1. RESTORATION OF SERVICE PRIORITY[1]

Upon receipt of certification in conformance with Part 64, Subpart D, Appendix A of the Federal Communications Commission's Rules and Regulations which specifies the priority system for restoration of services, the Telephone Company will change the priority designation of a BELL Channel Service. The Business Service Ordering charge applies when the customer requests a change in the restoration priority after the service has been established or after the service has been ordered but prior to start of service. No charge applies when the restoration priority certification is provided with the order to establish the service.

NOTE 1: Restoration of Service Priority will expire on March 10, 1993, or when all services are converted to Telecommunications Service Priority, whichever is sooner.

Material formerly appeared in P.S.C. of W. No. 4 in Section 102 on Page 1, Release 1.0

2. CONTRACTUALLY GUARANTEED BILLING DISCOUNT[/1/] /2/

2.1 General (T)

A BELL Channel Services customer who contractually guarantees one of the following required minimum billing amounts for a period of five or seven years, is eligible for a percent discount of BELL Channel Services monthly billing as shown below.

Description	% Discount Applied To Monthly Billing		
	5 Year Contract	7 Year Contract	
Bell Channel Services Monthly Billing			
$200,000	3.0%	5.0%	
275,000	3.8%	5.8%	
350,000	4.4%	6.6%	
425,000	4.9%	7.3%	
500,000	5.3%	8.0%	(T)

Except for services provided on an individual case basis, and for non-recurring charges, all services currently provided under this part, as well as new services which may be added to the tariff, are eligible for the discounts.

2.2 Guaranteed Billing Amount (T)

The monthly billing for BELL Channel Services must be maintained at the contractual minimum amount, or higher, for the duration of the contract. If the customer's monthly billing increases to a level of eligibility for a higher discount, the contract may be amended at the customer's request for the higher discount, according to the discount matrix shown above, for the remainder of the contract term.

/1/ Effective August 25, 1997, Contractually Guaranteed Billing Discount will no longer be available to new customers. Existing customers may retain Contractually Guaranteed Billing Discount until August 25, 1998.

/2/ Material formerly appeared in Part 15, Section 1, on Original Sheets 34 through 35.

2. CONTRACTUALLY GUARANTEED BILLING DISCOUNT[/1/] (cont'd) (T) /2/

2.2 Guaranteed Billing Amount (cont'd) (T)

If minimum monthly contractual billing levels are not met for four consecutive months, the following will apply: 1.) A lower discount level, based on the reduced monthly billing, will take (T) effect for the remainder of the contract term. 2.) The customer will reimburse the Telephone (T) Company for all discounts received above this reduced discount rate retroactive to the contract start date. 3.) The reimbursement will include 10% interest on the amount due to the (T) Telephone Company. This penalty (items 2 and 3) will not apply if the reduction in billing is caused by the Telephone Company due to price reductions or the discontinuance of services from the tariff.

2.3 Contract Application (T)

Although the discounts are provided to customers by means of a contract, all terms and conditions of this tariff apply. In the event of a difference between the tariff and the contract, terms of the tariff are binding.

In the case of contract expiration, unless a contract is renegotiated three months prior to its expiration date, billing reverts to month-to-month rates.

An amendment may be negotiated to extend the contract for up to 2 years beyond the standard 5 or 7 years at the same discount level.

Existing contracts will not be subject to future tariff changes pertaining to discount amounts, minimum billing requirements or contract terms or length. Other tariff changes, such as rates and conditions of service offering are applicable to existing contracts. If the tariff change affecting the contract is more advantageous to customers, customers may renegotiate the contract.

/1/ Effective August 25, 1997, Contractually Guaranteed Billing Discount will no longer be available to new customers. Existing customers may retain Contractually Guaranteed Billing Discount until August 25, 1998.

/2/ Material formerly appeared in Part 15, Section 1, on Original Sheets 34 through 35.

2. CONTRACTUALLY GUARANTEED BILLING DISCOUNT/1/ (cont'd) (T)/2/

2.3 Contract Application (cont'd) (T)

Contracts can be renegotiated for a higher discount or a longer term. They may not be renegotiated for a shorter contract length or a lesser discount level.

If the customer terminates the contract, for whatever reason, the customer must refund to the Telephone Company all discounts received from the contract plus 10% interest.

/1/ Effective August 25, 1997, Contractually Guaranteed Billing Discount will no longer be available to new customers. Existing customers may retain Contractually Guaranteed Billing Discount until August 25, 1998.

/2/ Material formerly appeared in Part 15, Section 1, on Original Sheets 34 through 35.

3. DEDICATED CUSTOMER NETWORKS /1/

3.1 DESCRIPTION

A Dedicated Customer Network (DCN) is a service offering providing custom designed, customer specific, dedicated telecommunications services for voice, data, and/or video applications.

This tariff is filed under Sec. 196.194, Wis. Stats. Therefore, any contract or amendment to such a contract shall be compensatory as determined under Sec. 196.204 (5) and (6) Wis. Stats. Within 20 days after a contract or an amendment to such a contract has been executed, the Telephone Company shall submit to the Commission written notice of the general nature of the contract and the parties to the contract.

The receipt of notification of any contract or amendment to a contract established under this tariff shall not constitute approval of all terms and provisions therein. The Commission retains jurisdiction to investigate on its own motion or upon complaint any contractual term or provision under which the tariffed service is offered, and to take any necessary action pursuant to such investigation, including issuing orders.

3.2 GENERAL REGULATIONS

A. PROVISION OF SERVICE

Dedicated Customer Network service is provided at the option of the Telephone Company, where facilities and equipment permit. A DCN is an interoffice, intraLATA service, that must consist of a minimum of three separate locations and represent a minimum monthly billing of $15,000 for the DCN service.

B. CANCELLATION OF SERVICE

In the event of a customer initiated cancellation of ordered DCN service before completion, or after installation is completed, but prior to the service being turned over to the customer for his/her use, a charge to recover the Telephone Company's costs incurred, along with costs of removal and other expenses, will apply. /1/

/1/ Material formerly appeared on Original Sheets No. 35 and 36 in Part 15, Section 1.

3. DEDICATED CUSTOMER NETWORKS (cont'd) /1/

3.3 PAYMENT FOR SERVICE

Due to the customer specific nature of a Dedicated Customer Network, rates and charges will be negotiated on an individual customer basis at the time the order is placed with the Telephone Company. The total charges to the customer under contract will always be compensatory to the Telephone Company.

Rates and charges may vary based on the customer's choice of payment options, service period commitment, spare capacity requirements, and maintenance agreements. Payment arrangements for DCN service additions, changes and rearrangements will also be negotiated on an individual customer basis, at the time they are requested.

Various minimum service periods and/or termination liability will also apply and will be incorporated in the payment plan section of the Agreement of Service. /1/

/1/ Material formerly appeared on Original Sheet No. 36 in Part 15, Section 1.

2. DEFINITION OF TERMS

(D)

Additional NUI

Network User Identification codes beyond the standard one that is provided.

Auto Call

Enables a user to automatically establish a virtual call to a pre-determined NTN. The user generates a preprogrammed call setup packet by merely powering up the DTE.

Call Acceptance Packet

Packet sent from terminating NTN in response to call setup packet, indicating terminating NTN is ready to accept data transfer from the originating NTN.

Call Clear Packet

Packet used to terminate a call. This packet may be initiated by either the originating or terminating NTN, or by the network.

Call Origination

The point when network resources are initially allocated to the establishment of a specific switched virtual call.

2. DEFINITION OF TERMS (Cont'd)

Call Redirection

Automatically redirects calls addressed to a primary DTE, to a secondary DTE, when the primary DTE is not in service, busy, or designated for call redirection due to network operator request. Call redirection ends automatically when access to the primary DTE is again possible.

Call Setup Packet

The first packet in each session containing the call request and call answer information. Call setup may consist of negotiated flow control parameters, the NUI code, terminating network address, reverse billing indicator and up to 12 data octets.

Call Termination

The point when network resources allocated to a specific switched virtual call are released for reuse by the network.

Closed User Group (CUG)

A private group of users that limits communications to members within the group. The CUG allows its members to transmit and receive calls, service type permitting, to and from other members within the CUG. The initial membership and its desired options are included in the basic group rate. Available options allowing group members to restrict communication within closed user groups include the following:

- Incoming Calls Barred
- Outgoing Calls Barred
- Incoming Access
- Outgoing Access
- International CUG

(D)

2. DEFINITION OF TERMS (Cont'd)

(D)

Default Throughput Class Assignment

Allows the selection of the default throughput class of 75, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 48000/56000 bps (largest class less than, or equal to, user line speed). This default value applies to all virtual calls and permanent virtual circuits at the DTE/DCE interface which do not perform per-call throughput class negotiation.

. (D)

Direct Call

Enables a user to automatically establish a virtual call to a pre-determined NTN.

Exchange Termination

A PSN network component linking the access line and the port termination.

(D)

2. DEFINITION OF TERMS (Cont'd)

(D)

Incoming Calls Barred

Prohibits incoming virtual calls.

2. DEFINITION OF TERMS (Cont'd)

(D)

Network Terminal Number (NTN)

Numeric character sequence used to identify the originating and terminating locations of each user's DTE.

Network User Identification (NUI) Code

A character string, with structure defined by the Company, used as a log-on ID.

(D)

2. DEFINITION OF TERMS (Cont'd)

Outgoing Calls Barred

Prohibits outgoing virtual calls.

(D)

Permanent Virtual Circuit (PVC)

Establishes a logical channel between two NTNs and remains indefinitely in the data transfer phase.

(D)

Protocol Conversion Kilosegment Charge

A non-tariffed, protocol conversion-specific charge based on kilosegments converted from one protocol to another.

(D)

2. DEFINITION OF TERMS (Cont'd)

(D)

2. DEFINITION OF TERMS (Cont'd)

(D)

Virtual Circuit

A logical connection established as a result of call origination between two NTNs, that exists for a period of time until either DTE initiates the call termination.

(D)

(D)

7. MULTIPLE CHANNEL DISCOUNT[1/] /2/

7.1 General

MULTIPLE CHANNEL DISCOUNT

When five or more 2000 or 3000 series type channels of the same type (e.g., 2001) connect the same customer or user locations over a Telephone Company determined route, a 10% discount of monthly rates applies to those channels over four. /2/

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

/2/ Material formerly appeared in P.S.C. of W. No. 20 in Part 15, Section 2, sheet 22.

7.2. CHANNELS

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2001	WCC	Initial 1/4 mile	IL9X8	$41.85(I)
		Subsequent 1/4 mile	IL9X8	5.40(I)
	LDC	Initial 1/4 mile	1LD27	41.85(I)
		Subsequent 1/4 mile	1LD27	3.35(I)
	IWCC	Initial Mile	1LN2B	29.25(I)
		Subsequent Mile	1LN2B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2002	WCC	Initial 1/4 mile	1L9X9	$54.25(I)
		Subsequent 1/4 mile	1L9X9	10.85(I)
	LDC	Initial 1/4 mile	1LD47	55.00(I)
		Subsequent 1/4 mile	1LD47	6.15(I)
	IWCC	Initial Mile	1LN4B	41.85(I)
		Subsequent Mile	1LN4B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2003	WCC	Initial 1/4 mile	1L9X8	$41.85(I)
		Subsequent 1/4 mile	1L9X8	5.40(I)
	LDC	Initial 1/4 mile	1LD27	41.85(I)
		Subsequent 1/4 mile	1LD27	3.35(I)
	IWCC	Initial Mile	1LN2B	29.25(I)
		Subsequent Mile	1LN2B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2004	WCC	Initial 1/4 mile	1L9X9	$54.25(I)
		Subsequent 1/4 mile	1L9X9	10.85(I)
	LDC	Initial 1/4 mile	1LD47	55.00(I)
		Subsequent 1/4 mile	1LD47	6.15(I)
	IWCC	Initial Mile	1LN4B	41.85(I)
		Subsequent Mile	1LN4B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2005	WCC	Initial 1/4 mile	1L9X8	$45.95(I)
		Subsequent 1/4 mile	1L9X8	5.40(I)
	LDC	Initial 1/4 mile	1LD27	46.50(I)
		Subsequent 1/4 mile	1LD27	3.35(I)
	IWCC	Initial Mile	1LN2B	29.25(I)
		Subsequent Mile	1LN2B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2006	LDC	Initial 1/4 mile	1LDV7	$45.95(I)
		Subsequent 1/4 mile	1LDV7	3.35(I)
	IWCC	Initial Mile	1LNVB	29.25(I)
		Subsequent Mile	1LNVB	3.87(I)

LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2007	LDC	Initial 1/4 mile	1LD27	$38.75(I)
		Subsequent 1/4 mile	1LD27	3.12(I)
	IWCC	Initial Mile	1LN2B	27.10(I)
		Subsequent Mile	1LN2B	3.87(I)
	WCC	Initial 1/4 mile	1L9X8	38.75(I)
		Subsequent 1/4 mile	1L9X8	5.40(I)
2008	LDC	Initial 1/4 mile	1LD27	38.75(I)
		Subsequent 1/4 mile	1LD27	3.12(I)
	IWCC	Initial Mile	1LN2B	27.10(I)
		Subsequent Mile	1LN2B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
2010	LDC	Initial 1/4 mile	1LD47	$62.00(I)
		Subsequent 1/4 mile	1LD47	6.15(I)
	IWCC	Initial Mile	1LN4B	41.85(I)
		Subsequent Mile	1LN4B	3.87(I)

LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3002	WCC	Initial 1/4 mile	1L9X9	$66.95(I)
		Subsequent 1/4 mile	1L9X9	10.85(I)
	LDC	Initial 1/4 mile	1LD47	89.25(I)
		Subsequent 1/4 mile	1LD47	6.15(I)
	IWCC	Initial Mile	1LN4B	36.75(I)
		Subsequent Mile	1LN4B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3003	WCC	Initial 1/4 mile	1L9X8	$36.75(I)
		Subsequent 1/4 mile	1L9X8	5.40(I)
	LDC	Initial 1/4 mile	1LD27	66.95(I)
		Subsequent 1/4 mile	1LD27	3.12(I)
	IWCC	Initial Mile	1LN2B	28.35(I)
		Subsequent Mile	1LN2B	3.87(I)

WCC - Wire Center Channel
LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3040	LDC	Initial 1/4 mile	1LD27	$55.85(I)
		Subsequent 1/4 mile	1LD27	3.12(I)
	IWCC	Initial Mile	1LN2B	27.10(I)
		Subsequent Mile	1LN2B	3.87(I)

LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3041	LDC	Initial 1/4 mile	1LD47	$86.75(I)
		Subsequent 1/4 mile	1LD47	6.15(I)
	IWCC	Initial Mile	1LN4B	31.00(I)
		Subsequent Mile	1LN4B	3.87(I)

LDC - Local Distribution Channel
IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3050[/2/]	LDC	Initial 1/4 mile	1LD27	$18.60
		Subsequent 1/4 mile	1LD27	3.12
	IWCC	Initial Mile	1LN2B	27.10
		Subsequent Mile	1LN2B	3.87

LDC - Local Distribution Channel
IWCC- Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

/2/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. Effective December 31, 2005, these services will be withdrawn and completely discontinued. (C)

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3060	IWCC	Per Mile	1LN9B	$2.74(I)

IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

7.2. CHANNELS (cont'd)

7.2.1 Rates and Charges (cont'd)

7.2.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Discount Channels[/1/]

Channel Type	Channel Element	Billing Increment	USOC	Current Monthly Rate
3061	IWCC	Per Mile	1LNJB	$3.49(I)
3062	IWCC	Per Mile	1LN5B	3.87(I)

IWCC - Inter-Wire Central Channel

/1/ Effective October 1, 2001, Multiple Channel Discount will no longer be available to new customers. Existing customers may retain Multiple Channel Discount until March 1, 2002.

9. CHANNELS /2/

9.1 Rates and Charges

9.1.1 Recurring and Nonrecurring Charges

A. Protective Equipment

Protection Level	Type	Service Performance Objective	USOC[/1/]	Current Monthly Rates	Non-Recurring Charge
	1	A	4KV1A	$40.75	$288.00
		B	4KV1B	22.55	174.00
		C	4KV1C	22.55	174.00
Up to 4KV Ground Potential Rise	2	A	4KV2A	40.80	288.00
		B	4KV2B	22.55	174.00
		C	4KV2C	22.55	174.00
	3	A, B or C	4KV3N	5.90	114.00
	4	A, B or C	4KV4N	5.90	114.00
	Wideband	A, B or C	4KVWN	17.20	114.00
	1	A	9KE1A	54.80	288.00
		B	9KE1B	37.60	174.00
		C	9KE1C	37.60	174.00
Up to 9KV Ground Potential Rise	2	A	9KE2A	117.00	288.00
		B	9KE2B	95.50	174.00
		C	9KE2C	95.50	174.00
	3	A, B or C	9KE3N	11.80	114.00
	4	A, B or C	9KE4N	11.80	114.00
	Wideband	A, B or C	9KEWN	17.20	114.00 /2/

/1/ Effective September 9, 2002, these USOCs for Protective Equipment will no longer be available to new customers.

/2/ Material formerly appeared on Sheet 40 in Part 15, Section 2, of this Tariff.

9. CHANNELS (cont'd) /2/

9.1 Rates and Charges (cont'd)

9.1.1 Recurring and Nonrecurring Charges (cont'd)

A. Protective Equipment (cont'd)

Protection Level	Type	Service Performance Objective	USOC[/1/]	Current Monthly Rates	Non-Recurring Charge
	1	A	2KZ1A	$172.00	$288.00
		B	2KZ1B	150.00	174.00
		C	2KZ1C	150.00	174.00
Up to 12KV Ground Potential Rise	2	A	2KZ2A	172.00	288.00
		B	2KZ2B	150.00	174.00
		C	2KZ2C	150.00	174.00
	3	A, B or C	2KZ3N	10.75	114.00
	4	A, B or C	2KZ4N	10.75	114.00
	1	A	8KV1A	30.00	43.00
		B	8KV1B	30.10	43.00
		C	8KV1C	30.10	43.00
Up to 18KV Ground Potential Rise	2	A	8KV2A	34.40	53.00
		B	8KV2B	34.40	53.00
		C	8KV2C	34.40	53.00
	3	A, B or C	8KV3N	11.80	53.00
	4	A, B or C	8KV4N	11.80	53.00
	Wideband	A, B or C	8KVWN	15.05	53.00 /2/

/1/ Effective September 9, 2002, these USOCs for Protective Equipment will no longer be available to new customers.

/2/ Material formerly appeared on Sheet 41 in Part 15, Section 2 of this Tariff.

9. CHANNELS (cont'd) /2/

9.1 Rates and Charges (cont'd)

9.1.1 Recurring and Nonrecurring Charges (cont'd)

B. Isolators

Description /Billing Code/[1]	Nonrecurring Charge	Monthly Price
Service Elements		
Isolators		
- 18KV, 4 pair Common Equipment /8KE4X/	$734.00	$70.75
- 18KV, 8 pair Common Equipment /8KE8X/	734.00	78.25
- 18KV, 12 pair Common Equipment /8KE2X/	774.00	93.50
- 18KV, 16 pair Common Equipment /8KE6X/	774.00	101.00

C. Balanced Protection

Description /Billing Code/	Nonrecurring Charge	Monthly Price	
Service Elements			
Balanced Protection			
Mutual Drainage Reactor[3]			
- installed at customer site /AS3HP/	$500.00	$12.90	/2/

/1/ Effective September 9, 2002, these USOCs for Protective Equipment will no longer be available to new customers.

/2/ Material formerly appeared on Sheet 42 in Part 15, Section 2 of this Tariff.

/3/ Protective Equipment/Isolators/Balanced Protection have been renamed High Voltage Protection Service and now appears on Sheets 32-38 in Part 8, Section 8 of this Tariff.

1. CHANNELS /2/

1.2 Description of Channels and Services

1.2.2 Description of Voice Grade Channels and Services

D. MultiPoint Service Options – Voice Grade Channels

3. Telemetry/Alarm Bridging Service (TABS)/1/

a. Service Description

(1) Telemetry/Alarm Bridging Service is a multi-station, voice frequency, BELL Channel Service arrangement designed to provide connections between a master station and a number of remote stations simultaneously. Remote stations are not in direct communication with each other. This service is suitable for multi-point voice frequency, data or tone signaling arrangements, with transmission rates up to 400 baud.

(2) TABS is provided in the following arrangements.

(a) Split Band, Active Bridging

A bridging arrangement consisting of a 4-wire (master station or mid-link channel) frequency split common port and multiple 2-wire (remote station) ports for use in multi-point voice frequency, data or tone signaling arrangements. Two-way (polling) communication occurs between the master station and each remote station.

(b) Summation, Active Bridging

A bridging arrangement utilizing tone signaling consisting of a 2-wire (master station or mid-link channel) common port and multiple 2-wire (remote station) ports. A one-way communication path exists from each remote station to the master station. /2/

/1/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. (N)
Effective December 31, 2005, these services will be withdrawn and completely discontinued. (N)

/2/ Material formerly appeared in Sheets 8-10 in Part 20, Section 15, of this Tariff.

1. CHANNELS (cont'd) /2/

1.2 Description of Channels and Services (cont'd)

1.2.2 Description of Voice Grade Channels and Services (cont'd)

D. MultiPoint Service Options – Voice Grade Channels (cont'd)

3. Telemetry/Alarm Bridging Service (TABS) (cont'd)/1/

b. Regulations

(1) No more than 136 remote stations may be connected to a master station over an individual Split Band Active Bridging or Summation Active Bridging system.

(2) A primary bridge is capable of supporting a maximum of two secondary bridges.

(3) In Split Band Active Bridging and Summation Active Bridging arrangements, secondary bridges may be located in either the same wire center as the primary bridge, or in a wire center different from the primary bridge. Secondary bridges must be directly connected to the primary bridge via mid-link channels. Secondary bridges cannot be connected through other secondary bridges, nor can secondary bridges support subtending bridges.

(4) Secondary bridges, utilized in Split Band Active Bridging arrangements, reduce the 2-wire remote station capacity of the primary bridge. Each secondary bridge reduces the primary bridge capacity by four 2-wire remote station connections.

(5) Each secondary bridge utilized in Summation Active Bridging arrangements reduces the 2-wire remote station capacity of the primary bridge by one. /2/

/1/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. Effective December 31, 2005, these services will be withdrawn and completely discontinued. (N) (N)

/2/ Material formerly appeared in Sheets 8-10 in Part 20, Section 15, of this Tariff.

1. CHANNELS (cont'd) /2/

1.2 Description of Channels and Services (cont'd)

1.2.2 Description of Voice Grade Channels and Services (cont'd)

D. MultiPoint Service Options – Voice Grade Channels (cont'd)

3. Telemetry/Alarm Bridging Service (TABS) (cont'd)/1/

b. Regulations (cont'd)

(6) Access Lines

(a) Access from the master station to a primary bridge in the same wire center as the master station is through a type 3002 local distribution channel for Split Band Active Bridging and through a type 3003 local distribution channel for Summation Active Bridging. Where the primary bridge is located in a wire center different than that serving the master station, a 3002 or 3003 inter-wire center channel is required in addition to the local distribution channel.

(b) Access from a bridge to a remote station in the same wire center is through a type 3050 local distribution channel for Split Band Active Bridging or a type 3040 local distribution channel for Summation Active Bridging. When the station is located in a wire center different than that in which the bridge is located, a 3040 or 3050 inter-wire center channel is required in addition to the local distribution channel. Remote channel connections, as specified in 1.5.2 following, apply to each remote station channel connected to a Split Band Active Bridging arrangement.

(c) Mid-link channels are used to connect secondary bridges to primary bridges. Split Band Active Bridging and Summation Active Bridging mid-link channels consist of type 3002 local distribution channels when the bridges reside in the same wire center. Mid-link channels consisting of both local distribution channels and inter-wire center channels are required between bridges located in different wire centers. Mid-link channel connections apply to each connection between bridges for a Split Band Active Bridging Arrangement. /2/

/1/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. Effective December 31, 2005, these services will be withdrawn and completely discontinued. (N) (N)

/2/ Material formerly appeared in Sheets 8-10 in Part 20, Section 15, of this Tariff.

1. CHANNELS (cont'd) /2/

1.5. Rates and Charges (cont'd)

1.5.2 Recurring and Nonrecurring Charges (cont'd)

D. Split Band Active Bridging[/1/]

Service Element	Description	USOC	Current Monthly Rate	Nonrecurring Rate
Common Equipment, per wire center	- first bridging shelf, 48 two-wire connection capacity	XW1	$162.75	$200.00
	- additional bridging shelf, 48 two-wire connection capacity (reduces the capacity of the first bridging shelf by 4 two-wire connections).	XW2	139.50	200.00
Channel Connections, per channel	- remote station channel connection	XW3	3.12	15.00
	- mid-link channel connection	XW4	31.00	60.00

E. Summation, Active Bridging[/1/]

Service Element	Description	USOC	Current Monthly Rate	Nonrecurring Rate
Common Equipment, per wire center	- first or additional bridging shelf, 10 two-wire connection capacity	XW7	$54.25	$200.00

/2/

/1/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. Effective December 31, 2005, these services will be withdrawn and completely discontinued. (N)

/2/ Material formerly appeared in 4th Revised Sheet 39 in Part 15, Section 2, of this Tariff.

1. CHANNELS (cont'd)

1.2 Description of Channels and Services

1.2.2 Description of Voice Grade Channels and Services

A. Channel Types - Voice Grade

(D)
|
(D)

1. Type 3050[/1/] - A two-wire interface with effective two-wire facilities engineered for 1000 Hz net loss at 10 dB for use exclusively with Split Band Active Bridging. (C)

1.5. Rates and Charges (cont'd)

1.5.2 Recurring and Nonrecurring Charges (cont'd)

A. Channels (cont'd)

Channel Type	Class of Service	Channel Element	Billing Increment	USOC	Current Monthly Rate	Non recurring Charges Per Channel	Design Order Charge Per Order
3050[/2/]	TA3EL (intra-exchange	IWCC	Initial Mile	1LN2X	27.10	-	$475.00
			Subsequent Mile	ILN2X	3.87		

(D)
|
(D)

(D)

/1/ Due to manufacturer discontinuance of equipment necessary to provide Telemetry/Alarm Bridging Service (TABS) and Type 3050, these services are no longer available for new installations. Effective December 31, 2005, these services will be withdrawn and completely discontinued. (C)

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE /1/

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

A. Description /1/

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

MON Ring Service is only available within the Local Access and Transport Areas (LATAs) served by and within the service territories of 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. /1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 135.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /3/

A. Description (Cont'd)

Sub-Rate Systems

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

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

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

SONET 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 card./1/ (C)

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./2/ /3/

/1/ Available where facilities and equipment permit. /3/ (C)
/2/ Available where facilities and equipment permit beginning November 30, 2005. /3/ (C)
/3/ Material formerly appeared in Part 15, Section 3, Sheet 136.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /2/

A. Description (Cont'd)

MON Ring Service offers the following port interfaces:

IBM Protocols[/1/]

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

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

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

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

ISC-3™ (2.125 Gbps) – Inter-System Channel. ISC-3™ links have a peak data rate of 2.125 Gbps and can interconnect IBM™ eServer z900 systems for distances up to 100 km. /2/

/1/ ESCON™, ETR/CLO™, FICON™, ISC-1™, ISC-3™ and GDPS™ are registered trademarks of the International Business Machines (IBM) Corporation, Armonk, NY 10504. /2/ (C)
/2/ Material formerly appeared in Part 15, Section 3, Sheet 137.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

A. Description (Cont'd)

Other Protocols

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

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

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

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

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

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

DVB-ASI Video – Digital Video Broadcasting – provides a 1310 nm optical interface at 270 Mbps. Offered as a riding circuit where facilities and equipment permit. /1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /2/

A. Description (Cont'd)

Other Protocols (Cont'd)

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

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.[/1/]

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.[/1/]

SONET OC-192/OC-192c - provides a fiber-based 9953.28 Mbps synchronous optical full duplex data transmission capability.[/1/] /2/

/1/ These port interfaces are available at both the Customer Premises Node and the Central Office Node. All other port interfaces are available only at the Customer Premises Node. /2/ /2/
/2/ Material formerly appeared in Part 15, Section 3, Sheet 139.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

B. Definitions

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

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

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

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

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

Optical Amplifier
Provides for an optical signal boost if the distance between nodes exceeds the transmission loss parameters (link loss specific). Engineering considerations may dictate the need for more than one optical amplifier on a circuit route. These additions may be service affecting. Optical amplifiers may be located at a Customer Premises Node, a Central Office Node or at a serving wire center. /1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

B. Definitions (Cont'd)

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

Regenerator
Provides for re-timing, re-shaping and regeneration of signals if degradation exceeds the dispersion or optical amplifier noise limits. Provided on a per shelf basis for up to 2.5 Gigabit Ethernet service and on a per circuit, per each location the circuit is regenerated basis for up to 10 Gigabit Ethernet service. /1/

Sub-Rate System /2/
Allows for multiple ports, also called riding circuits, on a single wavelength /2/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 140.
/2/ Material formerly appeared in Part 15, Section 3, Sheet 141.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

C. Terms and Conditions

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

1. The customer-provided equipment must deliver the data signals for the MON Ring Service transport within the industry specification for the subscribed data services.

2. MON Ring Service provides physical layer transport only. The Company assumes no responsibility for the signals generated by the customer, for the quality of or defects in such signals, for the reception of signals by the customer, or address signaling to the extent addressing is performed by the customer. Error detection and correction of data generated by the customer is the customer's responsibility.

3. The service is considered interrupted when the customer reports a service disruption to the Company and the Company confirms that continuity of its service has been lost.

4. MON Ring Service may have distance limitations based on the services carried and may require routing through central offices based on loss limits between nodes. Services with facility length limitations may not be available on some MON rings, or may not be available between some nodes on certain MON rings.

5. Optical Amplifiers and/or Regenerators may have to be added to an MON Ring Service subsequent to the initial installation.

6. When additional services are added, such installation may cause a service interruption to existing unprotected channels, or a protection switch on protected channels.

7. Where conditions, equipment, and facilities permit, MON Ring Service will be offered in two configurations. Customers can purchase MON Ring with growth capacity up to 16 wavelengths or up to 32 wavelengths. The 32 wavelength system may, at the discretion of the Company, be built as two 16 wavelength systems sharing common fiber and some common equipment. Depending upon the configuration, conversion from a 16 wavelength MON Ring Service to a 32 wavelength MON Ring Service may not be available.

8. The minimum service period for MON Ring Service is 36 months or 60 months. /1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

C. Terms and Conditions (Cont'd)

9. MON Ring Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges may apply.

10. Floor space for subsequent shelf growth at a Central Office Node beyond the initial installation will be provided where available, but cannot be guaranteed for subsequent shelf growth beyond the initial installation.

11. Prior to confirming an order for service, the Company will provide a proposed route diagram to the customer.

12. Installation of service will not begin until the customer has accepted the proposed routing by the Company.

13. Channel protection may not be available for all interface types.

14. Conversion from MON Service to MON Ring Service is not available.

15. Conversions from any other lower speed services to MON Ring Service are not available.

16. Where conditions, equipment, and facilities permit, the customer must first order the MON Ring Transport System followed by the MON Ring Channels. When ordering riding services, the customer must first order the MON Ring Transport System, followed by a MON Ring Sub-rate System over which these services will be assigned. When riding services are ordered on a Sub-Rate System, they are represented by different rate elements than those services ordered directly on the MON Ring.

17. Services with time-delay sensitive protocols have facility length limitations and may affect the design/availability of MON Ring Service. (E.g., CPU to CPU communications have a maximum distance limitation of 60 km.) The Company will work cooperatively with the customer to determine if the desired services can operate between the customer's designated premises. /1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

C. Terms and Conditions (Cont'd)

18. Neither electrical interfaces nor optical add/drop multiplexing are available with this service.

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

D. Features

1. Standard Features

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

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

A combination of these configurations may be used in a network design depending on the customer's traffic pattern. /1/

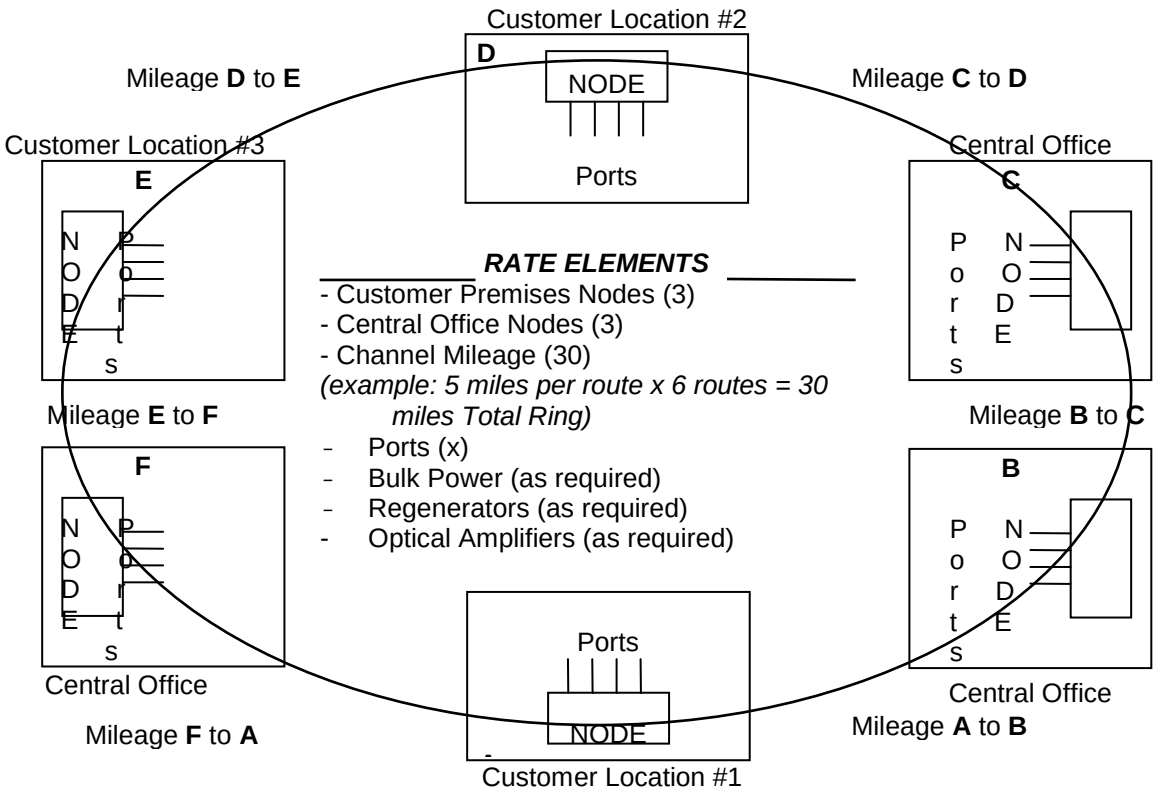
/1/ Material formerly appeared in Part 15, Section 3, Sheet 144.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

D. Features (Cont'd)

1. Standard Features (Cont'd)

Diagram of MON Ring



/1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

D. Features (Cont'd)

1. Standard Features (Cont'd)

Route Diversity

- MON Ring Service is configured with diversely routed fiber whenever possible. MON Ring Service will be available for protected channels 99.999% of the time and protected channels will switch within 50 milliseconds (not to exceed 2 seconds). Equipment interfaces towards the customer are not protected. Unprotected channels will be lost in the event of a fiber path failure on which the circuit is assigned.

- Routing of fiber may be diversified from the customer's property line to their serving wire center or alternate serving wire center to ensure that loop fibers follow separate paths to the serving central office. In addition, IOF fiber (if applicable) may be diversified to ensure that with any serving wire center Central Office Node, the fibers do not egress and ingress at the same point. In cases, where the central office does not have multiple entrance fiber facilities, the section of the fiber from the closest manhole (to the serving wire center) will be routed within the same duct structure.

- At the customer's request, additional protection to the Customer Premises Nodes can be provided via diverse dual entrance facilities. This special request will cause the customer to incur special construction cost. Without this special request, diverse fiber is provided to the closest manhole to the customer location property line. The customer or building owner is responsible for providing conduit designed to meet industry standards and local fire and safety codes from the property line to the building to within the premises. The customer determines route and method of protection inside the premises.

- In the case where dual entrance facilities are not established at the customer premises, facilities routed within the same duct structure from the property line to the building equipment location are not diverse. /1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

E. Technical References

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

(C)

(C)

The Technical References can be obtained from:

AT&T at http://www.sbc.com/public_affairs/regulatory_documents/tariffs/1,5932,448,00.html?pid=240 (C)

The Telcordia Publication(s) can be obtained from:

Telcordia Technologies, Inc.
8 Corporate Place, PYA 3A-184
Piscataway, New Jersey 08854-4156 /1/

/1/ Material formerly appeared in Part 15, Section 3, Sheet 147.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

F. Prices

1. Service Elements

Description /Billing Code/	Nonrecurring Charge
Administrative Charge	
- per service order /ORCMX/	ICB
Design and Central Office Connection Charge	
- per riding circuit /NRBCL/	ICB
Customer Connection Charge	
Service Establishment	
- per node /NRBBL/	ICB
Subsequent Installation	
- per subsequent shelf/NHCNL/	ICB

/1/

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

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /2/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Transport System			
Customer Premises Node			
(includes first shelf) /F2ND1/	ICB	ICB	ICB
- per subsequent shelf /F2NDS/	ICB	ICB	ICB
Central Office Node			
(includes first shelf) /F2NC1/	ICB	ICB	ICB
- per subsequent shelf /F2NCS/	ICB	ICB	ICB
Channel Mileage			
- per V&H mile or fraction thereof /1L5XX/	ICB	ICB	ICB
Optical Amplifier (as required)			
- C band(per location) /67QXX/	ICB	ICB	ICB
- L band(per location) /67QSX/[1]	ICB	ICB	ICB
Regenerator (as required)			
- up to 2.5 Gbps (per shelf) /V8RXX/	ICB	ICB	ICB
- up to 10 Gbps (per circuit, per each location) /V8R2C/	ICB	ICB	ICB
Bulk Power (as required)			
- per first shelf (shelves 1-4) /CBVDX/	ICB	ICB	ICB
- per subsequent shelf (shelves 5-8) /CBVDS/	ICB	ICB	ICB

/1/ Available where facilities and equipment permit. /2/
/2/ Material formerly appeared in Part 15, Section 3, Sheet 149.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels			
Ports			
- per port/per circuit terminating location			
ETR/CLO™			
- unprotected channel /POYKW/	ICB	ICB	ICB
FICON™ (1.0625 Gbps)			
- unprotected channel /POYMW/	ICB	ICB	ICB
- protected channel /POYMP/	ICB	ICB	ICB
FICON™ (2.125 Gbps)			
- unprotected channel /POYWW/	ICB	ICB	ICB
- protected channel /POYWP/	ICB	ICB	ICB
ISC-1™			
- unprotected channel /POYJW/	ICB	ICB	ICB
- protected channel /POYJP/	ICB	ICB	ICB
ISC-3™			
- unprotected channel /POY9W/	ICB	ICB	ICB
- protected channel /POY9P/	ICB	ICB	ICB
Fibre Channel (1.0625 Gbps)			
- unprotected channel /POYNW/	ICB	ICB	ICB
- protected channel /POYNP/	ICB	ICB	ICB
Fibre Channel (2.125 Gbps)			
- unprotected channel /POYYW/	ICB	ICB	ICB
- protected channel /POYYP/	ICB	ICB	ICB
Gigabit Ethernet			
- unprotected channel /POYLW/	ICB	ICB	ICB
- protected channel /POYLP/	ICB	ICB	ICB /1/

/1/ Material formerly appeared in Part 156, Section 3, Sheet 150.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /2/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels (Cont'd)			
Ports			
- per port/per circuit terminating location			
10 Gigabit Ethernet (WAN PHY)			
- unprotected channel /POYTW/	ICB	ICB	ICB
- protected channel /POYTP/	ICB	ICB	ICB
10 Gigabit Ethernet(LAN-PHY)			
- unprotected channel /POYUW/	ICB	ICB	ICB
- protected channel /POYUP/	ICB	ICB	ICB
SONET OC-12/OC-12c			
- unprotected channel /POYFW/	ICB	ICB	ICB
- protected channel /POYFP/	ICB	ICB	ICB
SONET OC-48/OC-48c/1/			
- unprotected channel /POYGW/	ICB	ICB	ICB
- protected channel /POYGP/	ICB	ICB	ICB
SONET OC-192/OC-192c			
- unprotected channel /POYOW/	ICB	ICB	ICB
- protected channel /POYOP/	ICB	ICB	ICB

/1/ Available where facilities and equipment permit. /2/
/2/ Material formerly appeared in Part 15, Section 3, Sheet 151.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /2/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels (Cont'd)			
Ports			
- per port/per circuit terminating location			
GigE/FC/FICON™ Sub-Rate System			
- unprotected channel /POY1W/	ICB	ICB	ICB
- protected channel /POY1P/	ICB	ICB	ICB
GigE Riding Circuit[1]			
- unprotected channel /POY4W/	ICB	ICB	ICB
- protected channel /POY4P/	ICB	ICB	ICB
Fibre Channel (1.0625) Riding Circuit/1/			
- unprotected channel /POY6W/	ICB	ICB	ICB
- protected channel /POY6P/	ICB	ICB	ICB
FICON™ (1.0625) Riding Circuit[1]			
- unprotected channel /POY7W/	ICB	ICB	ICB
- protected channel /POY7P/	ICB	ICB	ICB

/1/ Available only when ordered with GigE/FC/FICON™ Sub-Rate System. /2/
/2/ Material formerly appeared in Part 15, Section 3, Sheet 152.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /3/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels (Cont'd)			
Ports			
- per port/per circuit terminating location			
ESCON™ /1/			
- unprotected channel /PWY1W/	ICB	ICB	ICB
- protected channel /PWY1P/	ICB	ICB	ICB
Fast Ethernet /1/			
- unprotected channel /PWY2W/	ICB	ICB	ICB
- protected channel /PWY2P/	ICB	ICB	ICB
D1 Video /1/			
- unprotected channel /PWY3W/	ICB	ICB	ICB
- protected channel /PWY3P/	ICB	ICB	ICB
DVB-ASI Video /1/			
- unprotected channel /POY8W/	ICB	ICB	ICB
- protected channel /POY8P/	ICB	ICB	ICB
SONET OC-3/OC-3c /1/			
- unprotected channel /PWY4W/	ICB	ICB	ICB
- protected channel /PWY4P/	ICB	ICB	ICB
OC-48 Sub-Rate System /2/			
- unprotected channel /POYRW/	ICB	ICB	ICB
- protected channel /POYRP/	ICB	ICB	ICB
SONET OC-48/OC-48c Riding Circuit /1/, /2/			
unprotected channel /POYZW/	ICB	ICB	ICB
- protected channel /POYZP/	ICB	ICB	ICB

/1/ Available only where facilities and equipment permit beginning November 30, 2005.
/2/ Available only when ordered with OC-48 Sub-Rate System beginning November 30, 2005. /3/
/3/ Material formerly appeared in Part 15, Section 3, Sheet 153.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /5/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels (Cont'd)			
Ports			
- per port/per circuit terminating location			
Sub-Rate System[/1/]			
- unprotected channel /POYSW/	ICB	ICB	ICB
- protected channel /POYSP/	ICB	ICB	ICB
ESCON™ Riding Circuit[/1/ /2/ /4/]			
- unprotected channel /POYHW/	ICB	ICB	ICB
- protected channel /POYHP/	ICB	ICB	ICB
Fast Ethernet Riding Circuit[/1/ /2/]			
- unprotected channel /POYCW/	ICB	ICB	ICB
- protected channel /POYCP/	ICB	ICB	ICB
D1 Video Riding Circuit[/1/ /2/]			
- unprotected channel /POYVW/	ICB	ICB	ICB
- protected channel /POYVP/	ICB	ICB	ICB
DVB-ASI Video Riding Circuit[/1/ /2/]			
- unprotected channel /PWY5W/	ICB	ICB	ICB
- protected channel /PWY5P/	ICB	ICB	ICB
SONET OC-3/OC-3c Riding Circuit[/1/ 2/ /4/]			
- unprotected channel /POYEW/	ICB	ICB	ICB
- protected channel /POYEP/	ICB	ICB	ICB

/1/ Available where facilities and equipment permit.
/2/ Available only when ordered with a Sub-Rate System.
/3/ Also available with ESCON Sub-Rate System.
/4/ Also available with SONET OC-3/OC-12 Sub-Rate System. /5/
/5/ Material formerly appeared in Part 15, Section 3, Sheet 154.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /3/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly Payment Term Payment Plans 36 Months	60 Months	Monthly Extension
MON Ring Channels (Cont'd)			
Ports			
- per port/per circuit terminating location			
ESCON™ Sub-Rate System[/1/]			
- unprotected channel /POY2W/	ICB	ICB	ICB
- protected channel /POY2P/	ICB	ICB	ICB
OC-3-OC-12 Sub-Rate System[/1/]			
- unprotected channel /POY3W/	ICB	ICB	ICB
- protected channel /POY3P/	ICB	ICB	ICB
OC-12/OC-12c Ridging Circuit[/1/ /2/]			
- unprotected channel /POY5W/	ICB	ICB	ICB
- protected channel /POY5P/	ICB	ICB	ICB

/1/ Available only where facilities and equipment permit.
/2/ Available only when ordered with OC-3/OC-12 Sub-Rate System. /3/
/3/ Material formerly appeared in Part 15, Section 3, Sheet 155.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

F. Prices (Cont'd)

2. Payment Plans

- Term Payment Plans

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

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

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

- Single Payment Option (SPO)

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

3. Termination Charges

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

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

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

/1/ Material formerly appeared in Part 15, Section 3, Sheet 156.

11. MULTI-SERVICE OPTICAL NETWORK RING SERVICE (Cont'd) /1/

F. Prices (Cont'd)

4. Credit Allowance

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

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

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

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

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

/1/ Material formerly appeared in Part 15, Section 3, Sheet 157.

128, 256 and 384 SERVICE[/1/] /2/(C)

A. Description

128, 256 and 384 Service provides for the simultaneous two-way transmission of a serial, bipolar, return-to-zero, isochronous digital signal at speeds of 128, 256 and 384 Kbps. The service is available in a two-point configuration only between;

- Two customer-designated premises.
- A customer designated premise and a Company wire center where cross-connection or hubbing is performed.
- A customer designated premise and a Company wire center for termination in a DS3 or DS1/128, 256 or 384 Central Office Multiplexer, NRS system, or for connection to Optical Interconnection Service.
- Two Company offices when connecting two NRS systems via Base Rate Service, 128, 256 or 384 Service, DS1 Service, and DS3 Service channel mileage and channel mileage terminations to interconnect Base Rate Services, 128, 256 or 384 Services, DS1 Service, DS3 service channels included in the customer's database for the NRS.

B. Definitions

DS1
A service which provides for the simultaneous two-way transmission of a serial, bipolar, return-to-zero, isochronous digital signal at a terminating bit rate of 1.544 megabits per second (mbps).

C. Terms and Conditions

1. 128, 256 and 384 Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges may apply.

2. Rate Zone Wire Center Assignment
   Each Company wire center has been assigned to a Rate Zone. A table listing all Rate Zone assignments can be found in Part 15, Section 1, (U), of this guidebook. /2/

/1/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis. (N) (N)

/2/ Material formerly appeared on Part 15, Section 3, Sheets 12, 13 and 14.

128, 256 and 384 SERVICE (Cont'd)[/1/]

D. Features

1. Optional Features

Network Reconfiguration Service[/2/] (C)
128, 256 and 384 Service is available for use with Network Reconfiguration Service.

Central Office Multiplexing and Cross Connect Services
These optional services are available with 128, 256 and 384 Service. Refer to Central Office Multiplexing and Cross Connect Services later in this Section.

Shared Network Arrangement
128, 256 and 384 Service is available for connection to a host's central office multiplexer. Refer to Shared Network Arrangement in Part 15, Section 1.

E. Technical References

Performance parameters for 128, 256 and 384 Service may be found in the Technical References listed below.

All signals generated by Network Channel Terminating Equipment (NCTE) must meet the signal and format constraints contained in Telcordia (formerly known as Bellcore) Publication GR-54-CORE. This document also contains the specifications for Clear Channel Capability.

Subject	Technical Reference
Service Description and Interface Requirements for Ameritech FT-1 Digital Service	AM TR-TMO-000106
High-Capacity Digital Service (1.544 Mbps) Interface Generic Requirements for End Users	GR-54-CORE (Telecordia)

The Technical Reference can be obtained from:

APEx Support Team
(734) 523-7348

The Telcordia Publication(s) can be obtained from:

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

/1/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis.
/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. (N) (N)

128, 256 and 384 SERVICE (Cont'd)[/2/] /3/(C)

F. Prices

1. Service Elements

Description /Billing Code/	Nonrecurring Charge
Administrative Charge[/1/] per order	
Zone 1 /NRBA1/	$50.00
Zone 2 /NRBA2/	50.00
Zone 3 /NRBA3/	50.00
Design and Central Office Connection Charge[/1/] per circuit	
Zone 1 /NRBD1/	114.00
Zone 2 /NRBD2/	114.00
Zone 3 /NRBD3/	165.00
Customer Connection Charge[/1/] per termination	
Zone 1 /NRBB1/	213.00
Zone 2 /NRBB2/	213.00
Zone 3 /NRBB3/	240.00

/1/ For those customers who choose a Term Payment Plan (TPP) period of 36 months or greater in length for new installations, the Administrative Charge, Design and Central Office Connection Charge and Customer Connection Charge will not apply. However, customers requesting termination of service prior to the completion of a minimum of 36 months of a 36 month or greater TPP term will become liable for payment of Nonrecurring Charges described above. /3/

/2/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis. (N) (N)

/3/ Material formerly appeared on Part 15, Section 3, Sheet 17.

128, 256 and 384 SERVICE (Cont'd)[/2/] /3/(C)

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Monthly	Monthly Payment *Term Payment Plans* 12 Months	36 Months	60 Months[/1/]
Local Distribution Channel				
- per point of termination				
Zone 1 /TZ4X1/	$395.00	$265.00	$165.00	$150.00
Zone 2 /TZ4X2/	415.00	275.00	170.00	155.00
Zone 3 /TZ4X3/	440.00	308.00	185.00	165.00
Channel Mileage Termination				
- per point of termination				
Zone 1 /CZ4X1/	50.00	50.00	50.00	50.00
Zone 2 /CZ4X2/	50.00	50.00	50.00	50.00
Zone 3 /CZ4X3/	50.00	50.00	50.00	50.00
Channel Mileage				
- per mile				
Zone 1 /1YZX1/	12.00	12.00	12.00	12.00
Zone 2 /1YZX2/	12.00	12.00	12.00	12.00
Zone 3 /1YZX3/	12.00	12.00	12.00	12.00

Description /Billing Code/	Nonrecurring Charge
Optional Features and Functions	
Shared Network Arrangement	
- processing charge, per order	
Zone 1 /SRNX1/	$30.00
Zone 2 /SRNX2/	30.00
Zone 3 /SRNX3/	30.00

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers. /3/

/2/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis. (N) (N)

/3/ Material formerly appeared on Part 15, Section 3, Sheet 18.

128, 256 and 384 SERVICE[/2/] (Cont'd) /3/(C)

F. Prices (Cont'd)

2. Payment Plans

- Month to Month
  128, 256 and 384 Service is available on a month to month basis.

- Term Payment Plans
  128, 256 and 384 Service is available under the Term Payment Plan (TPP) whereby customers must select either a 12, 36 or 60[/1/] month period. After the selected Term Payment Plan period is satisfied, the monthly rate will apply unless a new TPP is selected. Refer to *Term Payment Plans* in Part 15, Section 1.

- Single Payment Option (SPO)
  A Single Payment Option is available for this service. Refer to *Term Payment Plans - Single Payment Option* in Part 15, Section 1.

3. Termination Charges

Termination Charges will apply to service terminated prior to the contracted period. The termination charge for all TPP terms for 128, 256 and 384 Service will be calculated as described in *Term Payment Plans - Termination Charges* in Part 15, Section 1.

4. Credit Allowance

A credit allowance will be given for failure to meet the installation interval service date or for interruption of service. Refer to Credit Allowances in Part 15, Section 1 for calculating credit allowances. /3/

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers. /3/ /3/
/2/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis. (N) (N)
/3/ Material formerly appeared on Part 15, Section 3, Sheets 20 and 21.

GIGAMAN® SERVICE /1/

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

A. Description /1/

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

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

B. Definitions

Channel Mileage (CM)
Provides for the transmission facilities between the serving wire centers associated with the designated customer premises.

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

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

Wire Center Termination (WCT)
Provides for the termination of digital transmission facilities between two or more serving wire centers. These transmission facilities are categorized as channel mileage, as described above. /1/

® GigaMAN is a registered trademark of AT&T Intellectual Property /1/(C)

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

GIGAMAN® SERVICE (Cont'd) /1/

C. Terms and Conditions

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

1. The customer provided equipment (CPE) must deliver the data signal for the GigaMAN transport within the industry specification for the subscribed data service. See Paragraph *E. – Technical References.*

2. GigaMAN provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals generated by CPE, for the quality of or defects in such transmission, for the reception of signals by CPE, or address signaling to the extent addressing is performed by CPE. Error detection and correction of data generated by CPE is the customer's responsibility.

3. GigaMAN is designed to provide connectivity at the discrete bit rate of 1 Gbps. The service is considered interrupted when the customer reports to the Company and the Company confirms that continuity has been lost.

4. GigaMAN Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges may apply.

5. Node terminations are not allowed in Company wire centers.

6. Interoffice mileage is calculated using the V and H coordinate method described in Part 15, Section 1. /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

C. Terms and Conditions (Cont'd)

7. Repeaters (circuit regenerators) will be located in Company wire centers as required. A monthly charge will be associated with each repeater network element, except for the first repeater in a circuit path (as the first repeater is also used for service alarming and monitoring purposes). GigaMAN circuits provisioned prior to November 19, 2003 may not have required a repeater.

8. Route diversity options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. Route diversity is only available to customers with service installed after November 19, 2003.

9. 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.

10. Channel Mileage charges are applicable on both paths of the GigaMAN Service when any of the Protection Options are ordered.

11. If Protection Options are added to an existing GigaMAN circuit that was installed after November 19, 2003, a temporary service interruption will result as the new protected circuit must be re-designed and re-installed. Termination Charges will not apply for the circuit redesign (see *Term Pricing Plan* following for requirements). This installation must occur during an agreed-upon maintenance window between a designated customer representative and the Company. The customer will be responsible for providing adequate floor space, as determined by the Company, to accommodate additional equipment bays and related power protection equipment (such as batteries). Protection Options are contingent on availability of equipment and fiber facilities from premise to premise. Other Special Construction charges, as necessary, may apply.

12. GigaMAN Service is not available in a meet-point billing arrangement involving other Carrier's. /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

D. Features

1. Standard Features

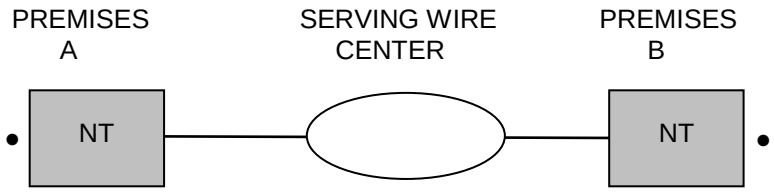
All basic service configurations provide full duplex transmission. There is one type of GigaMAN Service configuration: Node-to-Node Service.

Node-To-Node Service

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

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

Node-to-Node Configuration
(Intra-Wire Center)



NT = Node Termination

Applicable service elements are:

- Node Termination (two applicable) /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

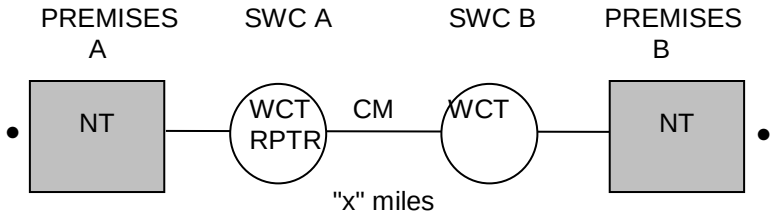
D. Features (Cont'd)

1. Standard Features (Cont'd)

Node-To-Node Service (Cont'd)

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

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



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

Applicable service elements are:

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

/1/

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

GIGAMAN® SERVICE (Cont'd) /2/

D. Features (Cont'd)

2. Optional Features

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

The following options are available for Diversity:

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

The following options are available for Protection:

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

/2/

/1/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit. /2/ /2/

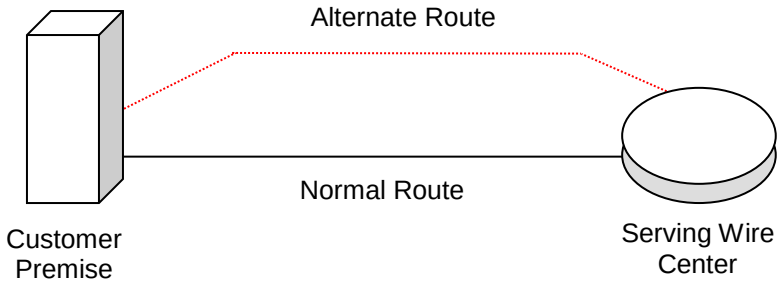
/2/ Material formerly appeared in Part 15, Section 4, Sheet 6.

GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

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



/1/

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

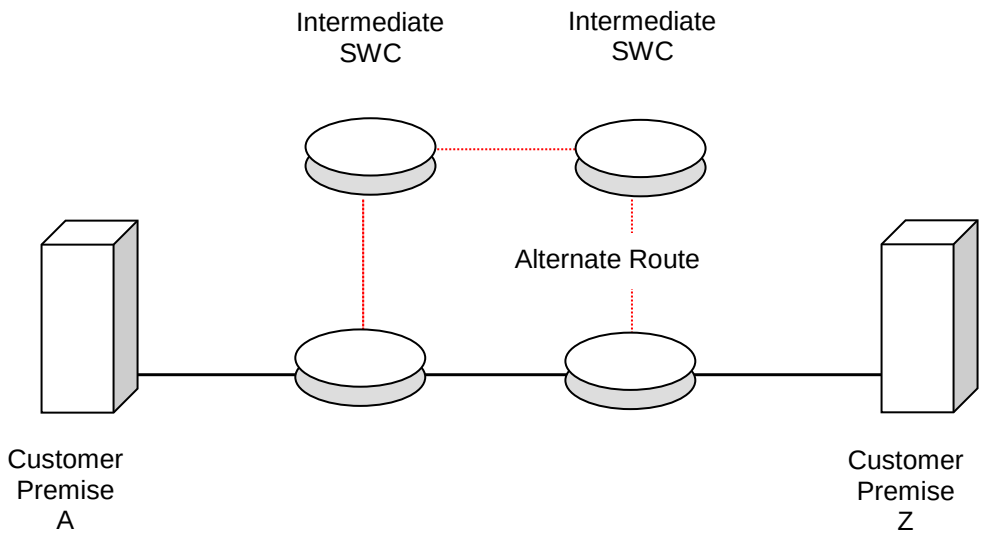
GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

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

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



/1/

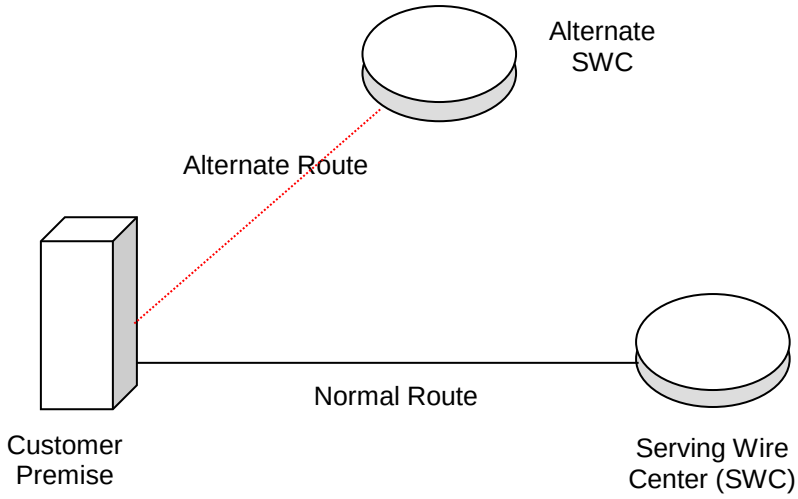
/1/ Material formerly appeared in Part 15, Section 4, Sheet 8.

GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

Alternate Wire Center Diversity
Alternate Wire Center Diversity is for the local loop only. It provides a node termination transmission path for GigaMAN service between the customer's designated premises and a wire center that is not the normal (or standard) serving wire center. The Company will choose the alternate wire center closest to the 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 node termination channels will be provisioned over the alternate route. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer's premise, at the customer's expense.



/1/

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

GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

Equipment Only Protection
Equipment Only Protection offers a network design where one GigaMAN signal will be routed down two different fiber pairs that co-exist in the same cable and conduit structure, and terminate at the customer's premise in the same device (but into separate and distinct modules). Protection switching will occur between the 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.

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

Equipment Plus Fiber Path Protection, with …

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

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

GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

Equipment Plus Fiber Path Protection (Cont'd)

Equipment Plus Fiber Path Protection, with … (Cont'd)

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

Inter-Wire Center Path Protection
Each fiber pair is routed through different Central Offices between the two serving wire centers, or between the standard serving wire center and an alternate serving wire center. Inter-Wire Center Protection begins at the first manhole out of the Central Office. If only the two serving wire centers are involved, the two fiber pairs will be routed down two fiber paths that are separated by at least 10 feet. If any location between the fiber paths is closer than 10 feet, the location or locations will be disclosed to the customer. The customer will determine whether to accept the engineered path, or agree to pay Special Construction Charges to have a completely diverse route constructed. The customer will receive Equipment Only Protection for an inter-office segment where facilities are not available. If an equipment failure or fiber cable cut occurs on one of the inter-office routes, the circuit will be switched to the alternate path in 50 milliseconds or less. Interoffice mileage will be calculated between the intermediate serving wire centers along the circuit paths of both protected fiber pairs. /1/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 11.

GIGAMAN® SERVICE (Cont'd) /1/

D. Features (Cont'd)

2. Optional Features (Cont'd)

Power Protection
Power Protection provides customers with battery back-up for up to eight (8) hours to maintain GigaMAN equipment in case of a power failure. Power Protection is provided on a per rack or cabinet basis, and customers in a multi-tenant building will require separate equipment and bays dedicated to each customer. Power Protection is not available for installations using a wall mounted cabinet. Requests for Power Protection are subject to equipment availability and compatibility. Upon receipt of a customer request for Power Protection, the Company will determine the availability, design and engineering requirements for Power Protection, and the appropriate number of service element charges to apply. The addition of Power Protection to existing GigaMAN Service will result in a temporary service interruption. /1/

E. Technical References /2/

The customer interface to GigaMAN Service is as specified in:

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

The Technical Reference can be obtained from:

APEx Support Team
(734) 523-7348

The ANSI publication can be obtained from:

Alliance for Telecommunications Industry Solutions
1200 G. Street, NW Suite 500
Washington, DC 20005 /2/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 12.
/2/ Material formerly appeared in Part 15, Section 4, Sheet 13.

GIGAMAN® SERVICE (Cont'd) /3/

F. Prices

This guidebook is filed under sec. 196.194 Wis. Stats. Therefore, any contract or amendment to such a contract shall be compensatory as determined under Sec. 196.204 (5) and (6) Wis. Stats. Within 20 days after a contract or an amendment to such a contract has been executed, the Company shall submit to the Commission written notice of the general nature of the contract and the parties to the contract.

The receipt of notification of any contract or amendment to a contract established under this guidebook shall not constitute approval of all terms and provisions therein. The Commission retains jurisdiction to investigate on its own motion or upon complaint any contractual term or provision under which the guidebook service is offered, and to take any necessary action pursuant to such investigation, including issuing orders.

1. Service Elements

Description /Billing Code/	Nonrecurring Charge
Administrative Charge/1/	
- per service order /ORCMX/	$140.00
Design and Central Office Connection Charge/1/	
- per circuit /NRBCL/	230.00
Customer Connection Charge/1/	
- per premises node and wire center terminations /NRBBL/	755.00
Protection Options	
Per terminating end	
- Equipment Only /CPAEX/	625.00
- Equipment Plus Fiber Path Protection, with:	
Alternate Wire Center Path Protection /CPAFX/, or	1,400.00
Local Channel Path Protection /CPAGX/	1,225.00
Per rack or cabinet	
- Power Protection /VBBGX/	475.00
Per circuit	
- Inter-Wire Center Path Protection/2/ /CPAHX/	625.00 /3/

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

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

/3/ Material formerly appeared in Part 15, Section 4, Sheet 14.

GIGAMAN® SERVICE (Cont'd) /2/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

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

/2/

/1/ Effective September 24, 2003, service arrangements utilizing a legacy mid-span repeater (/M1RGX/) are no longer available for new customers. Should existing customers utilizing a legacy mid-span repeater disconnect (or relocate one end of) their service, the legacy mid-span repeater will no longer be available. The new equipment platform must be used in those scenarios. /2/

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

GIGAMAN® SERVICE (Cont'd) /2/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

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

/1/ Inter-Wire Center Path Protection must be ordered in conjunction with an Equipment Protection option at each end of the circuit. /2/ /2/

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

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

2. Payment Plans

- Term Payment Plans
  GigaMAN Service is only available under the Term Payment Plan (TPP) whereby customers must select either a 12, 24, 36 or 60 month period. After the selected Term Payment Plan period is satisfied, the monthly extension price will apply unless a new TPP is selected. Refer to *Term Payment Plans* in Part 15, Section 1. Customers re-negotiating an existing term payment plan contract expiring after November 19, 2003 will be required to migrate to the new equipment platform.

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

- Deferred Payment Option (DPO)
  A deferred payment option is not available for this service.

3. Termination Charges

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

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

- The customer must issue a disconnect order for their legacy GigaMAN Service and place a service order for GigaMAN Service using the new equipment platform. Termination Charges for the legacy service will be waived. Standard nonrecurring charges to install GigaMAN Service using the new equipment platform will apply.

- The term of the new contract must be equal to or greater than the remaining time left on the legacy GigaMAN contract. /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

3. Termination Charges (Cont'd)

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

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

- The customer must issue a disconnect order for the existing location and place a new service order for GigaMAN Service at the new location. Termination Charges for the existing location will be waived. Standard nonrecurring charges to install GigaMAN Service as a new circuit will apply.

- Negotiated down time will apply, as the new circuit will need to be designed and installed.

- The term of the new contract must be equal to or greater than the remaining time left on the existing GigaMAN contract.

- The existing GigaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing GigaMAN Service with 1-year contracts will not be eligible for this Moves option.

Moves are contingent on availability of fiber from premise to premise. Other Special Construction charges, as necessary, may apply. /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

3. Termination Charges (Cont'd)

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

- The customer must issue a disconnect order for the existing circuit and place a service order for the newly protected circuit. Termination Charges for the existing circuit will be waived. Standard nonrecurring charges to install the newly protected GigaMAN Service will apply. (the conditions described here do not apply to Power Protection added to an existing GigaMAN circuit).

- Negotiated down time will apply, as the new circuit will need to be designed and installed.

- The term of the new contract must be equal to or greater than the remaining time left on the existing GigaMAN contract. (the conditions described here do not apply to Power Protection added to an existing GigaMAN circuit).

- The existing GigaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing GigaMAN Service with 1-year contracts will not be eligible for this option. (the conditions described here do not apply to Power Protection added to an existing GigaMAN circuit).

Addition of Protection Options are contingent on availability of equipment and fiber facilities from premise to premise. Other Special Construction charges, as necessary, may apply. /1/

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

GIGAMAN® SERVICE (Cont'd)

/1/

F. Prices (Cont'd)

3. Termination Charges (Cont'd)

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

- An upgrade is considered an increase in speed or capacity when comparing GigaMAN Service to the new service.

- The customer must issue a disconnect order for the existing GigaMAN Service and place a service order for the new, higher-speed service, such that there is no more than 90 days overlap in service.

- The same customer locations must be utilized for the new, higher-speed service.

- The expiration date for the new, higher-speed service is beyond the end of the original TPP term associated with the existing GigaMAN Service.

- The existing GigaMAN Service must have been in service for a minimum period of 12 months for a 24-month contract, 15 months for a 36-month contract or 18 months for a 60-month contract. Existing GigaMAN Service with 12-month contracts will not be eligible for this Upgrade option. /1/

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

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

3. Termination Charges (Cont'd)

Migration to AT&T Dedicated Ethernet

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

- The new AT&T Dedicated Ethernet and the existing GigaMAN Service must be billed to the same customer of record at the same customer locations.

- The customer's existing service must have been in place for at least 12 months.

- The minimum term for the new service must be at least 12 months and must be equal to or greater than the number of months remaining in the customer's existing Term Payment Plan (TPP) term.

- The speed (capacity/bandwidth) of the new service must be equal to or 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/

/1/ Material formerly appeared in Part 15, Section 4, Sheet 20.1.

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

4. Credit Allowance

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this 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 21.

GIGAMAN® SERVICE (Cont'd) /1/

F. Prices (Cont'd)

4. Credit Allowance (Cont'd)

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 References*).

- 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 end of the month when the unavailability event occurred. /1/

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

9. NETWORK RECONFIGURATION SERVICE (NRS) /2/

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

A. Description /2/

Network Reconfiguration Service (NRS) gives customers the ability to reconfigure individual channel segments within their networks via electronic cross-connections. These segments may consist of DS3 Service, DS1 Service, 128, 256 and 384 Service/1/ and Base Rate Service. Customers may also reconfigure individual channels that are part of a reconfigurable multiplexed DS1 Service or multiplexed DS3 Service. Although NRS is focused primarily on digital services, customers may utilize NRS with analog services by ordering reconfigurable DS1's equipped with Central Office Multiplexing in addition to the NRS DS1 Terminations and then using the multiplexed DS1 for the transport of the analog services. Customer access to NRS may be made directly by the customer utilizing customer-provided terminal equipment on the customer's premises in conjunction with a dial-in line. Access is also available through a Company attendant reached by a dial-access telephone line.

B. Definitions

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

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

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

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

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

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

/1/ Effective September 6, 2016, customers may not establish new term plans of any length for 128, 256 and 384 Service, and existing term plans may not be renewed. For existing service after any term plan expires, service will be provided only on a month-to-month basis. /2/
/2/ Material formerly appeared on Part 15, Section 3, Sheets 125 and 126.

9. NETWORK RECONFIGURATION SERVICE (NRS) (Cont'd) /1/

C. Terms and Conditions

1. NRS will be available on a continuous basis except for the performance of scheduled preventative and routine maintenance or scheduled software updates. The customer will be notified at least 24 hours in advance of any scheduled service interruptions.

2. NRS system locations are found in the National Exchange Carrier Association, Inc., Tariff F.C.C. No. 4.

3. Services that are cross-connected by the Network Reconfiguration Service will not operate properly unless they have identical technical characteristics to ensure compatibility and proper operation. NRS customers are responsible for the compatibility of the services they choose to cross-connect.

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

4. Network Reconfiguration Service is provided at the option of the Company where facilities permit. If appropriate facilities are not available, Special Construction charges may apply.

5. Each Company wire center has been assigned to a Rate Zone. A table listing all Rate Zone assignments can be found in Part 15, Section 1 (U) of this guidebook. /1/

D. Features /2/

1. Optional Features

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

   Attendant Access
   The customer may choose to have reconfiguration activities performed by the Company. (See Definitions preceding.)

   Database Modification
   Subsequent to the initial installation, the customer may request modification to the database. (See Definitions preceding.) /2/

E. Technical References /3/

Subject	Technical Reference
Ameritech OPTINET Reconfiguration Interface Specifications	AM TR-TMO-000064

The Technical Reference can be obtained from:

APEx Support Team
(734) 523-7348 /3/

/1/ Material formerly appeared on Part 15, Section 3, Sheet 127.
/2/ Material formerly appeared on Part 15, Section 3, Sheet 128.
/3/ Material formerly appeared on Part 15, Section 3, Sheet 129.

9. NETWORK RECONFIGURATION SERVICE (NRS) (Cont'd) /2/

F. PRICES

1. Service Elements

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

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers.
/2/ Material formerly appeared on Part 15, Section 3, Sheet 130. /2/

9. NETWORK RECONFIGURATION SERVICE (NRS) (Cont'd) /2/

F. PRICES (Cont'd)

1. Service Elements (Cont'd)

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

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers. /2/

/2/ Material formerly appeared on Part 15, Section 3, Sheet 131.

9. NETWORK RECONFIGURATION SERVICE (NRS) (Cont'd) /1/

F. Prices (Cont'd)

1. Service Elements (Cont'd)

Description /Billing Code/	Nonrecurring Charge
Optional Features	
Database Modification	
per modification /FN6DC/	$50.00
Attendant Access	
per first 30 minutes (per occurrence) /NRBN1/	55.00
per additional15 minute increments /NRBNA/	10.00
NRS Training	
per hour of additional training /NRBNT/	50.00 /1/

/1/ Material formerly appeared on Part 15, Section 3, Sheet 132.

9. NETWORK RECONFIGURATION SERVICE (NRS) (Cont'd) /2/

F. Prices (Cont'd)

2. Payment Plans

- Month to Month
  Network Reconfiguration Service is available on a month to month basis.

- Term Payment Plans
  Network Reconfiguration Service is available under the Term Payment Plan (TPP) whereby customers must select either a 12, 36 or 60/1/ month period. After the selected Term Payment Plan is satisfied, the monthly rate will apply unless a new TPP is selected. Refer to *Term Payment Plans* in Part 15, Section 1.

- Single Payment Option (SPO)
  A Single Payment Option is available for this service. Refer to *Term Payment Plans - Single Payment Option* in Part 15, Section 1.

3. Termination Charges

Termination Charges will apply to service terminated prior to the contracted period. The termination charge for all TPP terms for Network Reconfiguration Service will be calculated as described in *Term Payment Plans - Termination Charges* in Part 15, Section 1. /2/

4. Credit Allowance /3/

A credit allowance will be given for interruption of service when the outage consists of 30 consecutive minutes, or more, from the time that the Company is notified, or the outage is discovered by the Company, whichever is earlier. Refer to Credit Allowances in Part 15, Section 1 for calculating credit allowances. (Utilize Step 2 "for two-point services" to compute the credit allowance.) Credit allowances for circuits affected by an NRS failure are calculated on a "by circuit" basis according to the type of circuit affected. /3/

/1/ As of October 1, 2013, Term Payment Plan terms greater than 36 months are no longer available for new or renewing subscribers. /2/ /2/
/2/ Material formerly appeared on Part 15, Section 3, Sheet 133.
/3/ Material formerly appeared on Part 15, Section 3, Sheet 134.