regulations contained in this guidebook, the following regulations apply to GigaMAN.

1. This service is only available to customers in those LATAs served by and within the service territories of the Company.
2. The services provided for GigaMAN are primarily designed to meet the private line communications requirements of business customers, i.e., non-interexchange carriers.
3. Allowance for Interruption

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 guidebook 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 guidebook 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 1.

GIGAMAN® SERVICE (cont'd)

/1/

B. Regulations (cont'd)

4. Protection Options

A Service Level Agreement (SLA) is offered with fully-protected GigaMAN Service, which provides the customer with a performance commitment that includes a service credit if the service does not perform as described. An SLA of 99.999% Service Availability performance is offered on a GigaMAN circuit with Protection (defined as Equipment Plus Fiber Path Protection for every segment of the circuit). Service Availability will be determined using unavailable seconds as defined in ANSI T1.503-2002 (see *Technical Specification Packages* following).

- SLAs are applicable to customers who purchase Equipment Plus Fiber Path Protection with Alternate Wire Center Path Protection or Equipment Plus Fiber Path Protection with Local Channel Path Protection on both ends of a circuit (both local channels), as well as Inter-Wire Center Path Protection, when applicable.
- If this SLA is not met, or if there is any single event of unavailability of service of 10 seconds or more, the customer will be entitled to a credit equal to 100% of the monthly rate for the circuit. Only one such credit in a billing period will apply.
- In order to qualify for this credit, the event causing the unavailability must be determined by the Company to be in its network and the failure occurred in that part of the service with Protection.
- SLA adjustments are not available in the event of a cable cut in any unprotected portion of the GigaMAN Service fiber path or due to customer-requested modifications to the service that may require down time. Routine maintenance is not counted against unavailability.
- The customer is responsible for notifying the Company when the service parameter within the calendar month falls below the committed level.
- The customer must request a service credit within 25 calendar days after the unavailability event occurred.

/1/

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

GIGAMAN® SERVICE (cont'd)

/1/

C. Provision of Service

1. The customer provided equipment (CPE) must deliver the data signals for GigaMAN transport within the industry specification for the subscribed data service. Interface specifications are as specified in the *Technical Specifications Packages* listed in Paragraph E.
2. GigaMAN provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals 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 Gigabit per second (Gbps). The service is considered interrupted when the customer reports to the Company and the Company confirms that continuity has been lost.
4. The provision of GigaMAN Service is subject to the availability and operational limitations of the equipment and associated facilities. In the event that suitable facilities are not available, or modifications to existing facilities are required, Special Construction charges may be applicable as set forth in Part 15, Section 1.
5. 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).
6. 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.
7. If Protection Options are added to an existing GigaMAN circuit that was installed after December 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.
8. Interoffice Channel Mileage charges are applicable on both paths of the GigaMAN Service when any of the Protection Options are ordered.

D. Channel Types

- 1 Gbps GigaMAN channel: an intraLATA dedicated high capacity channel, limited to the transport of data signals between customer stations. GigaMAN provides for the transmission of data at a discrete bit rate of 1 Gbps in Ethernet format (Ethernet IEEE 802.3z).

/1/

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

GIGAMAN® SERVICE (cont'd)

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E. Technical Specifications Packages

Technical specifications for GigaMAN Service are described in the following technical references:

Ethernet Standards for the Local Exchange Companies	SBC-TP-76412-000
Network Performance Parameters for Dedicated Digital Service – Definitions and Measurements	ANSI T1.503-2002

The technical specification 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

F. Service Components

There are five basic rate elements, which may apply to GigaMAN Service:

- Local Distribution Channel
- Interoffice Channel Mileage
- Repeater
- Diversity Options
- Protection Options

1. Local Distribution Channel (LDC)

The local distribution channel is the channel between a customer's premises and the Company serving wire center that normally provides service to that customer's premises.

2. Interoffice Channel Mileage (ICM)

Interoffice channel mileage is defined as the component of the service between two Company serving wire centers. The serving wire centers may be located in the same exchange area, as in a multi-office metropolitan exchange, or may be located in different exchange areas.

Interoffice channel mileage charges include a fixed charge, and a per mile charge, which is based on the vertical and horizontal (V-H) distance between serving wire centers, or between exchanges, measured in whole miles. Fractional miles are rounded to the next whole mile.

V-H coordinates for serving wire centers can be found in the National Exchange Carrier Association, Inc. (NECA) Wire Center Information Tariff.

3. Repeater (RPTR)

A repeater (circuit regenerator) may be used to extend the transmission of GigaMAN signals (service) when necessary. In addition, the first repeater in any multi-repeater circuit will be used for service alarming and monitoring purposes.

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

GIGAMAN® SERVICE (cont'd)

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F. Service Components (cont'd)

4. Diversity Options

Route diversity 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. Diversity Options are only available to customers with service installed after December 19, 2003. Route diversity options are described in detail below under *Service Configurations*.

5. Protection Options

Protection Options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. Protection Options are only available to customers with service installed after December 19, 2003. In addition to charges for the various Protection Options, normal charges for the Local Distribution Channel and Interoffice 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).

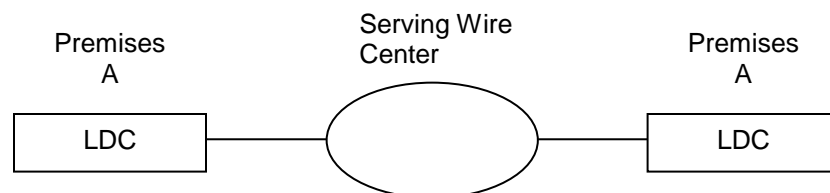
G. Service Configurations

All basic service configurations provide full duplex transmission. There is one basic type of GigaMAN Service configuration: Node-to-Node Service. GigaMAN services from a customer data hub location to multiple points, or multiple GigaMAN services between two customers' data hub locations are merely aggregated node-to-node services.

1. Node-to-Node

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

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



LDC – Local Distribution Channel

In this case, the applicable rate element is:

- Local Distribution Channel (two applicable)

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

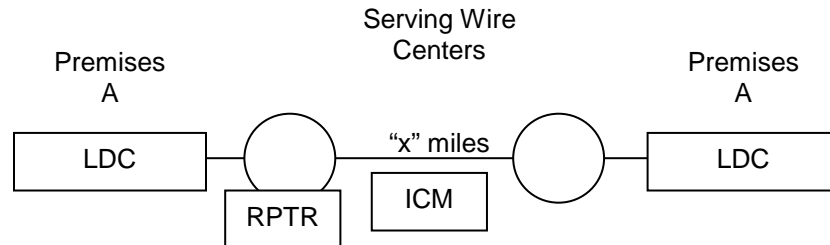
GIGAMAN® SERVICE (cont'd)

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G. Service Configurations (cont'd)

1. Node-to-Node (cont'd)

- b. The following diagram depicts a node-to-node (inter-wire center) configuration connecting two customer-designated premises with Serving Wire Centers located "x" miles apart.



LDC – Local Distribution Channel
ICM – Interoffice Channel Mileage
RPTR - Repeater (where required)

In this case, applicable rate elements are:

- Local Distribution Channel (two applicable)
- Interoffice Channel Mileage Fixed (one applicable)
- Interoffice Channel Mileage Per Mile ("x" applicable)
- Repeater (where required)

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 6.

GIGAMAN® SERVICE (cont'd)

/1/

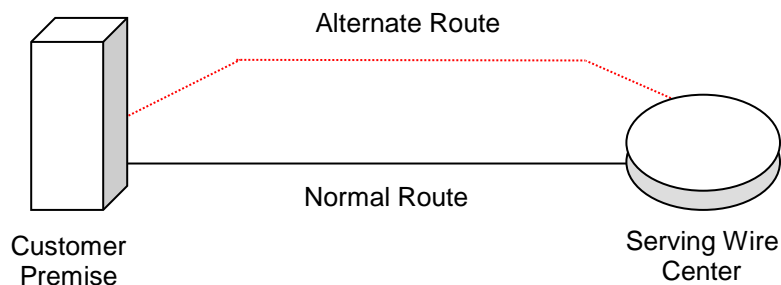
G. Service Configurations (cont'd)**2. Diversity Options**

Route diversity options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply.

GigaMAN offers three diversity options:

a. Local Channel Diversity (LCD)

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 local distribution channels will be provisioned over the standard route and one or more local distribution channels will be provisioned over the 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.



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/1/ Material formerly appeared in Part 15, Section 4, Sheet 7.

GIGAMAN® SERVICE (cont'd)

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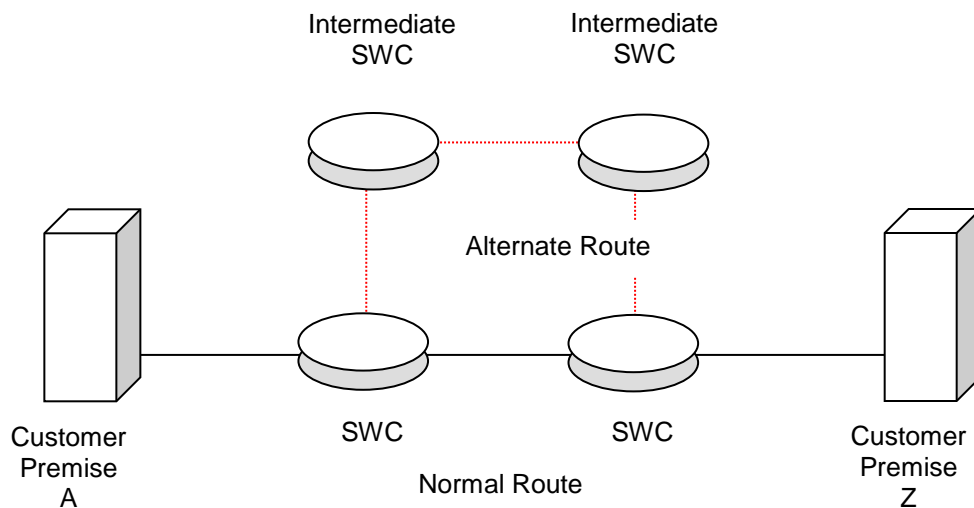
G. Service Configurations (cont'd)

2. Diversity Options (cont'd)

b. Inter-Wire Center Diversity (IWCD)

Inter-Wire Center Diversity arrangements presume that each end of a GigaMAN local distribution channel is served out of a different serving wire center (SWC). This arrangement provides a transmission path for GigaMAN local distribution 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.

In this scenario, the customer may or may not already have a GigaMAN local distribution channel operating over the normal (or standard) inter-office route. 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.



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/1/ Material formerly appeared in Part 15, Section 4, Sheet 8.

GIGAMAN® SERVICE (cont'd)

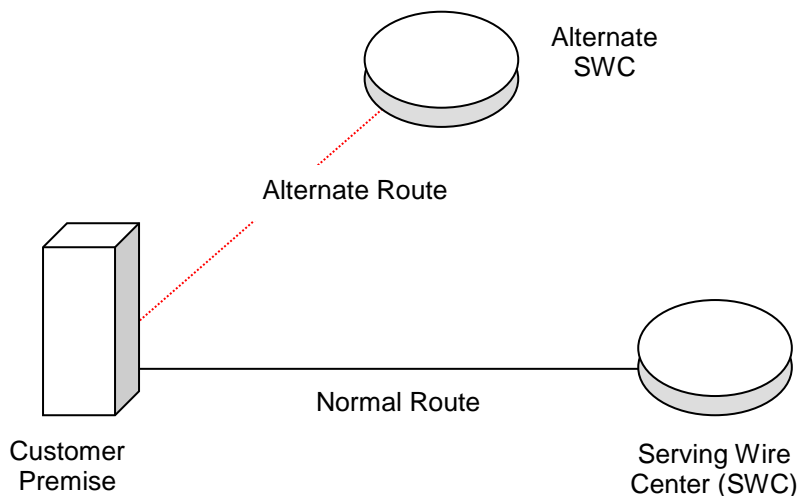
/1/

G. Service Configurations (cont'd)

2. Diversity Options (cont'd)

c. Alternate Wire Center Diversity (AWCD)

Alternate Wire Center Diversity is for the local loop only. It provides a local channel 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 customer's 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 local distribution 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.



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

GIGAMAN® SERVICE (cont'd)

/1/

G. Service Configurations (cont'd)

3. Protection Options

a. Equipment Only Protection (EOP)

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 two 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.

b. 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 (AWCPP)

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.

Local Channel Path Protection (LCPP)

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.

/1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 10.

GIGAMAN® SERVICE (cont'd)

/2/

G. Service Configurations (cont'd)

3. Protection Options (cont'd)

c. Inter-Wire Center Path Protection (IWCPP)^{/1/}

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.

d. Power Protection (PP)

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

/2/

/2/ Material formerly appeared in Part 15, Section 4, Sheet 11.

GIGAMAN® SERVICE (cont'd)

/3/

H. Rates and Charges

1. Nonrecurring Charges are one-time charges that apply for specific work activity related to the provisioning of GigaMAN Service.

Installation Charge^{/1/}

- Per Local Distribution Channel	\$1,500.00
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Protection Options, per terminating end

- Equipment Only	/CPAEX/	625.00
- Equipment Plus Fiber Path Protection, with ...		
Alternate Wire Center Path Protection, or	/CPAFX/	1,400.00
Local Channel Path Protection	/CPAGX/	1,225.00

Per rack or cabinet

- Power Protection	/VBBGX/	475.00
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Per circuit

- Inter-Wire Center Path Protection ^{/2/}	/CPAHX/	625.00
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/1/ The Installation Charge will be waived for those customers selecting the 36 or 60 month Term Pricing Plan (TPP) period for new service.

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

/3/ Material formerly appeared in Part 15, Section 4, Sheet 12.

/3/

GIGAMAN® SERVICE (cont'd)

/3/

H. Rates and Charges (cont'd)

2. Recurring rates are flat recurring rates that apply each month or fraction thereof that the service is provided. Recurring rates may be applied only over a 12-, 24-, 36-, or 60-month period under the terms and conditions of the Term Pricing Plan (TPP), described in Paragraph I. following. Upon completion of a TPP, a customer's service will automatically convert to the Monthly Extension Rates unless the customer requests a new TPP. No customer shall purchase GigaMAN at the Monthly Extension Rate basis prior to the completion of a TPP.

	<u>USOC</u>	<u>Monthly Extension Rate</u>	<u>12 Month</u>	<u>Term Pricing Plan Monthly Contract Rates</u>		
				<u>24 Month</u>	<u>36 Month</u>	<u>60 Month</u>
LDC	3LN5S	\$3,800.00	\$3,300.00	\$3,100.00	\$2,850.00	\$2,500.00
ICM	1DA8X					
Fixed		250.00	250.00	225.00	200.00	100.00
Per Mile		125.00	125.00	115.00	100.00	75.00
RPTR	VU4	2,500.00	2,400.00	1,700.00	1,150.00	850.00
MSR ^{/1/}	M1RGX	2,500.00	2,400.00	N/A	1,150.00	850.00
Diversity						
LCD	CPALX	750.00	750.00	750.00	750.00	750.00
IWCD	CPATX	500.00	500.00	500.00	500.00	500.00
AWCD	CPAAX	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
Protection						
EOP	CPAEX	1,500.00	1,375.00	1,225.00	1,050.00	900.00
EP with						
AWCPP	CPAFX	2,460.00	2,050.00	1,840.00	1,600.00	1,400.00
LCPP	CPAGX	2,190.00	1,825.00	1,650.00	1,425.00	1,225.00
IWCPP ^{/2/}	CPAHX	475.00	375.00	200.00	150.00	100.00
PP	VBBGX	700.00	625.00	525.00	480.00	435.00

/1/ Effective October 24, 2003, service arrangements utilizing a legacy mid-span repeater 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/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit.

/3/ Material formerly appeared in Part 15, Section 4, Sheet 13.

/3/

GIGAMAN® SERVICE (cont'd)

/1/

I. Term Pricing Plan (TPP)

1. The TPP provides for 12-, 24-, 36-, or 60-month rate stabilization. Decreases in term monthly recurring rates will be passed on to customers who participate in a TPP. The Company will notify customers participating in a TPP when term monthly recurring rates are decreased.

Should the Company increase its rates during the TPP period, the customer would continue to pay the rates in effect at the time the customer elected to establish service under the TPP.

2. The customer may choose to terminate an existing TPP before the end of the 12-, 24-, 36-, or 60-month period and negotiate a new 12-, 24-, 36-, or 60-month TPP. The new TPP must be based upon the rates that are currently in effect and available to all customers.
3. The customer must provide the Company with a written notice of intent to renew a TPP no later than 90 days prior to its expiration. If the customer elects not to renew the TPP, or does not notify the Company of the customer's intent to renew the TPP, the service will automatically be billed under the monthly extension rates in effect at the time that TPP expires. Subsequently, customers under the monthly extension rates may convert their existing service to either a 12-, 24-, 36-, or 60-month TPP. Nonrecurring charges will be waived at the time of conversion.
4. Any special construction charges incurred for services billed under a TPP will be applicable as provided for in Part 15, Section 1.
5. If the customer terminates the TPP agreement prior to the expiration of the 12-, 24-, 36-, or 60-month service term, the customer shall pay a termination charge. Payment of the termination charge does not release the customer from other previous amounts owed to the Company. The termination charge shall be:
 - All unpaid Special Construction or nonrecurring charges (excluding any waived charges); plus
 - Fifty percent (50%) of all recurring charges for the remaining months of the customer's term

Effective October 24, 2003, the Company migrated to a new equipment platform in support of GigaMAN Service. As of October 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.

6. For circuits installed prior to December 19, 2003, a customer may move one Local Distribution Channel of a GigaMAN Service during their TPP term to another location in the same LATA and keep the TPP in force (without assessment of Termination Charges), provided no lapse in service occurs. Nonrecurring charges, as appropriate, will apply.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 14.

GIGAMAN® SERVICE (cont'd)

/1/

I. Term Pricing Plan (TPP) (cont'd)

7. For circuits installed after December 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.

8. Customers will be permitted to add Protection Options to existing GigaMAN Service that was installed after December 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.

9. Customers re-negotiating an existing term payment plan contract expiring after December 19, 2003 will be required to migrate to the new equipment platform.

/1/

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

GIGAMAN® SERVICE (cont'd)

/2/

I. Term Pricing Plan (TPP) (cont'd)

10. 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/}

11. 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 greater 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/ Minimum in-service periods required for Upgrades only apply for service installed after July 20, 2007.

/2/ Material formerly appeared in Part 15, Section 4, Sheet 16.

DECAMAN® SERVICE

/1/

Effective September 30, 2017, DecaMAN 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 DecaMAN Service, and existing term plans may not be renewed, converted or extended. Following the expiration of a customer's existing DecaMAN 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. General Description

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DecaMAN Service is an intraLATA, dedicated high capacity service limited to the transport of data signals between customer locations. DecaMAN provides for the transmission of data at a discrete bit rate of 10 Gbps in Ethernet format (10 Gigabit Ethernet IEEE 802.3ae). DecaMAN is available in a point-to-point (node-to-node) configuration. DecaMAN is a fiber-based transport service that enables LAN PHY and WAN PHY connectivity between customer LANs, MANs and WANs within the same LATA.

DecaMAN 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 DecaMAN Service include LAN-to-LAN connectivity, CAD/CAM file transfer, telemedicine and business continuity transport.

The 802.3ae 10 GigE standard defines two OSI Layer 1 Physical ("PHY") specifications:

WAN PHY provides a carrier-grade interface capability at a discrete bit rate of 9.95 Gbps (physical layer rate), allowing customers to transport data signals over a SONET infrastructure.

LAN PHY provides a carrier-grade interface capability at a discrete bit rate of 10.3125 Gbps (physical layer rate), allowing customers to interconnect Ethernet LANs.

DecaMAN is provisioned over dedicated fiber-optic channels, which may include Wave Division Multiplexing in all or part of the network. Each DecaMAN Service provides dedicated bandwidth to the customer. All DecaMAN Services traverse through a Company Central Office gateway that serves to regenerate the DecaMAN signal and provides the Company with in-band monitoring and maintenance capability. Network Terminating Equipment (NTE) may be required on customer premises, at the discretion of the Company based on technical design criteria.

DecaMAN is a registered trademark of AT&T Intellectual Property

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 17.

DECAMAN® SERVICE (cont'd)

/1/

B. Regulations

In addition to the regulations contained in this guidebook, the following regulations apply to DecaMAN:

1. This service is only available to customers in those LATAs served by and within the service territories of the Company.
2. The services provided for DecaMAN are primarily designed to meet the private line communications requirements of business customers, i.e., non-interexchange carriers.
3. Allowance for Interruption

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 guidebook 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:

- 0 to 10 seconds	No credit shall be allowed
- 10 seconds to 4 hours	10% credit of monthly recurring charges
- 4 hours to 12 hours	25% credit of monthly recurring charges
- 12 hours to 24 hours	50% credit of monthly recurring charges
- 24 hours or greater	100% credit of monthly recurring charges

The credit allowance for service interruptions shall not exceed 100% of the applicable monthly rate during any billing period.

The Company's failure to provide or maintain services under this guidebook 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.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 18.

DECAMAN® SERVICE (cont'd)

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B. Regulations (cont'd)**4. Protection Options**

A Service Level Agreement (SLA) is offered with fully-protected DecaMAN Service, which provides the customer with a performance commitment that includes a service credit if the service does not perform as described. An SLA of 99.999% Service Availability performance is offered on a DecaMAN circuit with Protection (defined as Equipment Plus Fiber Path Protection for every segment of the circuit). Service Availability will be determined using unavailable seconds as defined in ANSI T1.503-2002 (see *Technical Specification Packages* following).

- SLAs are applicable to customers who purchase Equipment Plus Fiber Path Protection with Alternate Wire Center Path Protection or Equipment Plus Fiber Path Protection with Local Channel Path Protection on both ends of a circuit (both local channels), as well as Inter-Wire Center Path Protection, when applicable.
- If this SLA is not met, or if there is any single event of unavailability of service of 10 seconds or more, the customer will be entitled to a credit equal to 100% of the monthly rate for the circuit. Only one such credit in a billing period will apply.
- In order to qualify for this credit, the event causing the unavailability must be determined by the Company to be in its network and the failure occurred in that part of the service with Protection.
- SLA adjustments are not available in the event of a cable cut in any unprotected portion of the DecaMAN Service fiber path or due to customer-requested modifications to the service that may require down time. Routine maintenance is not counted against unavailability.
- The customer is responsible for notifying the Company when the service parameter within the calendar month falls below the committed level.
- The customer must request a service credit within 25 calendar days after the end of the month when the unavailability event occurred.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 19.

DECAMAN® SERVICE (cont'd)

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C. Provision of Service

1. The customer provided equipment (CPE) must deliver the data signals for DecaMAN transport within the industry specification for the subscribed data service. See *Technical Specifications Packages* following.
2. DecaMAN provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals 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. DecaMAN is designed to provide connectivity at the discrete bit rate of 9.95 Gbps physical layer rate (WAN PHY) or 10.3125 Gbps physical layer rate (LAN PHY). The service is considered interrupted when the customer reports to the Company and the Company confirms that continuity has been lost.
4. The provision of DecaMAN Service is subject to the availability and operational limitations of the equipment and associated facilities. In the event that suitable facilities are not available, or modifications to existing facilities are required, Special Construction charges may be applicable as set forth in Part 15, Section 1.
5. DecaMAN Service can be distance-limited, based on circuit configuration and signal loss parameters, as determined by the Company. One repeater (signal regenerator) is included in all DecaMAN Service designs. Additional repeaters may be used to extend the transmission of DecaMAN Service, where technically feasible. See Repeater under *Service Components* and *Rates and Charges* following for further definition and charge application.
6. DecaMAN Service is not available in a meet-point billing arrangement involving other Carriers.
7. Interoffice Channel Mileage charges are applicable on both paths of the DecaMAN Service when any of the Diversity or Protection Options are ordered.
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).
9. Additional repeaters (circuit regenerators) may be required on the diverse or alternately routed path when Diversity or Protection options are ordered by the customer. The need for repeaters on the diverse or protected path will be determined by the Company. Additional charges will apply.
10. Diversity and Protection Options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. In addition to charges for the various Diversity and Protection Options, normal charges for the Local Distribution Channel and Interoffice Channel Mileage will apply.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 20.

DECAMAN® SERVICE (cont'd)

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C. Provision of Service (cont'd)

11. If Protection Options are later added to an existing DecaMAN circuit, 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 premises to premises. Other Special Construction charges, as necessary, may apply.

D. Technical Specifications Packages

DecaMAN standards are defined in IEEE Std 802.3ae™-2002 (Amendment to IEEE Std 802.3-2002): Media Access Control (MAC) Parameters, Physical Layers, and Management Parameters for 10 Gbps Operation.

The customer interface to DecaMAN Service is as specified in:

<u>Subject</u>	<u>Technical Reference</u>
SBC Customer Interface Standards for 100 Mbps and Higher	SBC-TP-76412
Ethernet suite standards for D5 10GBASE-LR and D5 10GBASE-LW	IEEE 802.3ae
Network Performance Parameters for Dedicated Digital Services – Definitions and Measurements	ANSI T1.503-2002

The SBC publication 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

The IEEE publication can be obtained from:

<http://standards.ieee.org/catalog/olis/lanman.html>

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 21.

DECAMAN® SERVICE (cont'd)

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E. Service Components**1. Standard Service Components**Local Distribution Channel (LDC)

The local distribution channel is the channel between a customer's premises and the Company serving wire center that normally provides service to that customer's premises.

Interoffice Channel Mileage (ICM)

Interoffice channel mileage is defined as the component of the service between two Company serving wire centers. The serving wire centers may be located in the same exchange area, as in a multi-office metropolitan exchange, or may be located in different exchange areas.

Interoffice channel mileage charges include a fixed charge, and a per mile charge, which is based on the vertical and horizontal (V-H) distance between serving wire centers, or between exchanges, measured in whole miles. Fractional miles are rounded to the next whole mile.

V-H coordinates for serving wire centers can be found in the National Exchange Carrier Association, Inc. (NECA) Wire Center Information Tariff.

Repeater (RPTR)

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

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 22.

DECAMAN® SERVICE (cont'd)

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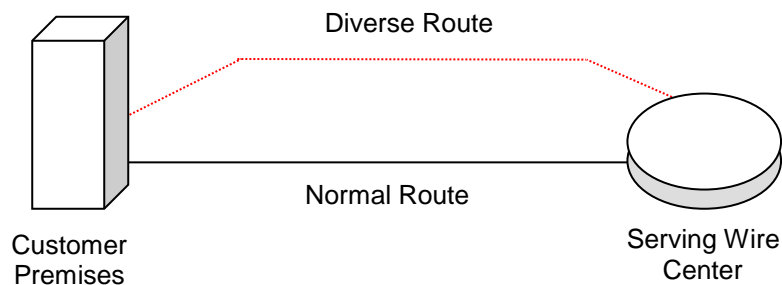
E. Service Components (cont'd)**2. Optional Service Components**Diversity Options

End-to-end diversity can be achieved by coupling Alternate 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.

DecaMAN offers three diversity options: Local Channel Diversity, Alternate Wire Center Diversity and Inter-Wire Center Diversity.

Local Channel Diversity (LCD)

Local Channel Diversity provides for a transmission path between a designated customer premises 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 local distribution channels will be provisioned over the standard route and one or more local distribution 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 premises, at the customer's expense.



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/1/ Material formerly appeared in Part 15, Section 4, Sheet 23.

DECAMAN® SERVICE (cont'd)

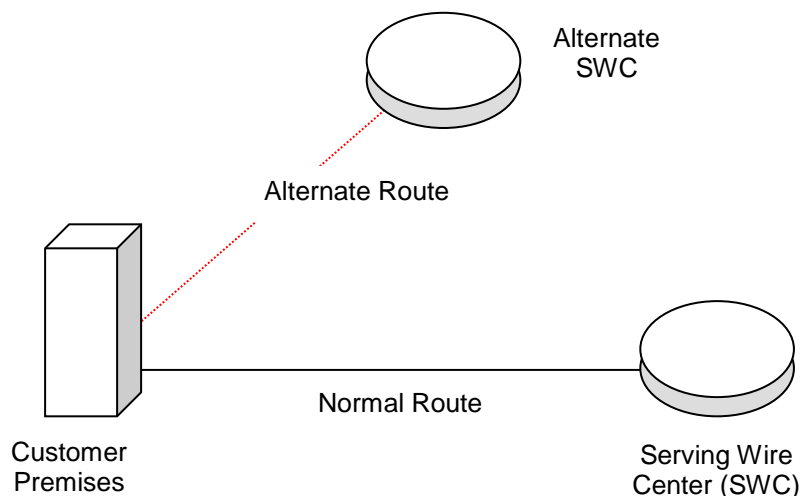
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E. Service Components (cont'd)

2. Optional Service Components (cont'd)

Diversity Options (cont'd)Alternate Wire Center Diversity (AWCD)

Alternate Wire Center Diversity is for the local loop only. It provides a local channel transmission path for DecaMAN 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 customer's designated premises that is capable of providing DecaMAN Service over the alternate route. Alternate Wire Center Diversity does not require the purchase of two DecaMAN Services by (or for the benefit of) the same customer, nor does it require the customer to have an existing DecaMAN circuit operating over the normal (or standard) route to the normal (or standard) serving wire center. With this arrangement, one or more local distribution 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 premises, at the customer's expense.



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/1/ Material formerly appeared in Part 15, Section 4, Sheet 24.

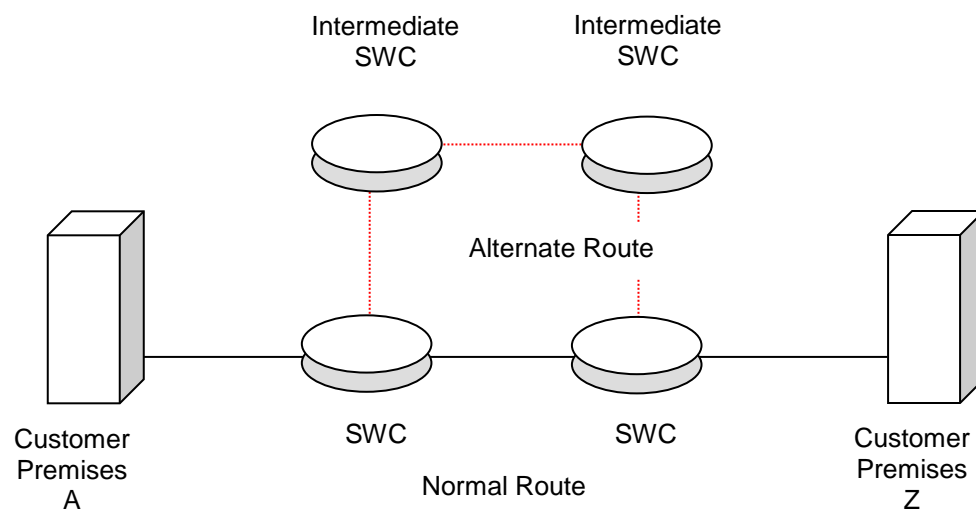
DECAMAN® SERVICE (cont'd)

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E. Service Components (cont'd)**2. Optional Service Components (cont'd)**Diversity Options (cont'd)Inter-Wire Center Diversity (IWCD)

Inter-Wire Center Diversity arrangements presume that each end of a DecaMAN local distribution channel is served out of a different serving wire center (SWC). This arrangement provides a transmission path for DecaMAN local distribution 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 DecaMAN 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 premises, at the customer's expense.



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/1/ Material formerly appeared in Part 15, Section 4, Sheet 25.

DECAMAN® SERVICE (cont'd)

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E. Service Components (cont'd)**2. Optional Service Components (cont'd)**Protection Options

Protection Options provide additional levels of reliability to DecaMAN Service. All Protection Options utilize NTE at the customer's premises. 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 DecaMAN circuit cannot include Protection at only one end (excluding Power Protection which can be at just one end, or both ends, of the circuit).

DecaMAN offers the following protection options: Equipment Only Protection, Equipment Plus Fiber Path Protection with Alternate Wire Center Path Protection, Equipment Plus Fiber Path Protection with Local Channel Path Protection, Inter-Wire Center Path Protection and Power Protection.

Equipment Only Protection (EOP)

Equipment Only Protection offers a network design where one DecaMAN 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 premises in the same device (but into separate and distinct modules). Protection switching will occur between the two 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.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 26.

DECAMAN® SERVICE (cont'd)

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E. Service Components (cont'd)**2. Optional Service Components (cont'd)**Protection Options (cont'd)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 (AWCPP)

One DecaMAN signal will be routed over one fiber pair of the protected circuit from the customer's premises to the normal serving wire center, and a duplicate DecaMAN 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 premises, at the customer's expense.

Local Channel Path Protection (LCPP)

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 premises, at the customer's expense.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 27.

DECAMAN® SERVICE (cont'd)

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E. Service Components (cont'd)**2. Optional Service Components (cont'd)**Protection Options (cont'd)Inter-Wire Center Path Protection (IWCPP)

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. 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.

Power Protection (PP)

Power Protection provides customers with battery back-up for up to eight (8) hours to maintain DecaMAN 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. Request 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 DecaMAN Service will result in a temporary service interruption.

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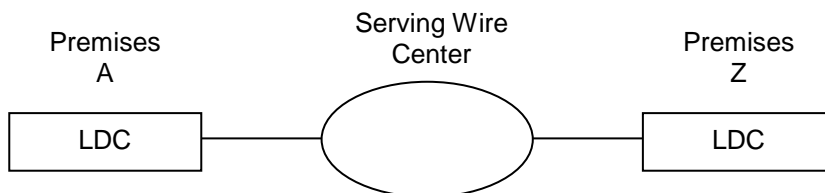
/1/ Material formerly appeared in Part 15, Section 4, Sheet 28.

DECAMAN® SERVICE (cont'd)

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F. Service Configurations

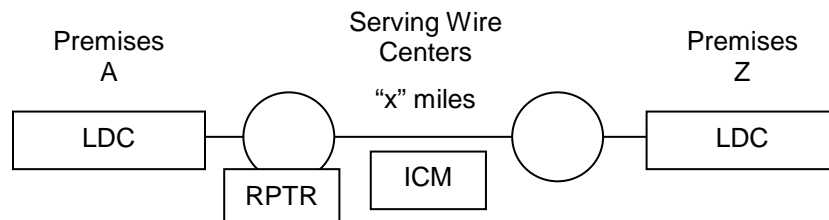
The following diagram depicts a service configuration connecting two customer-designated premises served from the same wire center.

Intra-Wire Center Configuration

Applicable rate elements are:

- Local Distribution Channel (LDC) - two applicable

The following diagram depicts a service configuration connecting two customer-designated premises with serving wire centers located "x" miles apart using a Repeater (where required).

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

Applicable rate elements are:

- Local Distribution Channel (LDC) - two applicable
- Interoffice Channel Mileage (ICM), Fixed - one applicable
- Interoffice Channel Mileage (ICM), Per Mile - "x" applicable
- Repeater (RPTR) - where required

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 29.

DECAMAN® SERVICE (cont'd)

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G. Rates and Charges

<u>Description</u>	<u>/USOC/</u>	<u>Nonrecurring Charge</u>
Installation Charge ^{/1/}		
- per channel		ICB
Diversity Options, Per terminating end		
- Local Channel	/CPALX/	ICB
- Alternate Wire Center	/CPAAX/	ICB
Per circuit		
- Inter-Wire Center	/CPATX/	ICB
Protection Options, Per terminating end		
- Equipment Only	/CPAEX/	ICB
- Equipment Plus Fiber Path Protection, with ...		
Alternate Wire Center Path Protection, or	/CPAFX/	ICB
Local Channel Path Protection	/CPAGX/	ICB
Per rack or cabinet		
- Power Protection	/VBBGX/	ICB
Per circuit		
- Inter-Wire Center Path Protection ^{/2/}	/CPAHX/	ICB

/1/ The Installation Charge will be waived for those customers selecting the 36- or 60-month Term Pricing Plan (TPP) period for new service.

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

/3/ Material formerly appeared in Part 15, Section 4, Sheet 30.

/3/

DECAMAN® SERVICE (cont'd)

/2/

G. Rates and Charges (cont'd)

		Monthly Payment <i>Term Pricing Plans</i>				Monthly Extension Rate
	<u>USOC</u>	<u>12-Month</u>	<u>24-Month</u>	<u>36-Month</u>	<u>60-Month</u>	
LDC						
LAN PHY	1RSTX	ICB	ICB	ICB	ICB	ICB
WAN PHY	1RSTX	ICB	ICB	ICB	ICB	ICB
ICM						
Fixed	JZ68S	ICB	ICB	ICB	ICB	ICB
Per Mile	JZ68S	ICB	ICB	ICB	ICB	ICB
RPTR	VU4	ICB	ICB	ICB	ICB	ICB
Diversity						
LCD	CPALX	ICB	ICB	ICB	ICB	ICB
AWCD	CPAAX	ICB	ICB	ICB	ICB	ICB
IWCD	CPATX	ICB	ICB	ICB	ICB	ICB
Protection						
EOP	CPAEX	ICB	ICB	ICB	ICB	ICB
EP with						
AWCPP	CPAFX	ICB	ICB	ICB	ICB	ICB
LCPP	CPAGX	ICB	ICB	ICB	ICB	ICB
IWCPP ^{/1/}	CPAHX	ICB	ICB	ICB	ICB	ICB
PP	VBBGX	ICB	ICB	ICB	ICB	ICB

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

/2/ Material formerly appeared in Part 15, Section 4, Sheet 31.

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DECAMAN® SERVICE (cont'd)

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H. Term Pricing Plan (TPP)

1. DecaMAN Service is only available under the Term Pricing Plan (TPP) whereby customers must select either a 12-, 24-, 36- or 60-month period. After the selected Term Pricing Plan period is satisfied, the Monthly Extension Price will apply unless a new TPP is selected. No customer shall purchase DecaMAN at the Monthly Extension Rate basis prior to the completion of a TPP.
2. The TPP provides for 12-, 24-, 36- or 60-month rate stabilization. Decreases in term monthly recurring rates will be passed on to customers who participate in a TPP. Should the Company increase its rates during the TPP period, the customer would continue to pay the rates in effect at the time the customer elected to establish service under the TPP.
3. The customer may choose to terminate an existing TPP before the end of the 12-, 24-, 36- or 60-month period and negotiate a new 12-, 24-, 36- or 60-month TPP. The new TPP must be based upon the rates that are currently in effect and available to all customers.
4. The customer must provide the Company with a written notice of intent to renew a TPP no later than 90 days prior to its expiration. If the customer elects not to renew the TPP, or does not notify the Company of the customer's intent to renew the TPP, the service will automatically be billed under the monthly extension rates in effect at the time that TPP expires. Subsequently, customers under the monthly extension rates may convert their existing service to either a 12-, 24-, 36- or 60-month TPP. Nonrecurring charges will be waived at the time of conversion.
5. Any special construction charges incurred for services billed under a TPP will be applicable as provided for in Part 15, Section 1.
6. If the customer terminates the TPP agreement prior to the expiration of the 12-, 24-, 36- or 60-month service term, the customer shall pay a termination charge. Payment of the termination charge does not release the customer from other previous amounts owed to the Company. The termination charge shall be:
 - All unpaid Special Construction or nonrecurring charges (excluding any waived charges); plus
 - Fifty percent (50%) of all recurring charges for the remaining months of the customer's term

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 32.

DECAMAN® SERVICE (cont'd)

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H. Term Pricing Plan (TPP) (cont'd)

7. Customers will be permitted to move one end of a DecaMAN 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 DecaMAN Service at the new location. Termination Charges for the existing location will be waived. Standard nonrecurring charges to install DecaMAN 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 DecaMAN contract.
 - The existing DecaMAN 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 DecaMAN Service with 1-year contracts will not be eligible for this Moves option.

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

8. Customers will be permitted to add Protection Options at a later date to existing DecaMAN Service 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 DecaMAN Service will apply. (The conditions described here do not apply to Power Protection added to an existing DecaMAN 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 DecaMAN contract. (The conditions described here do not apply to Power Protection added to an existing DecaMAN circuit).
 - Addition of Protection Options are contingent on availability of equipment and fiber facilities from premises to premises. Other Special Construction charges, as necessary, may apply.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 33.

DECAMAN® SERVICE (cont'd)

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H. Term Pricing Plan (TPP) (cont'd)

9. Customers will be permitted to convert DecaMAN Service from a WAN PHY to LAN PHY interface, or vice versa, without incurring Termination Charges, given the following conditions are met:
 - The customer must issue a disconnect order for the existing interface and place a new service order for DecaMAN Service using the new interface. Termination Charges for the existing interface will be waived. Standard nonrecurring charges to install DecaMAN Service as a new circuit (using the new interface chosen) 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 DecaMAN contract.
 - Conversions are contingent on availability of equipment, and a determination by the Company that such conversion is technically feasible. Other Special Construction charges, as necessary, may apply.
10. 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 DecaMAN Service to the new service.
 - the customer must issue a disconnect order for the existing DecaMAN 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 DecaMAN Service.
 - the existing DecaMAN 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 DecaMAN Service with 1-year contracts will not be eligible for this Upgrade option.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 34.

DECAMAN® SERVICE (cont'd)

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H. Term Pricing Plan (TPP) (cont'd)**11. Migration to AT&T Dedicated Ethernet**

Customers subscribing to DecaMAN 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 DecaMAN 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 greater than that of the existing service.
- The customer must issue a disconnect order for the replaced DecaMAN 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.

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/1/ Material formerly appeared in Part 15, Section 4, Sheet 35.

NETWORK RECONFIGURATION SERVICE (NRS)

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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.** NRS allows customers direct access to, and control of, their intraLATA MegaLink® Digital, MegaLink 1.5 and DS3 Services and certain analog Private Line services (Type 420, 422, 423, 424, 425 and 435) without going through normal service order procedures. NRS uses a central office cross-connect system for the remote reconfiguration of these channels. The cross-connect devices currently used by the Company are Digital Cross-Connect Systems (DCSSs) which interface only with the DS1 (1.544 Mbps) or DS3 (44.736 Mbps) signal, and cross-connect internally at the DS0 (64 Kbps) level. Customers can reconfigure their dedicated network services from their premises, or they can request the Company to perform the reconfigurations.
- B.** Service arrangements which use the public switched network in any way, (i.e., Foreign Exchange, Foreign Service Office, MicroLink I®, local exchange service) may not be terminated directly to a channel port of the NRS. NRS may be used with indirect terminations so long as the service arrangement does not expand the customer's local calling scope.
- C.** Customers will access NRS by use of a customer-provided terminal on their premises in conjunction with a dedicated line, available through this guidebook, or on a dial-up basis with a local exchange line and seven-digit telephone number.
- D.** NRS is available only at certain Company-designated hub locations where digital cross-connect systems are located. NRS hub designations are found in the National Exchange Carrier Association, Inc.'s Wire Center Information Tariff (NECA Tariff).
- E. NRS Options**
- On-demand
 - Reservation

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The on-demand option will make near real time changes to the network while the reservation option will be executed at a specified time designated by the customer. Both types of reconfigurations are available whether the customer performs the reconfigurations or requests the Company to perform them.

F. NRS Features**1. Routing Feature**

The routing feature allows customers to reroute dedicated circuits to different locations at any DS0, DS1 or DS3 bandwidth.

2. Renaming Feature

The renaming feature allows customers to rename their network locations, circuits and facilities.

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/1/ Material formerly appeared on Part 15, Section 3, Sheet 30.

NETWORK RECONFIGURATION SERVICE (NRS) (cont'd)

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F. NRS Features (cont'd)

3. Special Day Definition Feature

This feature gives customers the capability to specify circuit reconfiguration on special dates, e.g., payday, holidays.

4. Resource Verification Feature

This feature allows customers to verify the resource availability for the reservation period in their reconfiguration request prior to the system's confirmation or denial of the request.

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5. Transaction Log Feature

This feature provides customers a database log that contains every transaction involving reconfigurations of their services.

/2/

6. Multilevel Security Feature

This feature eliminates the outside entry into a customer's circuit network arrangement inventory.

7. Compatibility Table Feature

This feature permits customers to view the allowable Private Line and Digital Link combinations that can be used within their NRS.

8. Path Priority Feature

This feature gives customers the ability to arrange their circuit paths in order of priority when multiple routes exist.

9. Reservation Summary Screen Feature

This feature allows customers to view the status of their reconfiguration reservations.

10. Simple Commands and Screens Features

This feature permits customers to use simple commands on screens with easy to use menus.

11. Macro Command/Network Modeling Feature

This feature gives customers the ability to initiate with one command, multiple two-point cross-connections. Customers can build separate network models, such as daytime models, nighttime models, and disaster recovery models and invoke their activation or change from one to the other.

12. Variable Bandwidth Feature

This feature supports scheduled reconfigurations which allows for the interchangeable use of an internodal facility as either a full DS1 or one or more subtending channels. This feature requires a DS1 internodal facility in the customer's network.

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/1/ Material formerly appeared on Part 15, Section 3, Sheet 30.

/2/ Material formerly appeared on Part 15, Section 3, Sheet 31.

NETWORK RECONFIGURATION SERVICE (NRS) (cont'd)

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G. Technical Specifications

1. Services that are cross-connected by NRS must have identical technical characteristics to ensure compatibility and proper operation, e.g., Data-to-Data, Voice-to-Voice.
2. NRS specifications are set forth in Technical Reference TR-TSY-000366.

H. Rate Regulations

1. This section describes the rate elements applicable to NRS. Rate applications specific to this service are also included.
2. General

There are four basic rate elements which apply to NRS:

- Service establishment
- Database modification
- Port charges
- Reconfiguration charges

3. Rate Element Description

- a. Service establishment

This charge applies per customer database setup. The customer database setup is a grid, built by the Company, that contains all the circuits the customer will be able to control and reconfigure. Security, as well as circuit inventory, is built into the grid, permitting the customer control of its own circuits. Also included is the provisioning of customer training.

- b. Database modification

This charge applies (per customer contact, or request) each time the customer requests a subsequent modification of its database grid. A modification can be an addition or deletion of circuits terminating on the cross-connect system, or a rearrangement of the database grid, e.g., an outside move, the rearrangement of the customer's routing priority, a change in the amount of bandwidth (from channelized data to video application), or a change in application of a DS1 (from all data to all voice).

- c. Port charges

Port charges apply per port termination on the cross-connect system. There are two types of charges:

- Channels port charge - channel ports apply for termination of all eligible services other than MegaLink® 1.5 High Capacity Service and DS3 Service.
- DS1 port charge - MegaLink 1.5 High Capacity Digital Service port termination.
- DS3 port charge - DS3 Service port termination.

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/1/ Material formerly appeared on Part 15, Section 3, Sheet 32.

NETWORK RECONFIGURATION SERVICE (NRS) (cont'd)

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H. Rate Regulations (cont'd)

3. Rate Element Description (cont'd)

d. Reconfiguration charges

A reconfiguration charge applies per cross-connect and/or disconnect successfully completed in a Digital Cross-Connect System (DCS) per request.

There are two types of reconfiguration charges:

- For individual reservation or demand requests performed by the customer, or for each segment of a model request performed by the customer or the Company.
- For individual reservation or demand requests performed by the Company at the customer's direction.

4. Application of Rates

- a. When NRS is used in conjunction with Private Line or MegaLink services, the applicable rate elements per circuit are as set forth in this guidebook. For service between two NRS hub locations, appropriate mileage rate elements will apply based on the customer's desired capacity.
- b. Nonrecurring charges will be applied when existing channels must be reterminated to an NRS port.
- c. One NRS port charge applies per circuit at the NRS hub. In addition, one port charge applies for each end of an interoffice channel between two NRS hubs.

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/1/ Material formerly appeared on Part 15, Section 3, Sheet 33.

NETWORK RECONFIGURATION SERVICE (NRS) (cont'd)

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I. Rates and Charges

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
1. Service Establishment			
- per database setup	FN6DD	None	\$1,690.00
2. Database Modification			
- per request	FN6DC	None	86.00
3. Port Charges - per port			
- Channel port ^{/1/}	PT5	\$12.00	20.00
- DS1 Port ^{/2/}	PT6	39.00	50.00
- DS3 Port ^{/3/}	D3D	395.00	75.00
4. Reconfiguration Charges			
- Per cross-connect and/or disconnect successfully completed per request.			
- Individual reservation or demand requests performed by the customer, or each segment of a model request performed by the customer or the Company		None	\$0.50
- Individual reservation or demand requests performed by the Company at the customer's request		None	11.00

/1/ Not applicable if the customer terminates 20 or more MegaLink® services at a single NRS hub location.

/2/ Not applicable if the customer terminates 25 or more MegaLink 1.5 services within a single LATA.

/3/ Not applicable if the customer terminates 15 or more DS3 services within a single LATA.

/4/ Material formerly appeared on Part 15, Section 3, Sheet 34.

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