

## **1. GIGAMAN® SERVICE**

### **GENERAL**

Additional terms and conditions applicable to Special Access Services may be found in Part 2, Section 2.

- Alternate Wire Center Diversity is not available
- Equipment Plus Alternate Wire Center Path Protection is not available

All rates and charges may be adjusted at a later date.

GigaMAN® service is available at the listed rates in this Guidebook where facilities and operating conditions permit. Where facilities can only be provided as a Special Construction offering, special construction charges as set forth in Part 2, Section 5, on an Individual Case Basis (ICB), will apply.

**1. GIGAMAN® SERVICE****A. BASIC SERVICE DESCRIPTION**

GigaMAN® (Gigabit Metro Area Network) Service is an intraLATA service providing transmission of digital signals at a discrete bit rate of 1 Gigabit per second (Gbps) in Ethernet format (Ethernet IEEE 802.3) between end-user customer premises. GigaMAN® is available in a point to point service configuration.

GigaMAN® service is only available where facilities and operating conditions permit. Where facilities and/or operating conditions do not permit, Special Construction as set forth in Part 2, Section 5, shall apply.

**B. TERMS AND CONDITIONS**

- (1) The customer provided equipment (CPE) must deliver the data signal for the GigaMAN® transport within the industry specification for the subscribed data service.
- (2) GigaMAN® provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals generated by the customer's CPE, for the quality of, or defects in such transmission, for the reception of signals by the customer's CPE, or address signaling to the extent addressing is performed by the customer's CPE. Error detection and correction of data generated by the customer's CPE is the customer's responsibility.
- (3) GigaMAN® is designed to provide connectivity at the discrete bit rate of 1 Gbps.

**1. GIGAMAN® SERVICE (cont'd)**

**B. TERMS AND CONDITIONS (cont'd)**

- (4) GigaMAN® is available on one, two, three or five year Term Pricing Plan (TPP) offerings.
- (5) Out of service adjustments for credit allowances are set forth in Part 2, Section 2 (see 2.3.5.4).
- (6) GigaMAN® is not available in a Meet Point billing configuration as set forth in Part 2, Section 2 (see 2.3.5.7 and 3.2.10).
- (7) Conversion from other services (e.g., Hicap DS1 1,544 Mbps, etc.) are not available with GigaMAN® service.
- (8) Regulations for moves of a GigaMAN® service are set forth in Part 2, Section 2 (see 2.4.12.D.(2)).
- (9) The Minimum period for GigaMAN® service is 12 months.
- (10) GigaMAN® service is not offered with guaranteed throughput thresholds.
- (11) A repeater (circuit regenerator) may be used to extend the transmission of GigaMAN® service. The Company will determine when repeaters are necessary. Repeaters will be located in the Company Serving Wire Center.

**1. GIGAMAN® SERVICE (Cont'd)****C. OPTIONAL FEATURES****(1) Diversity**

GigaMAN® service is offered with Diversity. /<sup>11</sup> Diversity requires two GigaMAN® services purchased by the same customer of record.

The customer premises locations for the two Diverse GigaMAN® services may differ respectively in A to Z locations for the two circuits and both circuits must be served by the same type of Company equipment.

Diversity is only available to GigaMAN® customers with service installed after November 13, 2003. Customers with installations completed prior to November 13, 2003 will not be able to order the Diversity options on their GigaMAN® service. Customers with the service installed prior to November 13, 2003 who request Diversity, would be required to convert their existing service per Part 2, Section 2 (see 2.4.12.,(2)A.).

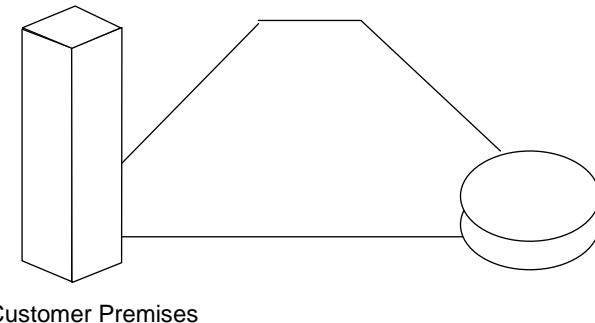
GigaMAN® diversity (including Channel Termination Diversity, Alternate Wire Center Diversity and Inter-Wire Center Diversity) may be configured to be diverse from other eligible Access services as determined by the Company.

/1/ Alternate Wire Center Diversity does not require a second GigaMAN® circuit

**1. GIGAMAN® SERVICE (cont'd)****C. OPTIONAL FEATURES (cont'd)****(1) Diversity (cont'd)****a. Channel Termination Diversity (Local Channel Diversity)<sup>/1/</sup>**

Where facilities and/or operating conditions do not exist, Special Construction charges as set forth in Part 2, Section 5, may apply.

Circuit No.2 Diverse Route

**Channel Termination Diversity (Local Channel Diversity)**

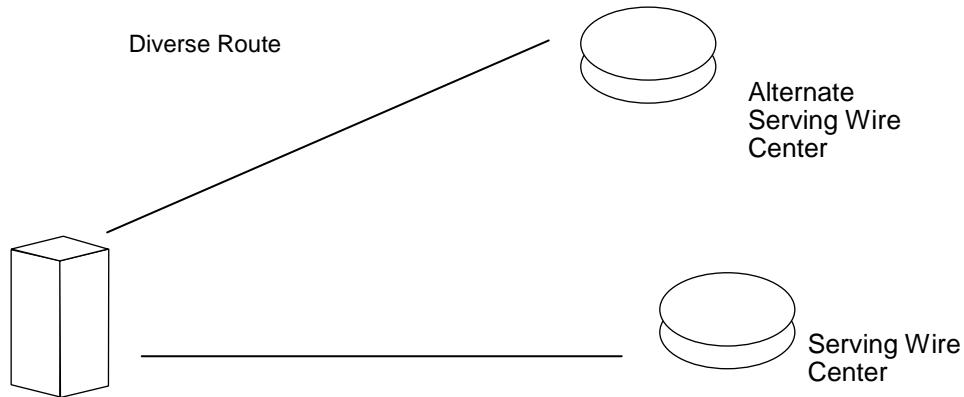
Channel Termination Diversity (Local Channel Diversity) provides for a transmission path between a designated customer premises and the standard Serving Wire Center (SWC) that is diverse from the standard transmission path of the GigaMAN® service. With this arrangement, a Channel Termination will be provisioned over the standard route and another Channel Termination will be provisioned over the diverse route, both utilizing the same Serving Wire Center.

Channel Termination Diversity (Local Channel Diversity) does not provide for full diversity of the GigaMAN® service. It provides diversity from the splice point closest to the customer's property line. Customers requiring full diversity must utilize Special Construction as set forth in Part 2, Section 5.

<sup>/1/</sup> GigaMAN® diversity (including Channel Termination Diversity, Alternate Wire Center Diversity and Inter-Wire Center Diversity) may be configured to be diverse from other eligible Access services as determined by the Company.

**1. GIGAMAN® SERVICE (Cont'd)****C. OPTIONAL FEATURES (cont'd)****(1) Diversity (cont'd)****b. Alternate Wire Center Diversity**

Where facilities and/or operating conditions do not exist, Special Construction charges as set forth in Part 2, Section 5, may apply.

**Alternate Wire Center Diversity**

Alternate Wire Center Diversity is offered on the Channel Termination only and may be applicable to one or both Channel Terminations of a GigaMAN® service.

Alternate Wire Center Diversity provides for a transmission path from the customer's designated premises through a Serving Wire Center that is not the customer's standard Serving Wire Center. The Company will select the closest Alternate Wire Center to the customer's premises.

Alternate Wire Center Diversity does not provide full diversity of the GigaMAN® service. Customers requiring full diversity must utilize Special Construction as set forth in Part 2, Section 5.

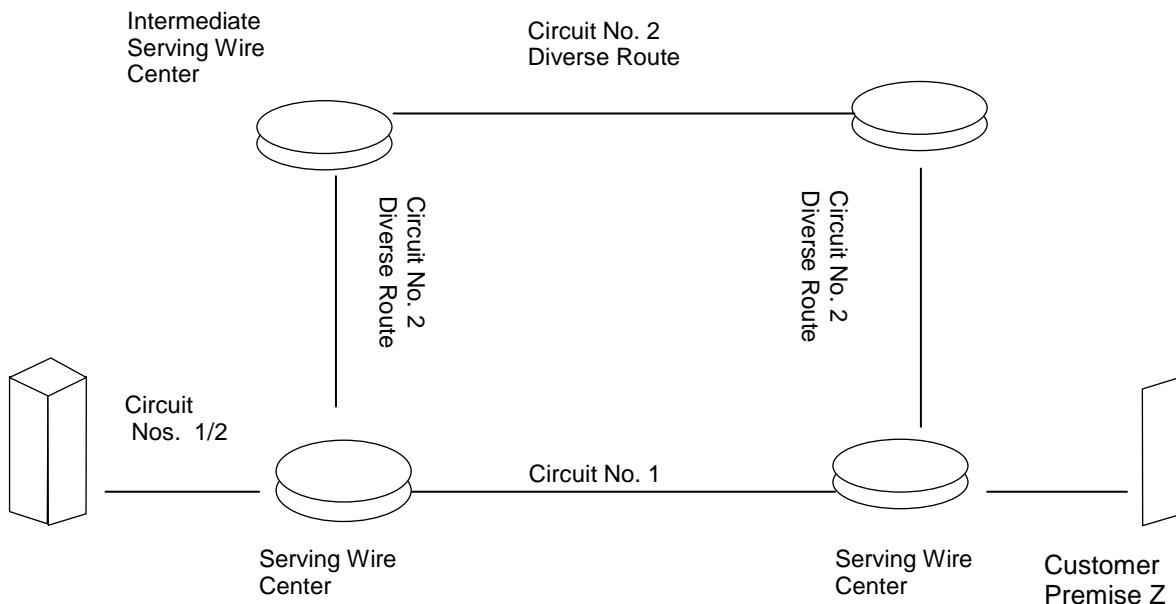
## 1. GIGAMAN® SERVICE (cont'd)

## C. OPTIONAL FEATURES (cont'd)

## (1) Diversity (Cont'd)

c. Inter-Wire Center Diversity<sup>/1/</sup>

Where facilities and/or operating conditions do not exist, Special Construction charges as set forth in Part 2, Section 5, may apply.



## Inter-Wire Center Diversity

Inter-Wire Center Diversity applies to GigaMAN® service that requires more than one Serving Wire Center to provide the transmission path between the customer premises. Inter-Wire Center Diversity provides for a transmission path that is not the standard transmission path between the Serving Wire Centers of a GigaMAN® service.

The Company will select the closest diverse Serving Wire Centers to the customer's premises for the Inter-Wire Center Diversity.

Inter-Wire Center Diversity does not provide for full diversity of the GigaMAN® service. It provides a diverse route between Serving Wire Centers. Customers requiring full diversity must utilize Special Construction as set forth in Part 2, Section 5.

<sup>/1/</sup> GigaMAN® diversity (including Channel Termination Diversity, Alternate Wire Center Diversity and Inter-Wire Center Diversity) may be configured to be diverse from other eligible Access services as determined by the Company.

**1. GIGAMAN® SERVICE (Cont'd)****C. OPTIONAL FEATURES (cont'd)****(2) Protection Options**

Protection options are available to GigaMAN® customers whose orders for GigaMAN® service were completed after January 5, 2004. Customers subscribing to GigaMAN® service prior to January 5, 2004 requesting Protection options must follow the Change rules set forth in Part 2, Section 2 (see 2.4.12).

Protection options are provisioned on the customer's GigaMAN® service and the customer is not required to purchase a second GigaMAN® circuit for Protection options. Protection options are applied on a per GigaMAN® circuit basis only. Protection options provide additional levels of reliability to GigaMAN® service. There are multiple Protection options offered. The options do not need to be the same, but both Channel Terminations of the GigaMAN® service must include some form of protection for the service to be considered protected (except for Power Protection which can be on either one or both ends).

Protection options are available where facilities and/or operating conditions permit. Where facilities and/or operating conditions do not permit, Special Construction charges as set forth in Part 2, Section 5, may apply.

The Company will design the Protection options based upon the configuration of the customer's GigaMAN® service.

Additional repeaters may be necessary on the protected path as determined by the Company as set forth in Part 2, Section 2 (see 2.4.12.(2)B).

**1. GIGAMAN® SERVICE (Cont'd)****C. OPTIONAL FEATURES (cont'd)****(2) Protection Options (cont'd)**

Protection switching in less than 50 milliseconds will occur on GigaMAN® services with Protection options, with the exception of Power Protection which is not Switch protected. Protection options are offered with a Service Level Agreements (SLA) that target a service availability of 99.999%. SLAs are not applicable in the event of a cable cut in any unprotected portion of the GigaMAN® service fiber path or when customer requested modifications to the service requires downtime.

GigaMAN® Protection options are offered as follows:

- Equipment Only Protection - Per Terminating End
- Equipment Plus Fiber Path Protection
  - Equipment Plus Alternate Wire Center Path Protection - Per Terminating End
  - Equipment Plus Channel Termination Path Protection - Per Terminating End
- Inter-Wire Center Path Protection - Per Interoffice Segment
- Power Protection

**1. GIGAMAN® SERVICE (cont'd)****C. OPTIONAL FEATURES (cont'd)**

## (2) Protection Options (cont'd)

## a. Equipment Only Protection – Per Terminating End

Equipment Only Protection offers one GigaMAN® signal routed on two different fiber pairs that co-exist in the same cable and conduit structure that terminate into the same device, but in a separate and distinct module. Protection switching will occur between the modules if necessary.

All protected configurations have one working and one standby path. In the event of a failure of the transmission path, GigaMAN® equipment will switch to a dedicated standby path within 50 milliseconds of detection. In the event of a failure to both fiber transmission paths, an Out Of Service condition will result. This form of protection can only be ordered per Channel Termination for each protected GigaMAN® service.

**1. GIGAMAN® SERVICE (cont'd)****C. OPTIONAL FEATURES (cont'd)****(2) Protection Options (cont'd)****b. Equipment Plus Fiber Path Protection**

Equipment Plus Fiber Path Protection offers varying degrees of path protection for each Channel Termination of the GigaMAN® service, and is offered as follows:

**(i) Equipment Plus Alternate Wire Center Path Protection – Per Terminating End**

Equipment Plus Alternate Wire Center Path Protection offers one GigaMAN® signal Routed over one fiber pair of the protected GigaMAN® service from the customer's premises to the customer's normal Company Serving Wire Center, and a duplicate GigaMAN® signal routed over a diversely routed fiber pair to the Alternate Wire Center selected by the Company.

If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine to accept the engineered path or agree to pay Special Construction charges as set forth in Part 2, Section 5, to provide a completely diverse route where the ten foot allowance is not acceptable to the customer.

This option can be selected for one or both Channel Terminations of the GigaMAN® service.

All protected configurations have one working and one standby path. In the event of a failure of the transmission path, GigaMAN® equipment will switch to a dedicated standby path within 50 milliseconds of detection. In the event of a failure to both fiber transmission paths, an Out of Service condition will result. This form of protection can only be ordered per Channel Termination for each protected GigaMAN® service.

If a customer requests complete protection extending to the Company Serving Wire Center from their premises location when utilizing Equipment Protection Plus Alternate Wire Center Path Protection, they must request diverse entrance facilities into their premises at each end from the nearest Company splice point closest to the customer premises location. This work is subject to Special Construction charges as set forth in Part 2, Section 5.

**1. GIGAMAN® SERVICE (cont'd)****C. OPTIONAL FEATURES (cont'd)**

## (2) Protection Options (cont'd)

## b. Equipment Plus Fiber Path Protection (cont'd)

Equipment Plus Fiber Path Protection offers varying degrees of path protection for each Channel Termination of the GigaMAN® service, and is offered as follows: (cont'd)

## (ii) Equipment Plus Channel Termination Path Protection – Per Terminating End

Equipment Plus Channel Termination Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths to the customer's normal Company Serving Wire Center.

If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine to accept the engineered path or agree to pay Special Construction charges as set forth in Part 2, Section 5, to provide a completely diverse route where the ten foot allowance is not acceptable to the customer.

All protected configurations have one working and one standby path. In the event of a failure of the transmission path, GigaMAN® equipment will switch to a dedicated standby path within 50 milliseconds of detection. In the event of a failure to both fiber transmission paths, an Out of Service condition will result.

This form of protection can only be ordered per Channel Termination for each protected GigaMAN® service, from the customer's premises location, or from the Company manhole/splice point nearest the customer premises, to the Company Serving Wire Center.

If a customer requests complete protection extending to the Company Serving Wire Center from their premises location when utilizing Equipment Protection Plus Channel Termination Path Protection, they must request diverse entrance facilities into their premises at each end from the nearest Company splice point closest to the customer premises location. This work is subject to Special Construction charges as noted above.

**1. GIGAMAN® SERVICE (cont'd)****C. OPTIONAL FEATURES (cont'd)****(2) Protection Options (cont'd)****c. Inter-Wire Center Path Protection – Per Interoffice segment**

Inter-Wire Center Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths, between the two Company Serving Wire Centers or a SWC and an Alternate Wire Center. Path protection starts at the nearest Company manhole outside the Company Serving Wire Center.

If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine to accept the engineered path or agree to pay Special Construction charges as set forth in Part 2, Section 5 to provide a completely diverse route where the ten foot allowance is not acceptable to the customer.

All protected configurations have one working and one standby path. In the event of a failure of the transmission path, GigaMAN® equipment will switch to a dedicated standby path within 50 milliseconds of detection. In the event of a failure to both fiber transmission paths, an Out of Service condition will result.

**d. Power Protection**

Power Protection provides GigaMAN® customers with battery backup for up to eight (8) hours to maintain GigaMAN® equipment in the event of a power failure.

Power Protection is offered on a per rack or per cabinet basis, per customer premises, as determined by the Company. Requests for Power Protection are subject to equipment availability and compatibility. The Company will determine the availability, design and engineering requirements for Power Protection, and the appropriate number of service elements to apply. Power protection is available at either one end or both ends of the GigaMAN® service.

Customers in multi-tenant buildings will require separate equipment and bays dedicated to each customer.

The addition of Power Protection to existing GigaMAN® service may result in temporary service interruption.

Power Protection is not available for installations using the wall mounted cabinet.

Customers are responsible for providing floor space for power equipment as set forth in Part 2, Section 2 (see 2.3.4.3).

**1. GIGAMAN® SERVICE (cont'd)**

**D. TECHNICAL REFERENCES**

Technical specifications are set forth in the following technical references:

Ethernet Standards - SBC TP 76412-000

This publication may be obtained from:

APEx Support Team  
(734) 523-7348

**E. MOVES**

Regulations regarding moves are set forth in Part 2, Section 2 (see 2.4.12).

## 1. GIGAMAN® SERVICE (cont'd)

## F. RATES AND CHARGES

	<u>USOC</u>	Monthly <u>Rate</u>	NonRecurring <u>Charge</u>
(1) Channel Termination			
- 1 Year Plan	LNVX1	\$3,300.00	\$1,500.00
- 2 Year Plan	LNVX2	\$3,100.00	\$1,500.00
- 3 Year Plan	LNVX3	\$2,850.00	\$1,500.00
- 5 Year Plan	LNVX5	\$2,500.00	\$1,500.00
- Monthly Extension	LNVXM	\$3,800.00	None
(2) Channel Mileage			
Mileage Bands			
	<u>USOC</u>	Monthly Rates	
		<u>Fixed</u>	<u>Per Mile</u>
- 1 Year Plan			
O	1L5X1	None	None
Over 0	1L5X1	\$250.00	\$125.00
- 2 Year Plan			
O	1L5X2	None	None
Over 0	1L5X2	\$225.00	\$115.00
- 3 Year Plan			
O	1L5X3	None	None
Over 0	1L5X3	\$200.00	\$100.00
- 5 Year Plan			
O	1L5X5	None	None
Over 0	1L5X5	\$100.00	\$75.00
- Monthly Extension			
O	1L5XX	None	None
Over 0	1L5XX	\$250.00	\$125.00

## 1. GIGAMAN® SERVICE (cont'd)

## F. RATES AND CHARGES (cont'd)

	<u>USOC</u>	<u>Monthly Rate</u>	<u>NonRecurring Charge</u>
(3) Optional Features			
a. Channel Termination Diversity (Local Channel Diversity)			
- 1 Year Plan	CPAL1	\$750.00	None
- 2 Year Plan	CPAL2	750.00	None
- 3 Year Plan	CPAL3	750.00	None
- 5 Year Plan	CPAL5	750.00	None
- Monthly Extension	CPALP	750.00	None
b. Inter-Wire Center Diversity			
- 1 Year Plan	CPAT1	500.00	None
- 2 Year Plan	CPAT2	500.00	None
- 3 Year Plan	CPAT3	500.00	None
- 5 Year Plan	CPAT5	500.00	None
- Monthly Extension	CPATP	500.00	None

## 1. GIGAMAN® SERVICE (cont'd)

## F. RATES AND CHARGES (cont'd)

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(3) Optional Features (cont'd)			
c. Repeater <sup>/1</sup>			
- per GigaMAN Service arranged			
- 1 Year Plan	VU4X1	\$2,400.00	None
- 2 Year Plan	VU4X2	1,700.00	None
- 3 Year Plan	VU4X3	1,150.00	None
- 5 Year Plan	VU4X5	850.00	None
- Monthly Extension	VU4XP	2,500.00	None
d. Equipment Only Protection			
- per terminating end			
- 1 Year Plan	CPAE1	ICB	ICB
- 2 Year Plan	CPAE2	ICB	ICB
- 3 Year Plan	CPAE3	ICB	ICB
- 5 Year Plan	CPAE5	ICB	ICB
- Monthly Extension	CPAEP	ICB	ICB
e. Equipment Plus Channel			
Termination Path Protection			
- per terminating end			
- 1 Year Plan	CPAG1	ICB	ICB
- 2 Year Plan	CPAG2	ICB	ICB
- 3 Year Plan	CPAG3	ICB	ICB
- 5 Year Plan	CPAG5	ICB	ICB
- Monthly Extension	CPAGP	ICB	ICB
f. Inter-Wire Center Path			
Protection			
- per interoffice segment			
- 1 Year Plan	CPAH1	ICB	ICB
- 2 Year Plan	CPAH2	ICB	ICB
- 3 Year Plan	CPAH3	ICB	ICB
- 5 Year Plan	CPAH5	ICB	ICB
- Monthly Extension	CPAHP	ICB	ICB

/1/ Applies to additional Repeaters required to provision the service. Does not apply to the first Repeater designed with the service.

**1. GIGAMAN® SERVICE (cont'd)****F. RATES AND CHARGES (cont'd)**

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(3) Optional Features (cont'd)			
g. Power Protection - per customer premises			
- 1 Year Plan	VBBG1	ICB	ICB
- 2 Year Plan	VBBG2	ICB	ICB
- 3 Year Plan	VBBG3	ICB	ICB
- 5 Year Plan	VBBG5	ICB	ICB
- Monthly Extension	VBBGP	ICB	ICB

## 1. GIGAMAN® SERVICE (cont'd)

## F. RATES AND CHARGES (cont'd)

	<u>USOC</u>	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
(3) Optional Features (cont'd)			
g. Power Protection - per customer premises			
- 1 Year Plan	VBBG1	ICB	ICB
- 2 Year Plan	VBBG2	ICB	ICB
- 3 Year Plan	VBBG3	ICB	ICB
- 5 Year Plan	VBBG5	ICB	ICB
- Monthly Extension	VBBGP	ICB	ICB

G. Migration to AT&T Dedicated Ethernet

(N)

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.

(N)

**2. DECAMAN SERVICE**

**GENERAL**

Additional terms and conditions applicable to Special Access Services may be found in Part 2, Section 2. All of these terms and conditions are applicable to the provisions of service from this Guidebook, unless listed as an exception following:

- Alternate Wire Center Diversity is not available
- Equipment Plus Alternate Wire Center Path Protection is not available

All rates and charges may be adjusted at a later date.

DecaMAN Service is available at the listed rates in this Guidebook where facilities and operating conditions permit. Where facilities can only be provided as a Special Construction offering, special construction charges as set forth in Part 2, Section 5, on an Individual Case Basis (ICB), will apply.

**2. DECAMAN SERVICE (cont'd)****A. SERVICE DESCRIPTION**

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

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

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

WAN PHY	provides a carrier-grade interface capability at a discrete bit rate of 9.95 Gbps (physical layer rate), allowing customers to transport data signals over a SONET infrastructure
LAN PHY	provides a carrier-grade interface capability at a discrete bit rate of 10.3125 Gbps (physical layer rate), allowing customers to interconnect Ethernet LANs

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

**2. DECAMAN SERVICE (cont'd)****B. TERMS AND CONDITIONS**

- (1) The customer provided equipment (CPE) must deliver the data signal for the DecaMAN transport within the industry specification for the subscribed data service.
- (2) DecaMAN provides physical layer transport only. The Company assumes no responsibility for the through transmission of signals generated by the customer's CPE, for the quality of or defects in such transmission, for the reception of signals by the customer's CPE, or address signaling to the extent addressing is performed by the customer's CPE. Error detection and correction of data generated by the customer's CPE is the customer's responsibility.
- (3) DecaMAN is designed to provide connectivity at the discrete bit rate of 9.95 Gbps physical layer rate (WAN PHY) or 10.3125 Gbps physical layer rate (LAN PHY). The service is considered interrupted when the customer reports to the Company and the Company confirms that continuity has been lost.
- (4) DecaMAN is available on one, two, three or five year Term Pricing Plan (TPP) offerings. The minimum period for DecaMAN service is 12 months.
- (5) Out of service adjustments for credit allowances for DecaMAN are set forth in Part 2, Section 2 (see 2.3.5.4).
- (6) DecaMAN is not available in a meet-point billing arrangement involving other Carriers.
- (7) Regulations for moves of a DecaMAN service and conversion from WAN to LAN PHY (or vice versa) are set forth in **F.**, following.
- (8) DecaMAN Service can be distance-limited, based on circuit configuration and signal loss parameters, as determined by the Company. One repeater (signal regenerator) is included in all DecaMAN Service designs. Additional repeaters may be used to extend the transmission of DecaMAN Service, where technically feasible. See Repeater under Standard Features and Rate Regulations following for further definition and charge application.
- (9) DecaMAN Service is provided at the option of the Company where facilities permit. Where facilities and/or operating conditions do not permit, Special Construction charges, as set forth in Part 2, Section 5, shall apply.

**2. DECAMAN SERVICE (cont'd)****C. STANDARD FEATURES**Local Distribution Channel

Defined as the channel between the customer's premises and the serving wire center that provides service to the customer's premises.

Interoffice Channel Mileage (ICM)

Defined as the component of the service between the serving wire centers, consisting of a fixed charge and a per mile charge.

Repeater

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

**D. OPTIONAL FEATURES**

## (1) Diversity Options

The following options are available with Diversity:

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

End-to-end diversity can be achieved by coupling Alternate Wire Center Diversity with Inter-Wire Center Diversity, in those instances where each end of a DecaMAN circuit is served out of different serving wire centers.

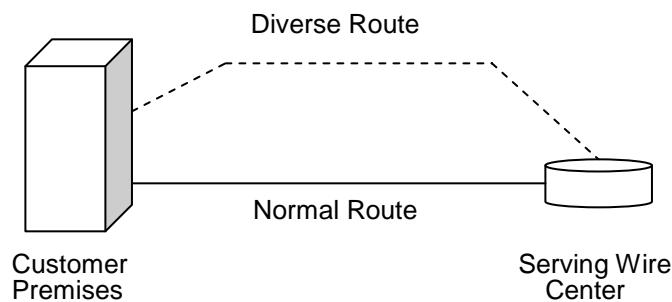
## 2. DECAMAN SERVICE (cont'd)

## D. OPTIONAL FEATURES (cont'd)

## (1) Diversity Options (cont'd)

a. Local Channel Diversity

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



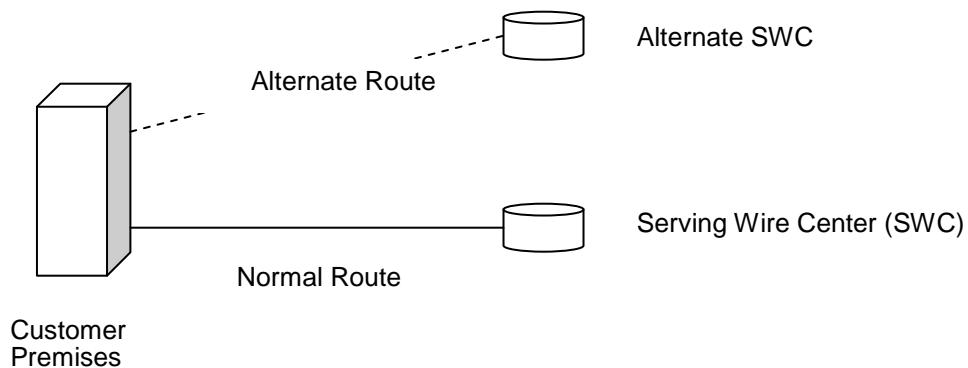
## 2. DECAMAN SERVICE (cont'd)

## D. OPTIONAL FEATURES (cont'd)

## (1) Diversity Options (cont'd)

b. Alternate Wire Center Diversity

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



## 2. DECAMAN SERVICE (cont'd)

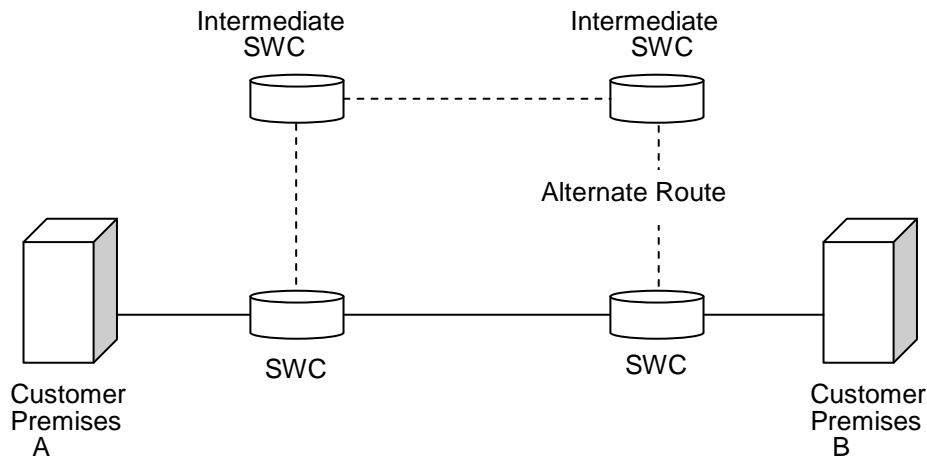
## D. OPTIONAL FEATURES (cont'd)

## (1) Diversity Options (cont'd)

c. Inter-Wire Center Diversity

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

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



**2. DECAMAN SERVICE (cont'd)****D. OPTIONAL FEATURES (cCont'd)****(2) Protection Options**

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
- Power Protection

Protection Options provide additional levels of reliability to DecaMAN Service. All Protection Options utilize NTE at the customer's premises. There are multiple options for Protection at each end of a two point circuit. The options at each end do not need to be the same, but both ends must include some form of Protection for any to be offered. A DecaMAN circuit cannot include Protection at only one end (excluding Power Protection which can be at just one end, or both ends, of the circuit).

**a. Equipment Only Protection**

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

**2. DECAMAN SERVICE (cont'd)****D. OPTIONAL FEATURES (cont'd)**

## (2) Protection Options (cont'd)

## b. Equipment Plus Fiber Path Protection

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

Equipment Plus Fiber Path Protection, with ...

Alternate Wire Center Path Protection

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

Local Channel Path Protection

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

**2. DECAMAN SERVICE (cont'd)****D. OPTIONAL FEATURES (cont'd)**

## (2) Protection Options (cont'd)

c. 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. If an equipment failure or fiber cable cut occurs on one of the inter-office routes, the circuit will be switched to the alternate path in 50 milliseconds or less. Interoffice mileage will be calculated between the intermediate serving wire centers along the circuit paths of both protected fiber pairs.

d. Power Protection

Power Protection provides customers with battery back-up for up to eight (8) hours to maintain DecaMAN equipment in case of a power failure. Power Protection is provided on a per rack or cabinet basis, and customers in a multi-tenant building will require separate equipment and bays dedicated to each customer. Power Protection is not available for installations using a wall mounted cabinet. 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 DecaMAN Service will result in a temporary service interruption.

**2. DECAMAN SERVICE (cont'd)****E. TECHNICAL REFERENCES**

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

The customer interface to DecaMAN Service is as specified in:

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

The Technical References can be obtained from:

APEx Support Team  
734-523-7348

The ANSI publication can be obtained from:

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

The IEEE publication can be obtained from:

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

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS****(1) Term Pricing Plan****a. General Information**

DecaMAN Service is offered under a 1, 2, 3 or 5 year Term Pricing Plan (TPP). For customers that subscribe to a 1, 2, 3 or 5 year TPP, the monthly rates in effect at the time the service is installed will be in effect. If the Company initiates rate changes resulting in a decrease of rates for an existing service with a 1, 2, 3 or 5 year fixed service period, those rate changes will be passed along to the customer. Rate changes resulting in an increase of rates for an existing service will not exceed the original rate for that selected service period unless mandated by the California Public Utilities Commission.

**b. Renewal of Term Pricing Plan**

At the end of a Term Pricing Plan, the customer may renew with a written notice of intent to renew no later than 90 days prior to its expiration, for any TPP in effect without incurring new nonrecurring charges.

If the customer elects not to renew the TPP or does not notify the Company of its intent to renew the TPP, the service will automatically be billed under the Monthly Extension rates in effect at the time the TPP expires until the customer cancels or renews the service with a new TPP term. Subsequently, customers under the Monthly Extension rates may convert their existing service to either a 1, 2, 3 or 5 year TPP. The customer will not be assessed any associated nonrecurring charges as long as the physical serving arrangement does not change.

Monthly Extensions are not available to new service.

**c. Change of Term Pricing Plan**

At any time a customer may change an existing TPP to a new TPP only when the new TPP payment period is longer than the remaining period currently in effect, without any Termination Liability Charges or nonrecurring charges applying as long as all other aspects of the service and facilities remain unchanged. The new TPP begins on the service order completion date and is treated as a new TPP period.

Customers may change to a shorter TPP by paying the associated Termination Liability Charges with the current TPP. The rates that will apply will be the current rates in effect for the TPP ordered on the date of conversion, however, no new nonrecurring charges apply as long as all other aspects of the service and facilities remain unchanged.

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS (cont'd)****(1) Term Pricing Plan (cont'd)****d. Other Changes to Term Pricing Plans**

Any change to a TPP arrangement not otherwise permitted shall constitute a discontinuance of the existing service and all applicable Termination Liability Charges shall apply. The new service will be subject to all applicable rates and charges (e.g., nonrecurring charges, recurring and termination) in effect on the date of the service change.

**e. Termination Liability Charges**

Termination Liability Charges will apply to service terminated prior to the contracted period (excluding those terminated as a result of renegotiations) and shall be calculated as follows:

- Any unpaid Special Construction or nonrecurring charges (excluding any waived charges); plus
- Fifty percent (50%) of all recurring charges for the remaining months of the customer's term

**(2) Interoffice Channel Mileage**

Interoffice channel mileage is calculated using the V and H coordinate method. Interoffice Channel Mileage charges are applicable on both paths of the DecaMAN Service when any of the Diversity or Protection Options are ordered.

**(3) Repeater**

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).

Additional repeaters may be required on the diverse or alternately routed path when Diversity or Protection options are ordered by the customer. The need for repeaters on the diverse or protected path will be determined by the Company. Additional charges will apply.

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS (cont'd)****(4) Diversity and Protection Options**

Diversity and Protection Options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. In addition to charges for the various Diversity and Protection Options, normal charges for the Local Distribution Channel and Interoffice Channel Mileage will apply.

Additional repeaters may be required on the diverse or alternately routed path when Diversity or Protection options are ordered by the customer. The need for repeaters on the diverse or protected path will be determined by the Company. Additional charges will apply.

Interoffice Channel Mileage charges are applicable on both paths of the DecaMAN Service when any of the Diversity or Protection Options are ordered.

**(5) Protection Options Changes**

If Protection Options are later added to an existing DecaMAN circuit, a temporary service interruption will result as the new protected circuit must be re-designed and re-installed. 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).

Termination Liability Charges for the existing circuit will not apply, 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. Standard nonrecurring charges to install the newly protected DecaMAN Service will apply. (The conditions described here do not apply to Power Protection added to an existing DecaMAN circuit).
- Negotiated down time will apply, as the new circuit will need to be designed and installed.
- The term of the new contract must be equal to or greater than the remaining time left on the existing DecaMAN contract. (The conditions described here do not apply to Power Protection added to an existing DecaMAN circuit).
- Addition of Protection Options are contingent on availability of equipment and fiber facilities from premises to premises. Other Special Construction charges, as necessary, may apply.

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS (cont'd)****(6) LAN PHY and WAN PHY Conversions**

Customers will be permitted to convert DecaMAN Service from a WAN PHY to LAN PHY interface, or vice versa, without incurring Termination Charges, given the following conditions are met:

- The customer must issue a disconnect order for the existing interface and place a new service order for DecaMAN Service using the new interface. Termination Liability Charges for the existing interface will be waived. Standard nonrecurring charges to install DecaMAN Service as a new circuit (using the new interface chosen) will apply.
- Negotiated down time will apply, as the new circuit will need to be designed and installed.
- The term of the new contract must be equal to or greater than the remaining time left on the existing DecaMAN contract.
- Conversions are contingent on availability of equipment, and a determination by the Company that such conversion is technically feasible. Other Special Construction charges, as necessary, may apply.

**(7) Moves**

Customers will be permitted to move one end of a DecaMAN Service to another location, without incurring Termination Charges, given the following conditions are met:

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

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS (cont'd)****(8) Upgrades**

Customers will be permitted to upgrade to a higher-speed service provided by the Company, without incurring Termination Liability Charges, given the following conditions are met:

- an upgrade is considered an increase in speed or capacity when comparing DecaMAN Service to the new service.
- the customer must issue a disconnect order for the existing DecaMAN Service and place a service order for the new, higher-speed service, such that there is no more than 90 days overlap in service.
- the same customer locations must be utilized for the new, higher-speed service.
- the expiration date for the new, higher-speed service is beyond the end of the original TPP term associated with the existing DecaMAN Service.
- the existing DecaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing DecaMAN Service with 1-year contracts will not be eligible for this Upgrade option.

**2. DECAMAN SERVICE (cont'd)****F. RATE TERMS (cont'd)****(8) Upgrades**

Customers will be permitted to upgrade to a higher-speed service provided by the Company, without incurring Termination Liability Charges, given the following conditions are met:

- an upgrade is considered an increase in speed or capacity when comparing DecaMAN Service to the new service.
- the customer must issue a disconnect order for the existing DecaMAN Service and place a service order for the new, higher-speed service, such that there is no more than 90 days overlap in service.
- the same customer locations must be utilized for the new, higher-speed service.
- the expiration date for the new, higher-speed service is beyond the end of the original TPP term associated with the existing DecaMAN Service.
- the existing DecaMAN Service must have been in service for a minimum period of 12 months for a 2-year contract, 15 months for a 3-year contract or 18 months for a 5-year contract. Existing DecaMAN Service with 1-year contracts will not be eligible for this Upgrade option.

**Migration to AT&T Dedicated Ethernet**

(N)

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

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

(N)

## 2. DECAMAN SERVICE (cont'd)

## G. RATES AND CHARGES

## (1) Standard Features

	<u>USOC</u> <u>CABS/CRIS</u>	<u>Monthly</u> <u>Rate</u>	<u>Nonrecurring</u> <u>Charge</u>
a. Local Distribution Channel			
LAN-PHY			
1 Year Plan	TMECS/1RSTX	ICB	ICB
2 Year Plan	TMECS/1RSTX	ICB	ICB
3 Year Plan	TMECS/1RSTX	ICB	ICB <sup>/1</sup>
5 Year Plan	TMECS/1RSTX	ICB	ICB <sup>/1</sup>
Monthly Extension	TMECS/1RSTX	ICB	ICB
WAN-PHY			
1 Year Plan	TMECS/1RSTX	ICB	ICB
2 Year Plan	TMECS/1RSTX	ICB	ICB
3 Year Plan	TMECS/1RSTX	ICB	ICB <sup>/1</sup>
5 Year Plan	TMECS/1RSTX	ICB	ICB <sup>/1</sup>
Monthly Extension	TMECS/1RSTX	ICB	ICB
b. Interoffice Channel Mileage			
Monthly Rates			
	<u>Fixed</u>	<u>Per Mile</u>	
1 Year Plan	1L5XX/JZ68S	ICB	ICB
2 Year Plan	1L5XX/JZ68S	ICB	ICB
3 Year Plan	1L5XX/JZ68S	ICB	ICB
5 Year Plan	1L5XX/JZ68S	ICB	ICB
Monthly Extension	1L5XX/JZ68S	ICB	ICB
c. Repeater <sup>/2</sup>			
- each			
Monthly Rates			
	<u>Rate</u>	<u>Nonrecurring</u> <u>Charge</u>	
1 Year Plan	VU4/VU4	ICB	ICB
2 Year Plan	VU4/VU4	ICB	ICB
3 Year Plan	VU4/VU4	ICB	ICB
5 Year Plan	VU4/VU4	ICB	ICB
Monthly Extension	VU4/VU4	ICB	ICB

/1/ Nonrecurring charges are not applicable for new service installed under the 3 or 5 year TPP.

/2/ Applies to additional Repeaters required to provision the service. Does not apply to the first Repeater designed with the service.

## 2. DECAMAN SERVICE (cont'd)

## G. RATES AND CHARGES (cont'd)

## (2) Optional Features

	<u>USOC</u> <u>CABS/CRIS</u>	<u>Monthly</u> <u>Rate</u>	<u>Nonrecurring</u> <u>Charge</u>
a. Diversity Options			
Local Channel Diversity			
- per terminating end			
1 Year Plan	CPALX/CPALX	ICB	ICB
2 Year Plan	CPALX/CPALX	ICB	ICB
3 Year Plan	CPALX/CPALX	ICB	ICB
5 Year Plan	CPALX/CPALX	ICB	ICB
Monthly Extension	CPALX/CPALX	ICB	ICB
Inter-Wire Center Diversity			
- per circuit			
1 Year Plan	CPATX/CPATX	ICB	ICB
2 Year Plan	CPATX/CPATX	ICB	ICB
3 Year Plan	CPATX/CPATX	ICB	ICB
5 Year Plan	CPATX/CPATX	ICB	ICB
Monthly Extension	CPATX/CPATX	ICB	ICB
b. Protection Options			
Equipment Only Protection			
- per terminating end			
1 Year Plan	CPAEX/CPAEX	ICB	ICB
2 Year Plan	CPAEX/CPAEX	ICB	ICB
3 Year Plan	CPAEX/CPAEX	ICB	ICB
5 Year Plan	CPAEX/CPAEX	ICB	ICB
Monthly Extension	CPAEX/CPAEX	ICB	ICB
Equipment Plus Channel Termination Path Protection			
- per terminating end			
1 Year Plan	CPAGX/CPAGX	ICB	ICB
2 Year Plan	CPAGX/CPAGX	ICB	ICB
3 Year Plan	CPAGX/CPAGX	ICB	ICB
5 Year Plan	CPAGX/CPAGX	ICB	ICB
Monthly Extension	CPAGX/CPAGX	ICB	ICB

## 2. DECAMAN SERVICE (cont'd)

## G. RATES AND CHARGES (cont'd)

## (2) Optional Features (cont'd)

	<u>USOC</u> <u>CABS/CRIS</u>	<u>Monthly</u> <u>Rate</u>	<u>Nonrecurring</u> <u>Charge</u>
b. Protection Options (cont'd)			
Inter-Wire Center Path Protection - per interoffice segment			
1 Year Plan	CPAHX/CPAHX	ICB	ICB
2 Year Plan	CPAHX/CPAHX	ICB	ICB
3 Year Plan	CPAHX/CPAHX	ICB	ICB
5 Year Plan	CPAHX/CPAHX	ICB	ICB
Monthly Extension	CPAHX/CPAHX	ICB	ICB
Power Protection - per customer premises			
1 Year Plan	VBBGX/VBBGX	ICB	ICB
2 Year Plan	VBBGX/VBBGX	ICB	ICB
3 Year Plan	VBBGX/VBBGX	ICB	ICB
5 Year Plan	VBBGX/VBBGX	ICB	ICB
Monthly Extension	VBBGX/VBBGX	ICB	ICB