

AT&T INTERSTATE ACCESS GUIDEBOOK

PART 10 - Special Access Services - East
SECTION 27 - OPT-E-MAN^(R)

2nd Revised Sheet 1
Cancels 1st Revised Sheet 1

27. Optical Ethernet Metropolitan Area Network (OPT-E-MAN[®])

27.1 Service Description

(A) Service Description

OPT-E-MAN[®] Service offers networking capabilities utilizing Optical Ethernet, which is the use of Ethernet LAN packets running over optical fiber within or as access to a service provider's network. OPT-E-MAN[®] provides an integrated service consisting of fiber and/or copper transport (at the Telephone Company's discretion) connected to an Ethernet device capable of switching. OPT-E-MAN[®] provides dedicated bandwidth ranging from 2 Mbps up to 1 Gbps. Customers may connect to the service using a router, bridge or switch. Customers that are connecting to OPT-E-MAN[®] service in the Telephone Company's Central Office must follow the terms and conditions as stated in Section 18 of Tariff F.C.C. No. 39.

OPT-E-MAN[®] supports a logical point-to-point, point to multi-point or multi-point to multi-point configuration and enables the customer to connect two or more locations together when utilizing a point-to-point or point-to-multipoint configuration, and a minimum of three or more locations when utilizing a multipoint-to-multipoint configuration ⁽¹⁾ within the same LATA or Metropolitan Area Network (MAN) as if they were segments on the same LAN. OPT-E-MAN[®] Service supports full duplex communication.

OPT-E-MAN[®] Service will is available in the Connecticut LATA 920. To the extent a customer would like to purchase OPT-E-MAN[®] Service where the necessary facilities to provide OPT-E-MAN[®] Service have not been deployed, the customer can request special construction for this service in accordance with this Guidebook. (T)

OPT-E-MAN[®] Service provides the customer the capability to connect to the Telephone Company's network via one of the following standard network interfaces as described in Section 27.1(B) and (D):

- (i) 10/100 Mbps Base T
- (ii) 1 Gbps Ethernet (1000 Base SX, 1000 Base LX/LH or 1000 Base ZX)

OPT-E-MAN[®] includes the port and connection to the Ethernet network, Committed Information Rate (CIR) (Bandwidth assessed per speed increments ranging from 2 Mbps to 1 Gbps) and the Ethernet Virtual Connections (EVC).

⁽¹⁾ This condition only applies to service ordered or purchased after 08/31/07.

OPT-E-MAN[®] will be offered as follows:

Basic Connection: The OPT-E-MAN[®] Basic Connection provides the customer a switched, logical point-to-point connection and point to multipoint connection between the customer locations using a physical connection to the Ethernet network, and virtual connections through the Ethernet network.

Basic Plus Connection: The OPT-E-MAN[®] Basic Plus Connection provides the customer with a switched, logical point-to-point, point to multi-point, and/or multi-point to multi-point connection between the customer locations using a physical connection to the Ethernet network, and virtual connections through the Ethernet network.

Committed Information Rate (CIR): The customer must select CIR and at least one EVC to enable service.

CIR usage will have the following Grades of Service selection:

Best Effort: Intended for non-critical data applications with more tolerance for delay and/or data applications that are lower in priority, i.e. LAN traffic. There are no service parameters associated with this Grade of Service. (N)

Best Effort Grade of Service is intended for non-critical applications. Standard Telephone Company procedures will be used to provision and maintain the service. No specific performance assurances are provided in connection with the Best Effort Grade of Service. (N)

Bronze: Intended for data applications with more tolerance for delay and/or data applications that are lower in priority, i.e. LAN traffic. Service parameters associated with this Grade of Service are PDR and Latency. Latency is defined as the amount of time necessary for a typical frame to traverse the Ethernet network. Latency is measured by averaging sample measurements taken during a calendar month from Network Terminating Equipment (NTE) to NTE to which the customer ports are attached and is measured when the network is available for use by the customer.

Silver: Supports applications that require minimal loss and low latency variation (jitter). The service parameters associated with this Grade of Service are PDR, Latency and Jitter. Jitter is calculated as the delay variance of the packets transported across the network or the delta between two consecutive packets and is measured when the network is available for use by the customer.

(B) Service Provisioning

(1) Manner of Provisioning

- (a) Access into the Telephone Company's network must conform to industry standards and specifications as described in technical publications TP-76200MP and SBC-TP-76412-000.
- (b) The Telephone Company will provision up to and including the Network Terminating Equipment (NTE), which is on the Telephone Company's side of the demarcation point.
- (c) NTE installed by the Telephone Company on the customer's premises shall remain the property of the Telephone Company. The customer or user may not rearrange, disconnect, remove, attempt to repair, remote test or interface with any network equipment installed by the Telephone Company without prior written consent of the Telephone Company.
- (d) The customer shall be responsible for obtaining permission for the Telephone Company's agents or employees to enter the customer's premises at a mutually agreed upon time for the purpose of installing, inspecting, repairing, or removing (upon termination of the service) the equipment of the Telephone Company.

(2) Limitations

- (a) OPT-E-MAN[®] is only available within the same Local Access Transport Areas (LATAs).
- (b) The Telephone Company shall not be responsible for error correction. Error correction is the responsibility of the customer's OPT-E-MAN[®] compatible CPE.

-
- (c) The selected CIR bandwidth usage may not exceed the physical bandwidth/speed of that port. If a customer orders 1 Gbps of CIR on a single port, the Telephone company reserves the right to use up to 10% of bandwidth for traffic management.
 - (d) OPT-E-MAN[®] does not allow for oversubscription. The total bandwidth (speed sum of the EVCS) on a single port cannot exceed the selected CIR of that port.
 - (e) The Telephone Company shall not be responsible for installation, operation, maintenance, or adapting OPT-E-MAN[®] to the technological requirements of any specific CPE.
 - (f) If a customer connects to the Ethernet network using a bridge or switch, only 50 MAC addresses will be initially available per port. Additional addresses may be purchased in blocks of 50 at an additional charge, with a limit of 100 MAC addresses total per port. The rates are described in Section 27.2(D) Rates and Charges.
 - (g) OPT-E-MAN[®] service requiring a cross connect in a Telephone Company central office is only available with a 1 Gbps connection.
 - (h) Data exiting the network through the customer port or ports is excluded from SLA calculations to the extent that it exceeds the CIR for those ports.
 - (i) The Telephone Company will use controls to limit the amount of multicast and broadcast traffic to protect the OPT-E-MAN[®] network against traffic storms. The maximum throughput of multicast traffic will be set at 1 Mbps per customer port for multipoint-to-multipoint service. There is no restriction on point-to-point or point-to-multipoint multicast traffic. The maximum throughput of broadcast traffic will be set at 200 packets per second per port for multipoint-to-multipoint service and 10 Mbps per port for point-to-point and point-to-multipoint service. Packets dropped by traffic controls will be excluded from SLA calculations. The Telephone Company recommends that customers enable controls for multicast, broadcast, and unknown unicast traffic within the customer network(s).

(3) Customer Interface Options

Interface	Handoff	Bandwidth Limit	Distance Limit
10/100 Mbps Base T	Copper	100 Mbps	100 M
1000 Base SX	Fiber	1 Gbps	550 M
1000 Base LX/LH	Fiber	1 Gbps	550 M- 10Km
1000 Base ZX	Fiber	1 Gbps	70 Km

(C) Service Level Agreements (SLAs)

The Telephone Company is committed to maintain Network Availability of 99.95% per month, including the local loop which equates to less than 21.6 minutes of downtime per month, excluding maintenance windows.

Network Availability is calculated as the percentage of time that the Ethernet network is capable of accepting and delivering customer data during the measurement period. The calculation for Network Availability for a given month is as follows:

Network Availability = (24 hours x days in month x 60 x number of customer sites - network outage time)/(24 hours x days in month x 60 x number of customer sites)

The Telephone Company will meet the Network Availability, given the following terms and conditions:

- (i) The customer must notify the Telephone Company when the service parameters within the calendar month fall below (or above) the committed level.
- (ii) The customer must request a service credit within 45 days after the end of the month when the failure occurred.

(iii) Upon verification by the Company that the actual service performance for that parameter was less than the committed level, the customer will be provided a service credit equal to 10% of the monthly recurring charge for that service parameter for all affected ports.

(1) Grade of Service Guarantees

Grade of Service guarantees will exist for OPT-E-MAN[®] Service if the Telephone Company fails to meet service parameters, such as Latency, PDR and Jitter, defined for each Grade of Service, given the following terms and conditions:

- (i) The customer must notify the Telephone Company when the service parameters within the calendar month fall below (or above) the committed level.
- (ii) The customer must request a service credit within 45 days after the end of the month when the failure occurred.
- (iii) Upon verification by the Company that the actual service performance for that parameter was less than the committed level, the Telephone Company has one month to correct the problem.
- (iv) If after one month, the service performance for that parameter is still less than the committed level, the customer will be provided a service credit equal to 25% of the monthly recurring charge for that service parameter for all affected ports.

(a) Packet Delivery Rate (PDR) Guarantee

The PDR guarantee is a percentage of total traffic from source Network Terminating Equipment (NTE) to the destination NTE to which the customer port is attached.

Bronze PDR = 99.5%
Silver PDR = 99.9%

Packet delivery is measured by averaging sample measurements taken during a calendar month from NTE to NTE to which the customer ports are attached when the OPT-E-MAN[®] network is available for use by the customer.

(b) Latency

The Telephone Company is committed to maintain delay across the Telephone Company's network at no more than a 18-27 ms (36-54 ms roundtrip) depending on grade of service for packets 1500 bytes or less.

Bronze Latency = 27 ms one way (70ms roundtrip)
Silver Latency = 18 ms one way (50ms roundtrip)
Best Effort = Not Available

(N)

Latency is measured by averaging sample measurements taken during a calendar month between NTE to which the customer ports are attached when the OPT-E-MAN[®] network is available for use by the customer.

(c) Jitter

Applicable only to the Silver Grade of Service, OPT-E-MAN[®] is committed to maintain a jitter of less than 12 ms one-way end-to-end (including the local loop) within the Telephone Company's Ethernet network.

Jitter is measured by averaging sample measurements taken during a calendar month between NTE to which the customer ports are attached when the OPT-E-MAN[®] network is available for use by the customer.

(2) Allowance for Service Interruptions

The allowance for service interruption will apply as specified in Part 2, Section 2 of this Guidebook.

(T)

(a) When A Credit Allowance Does Not Apply

No credit allowance will be made for:

- (i) Interruptions caused by the negligence of the Customer;
- (ii) Interruptions of a service due to the failure of equipment or systems provided by the Customer or parties other than the Telephone Company;
- (iii) Interruptions of a service during any period in which the Telephone Company is not afforded access to the premises where the service is terminated;
- (iv) Interruptions of a service when the Customer has released that service to the Telephone Company for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the Customer prior to the release of that service;
- (v) No credit allowances will apply during a Telephone Company work stoppage;
- (vi) No credit allowance due to governmental orders, civil commotions, criminal actions taken against the Telephone Company, acts of God and other circumstances beyond the Telephone Company's reasonable control.

(3) SLA Conditions

- (a) SLAs will be offered at no charge to all customers with term agreements of 1 year or more. Month-to-month customers will continue to receive credits as described in Part 2, Section 2 of this Guidebook.
- (b) SLAs will apply to all connection types
- (c) SLA credits will not exceed full monthly charges for affected network elements.

(T)

(4) SLA Exclusions

The Telephone Company will be excluded from providing any Service Level Agreement credits should any of the following conditions occur:

- (a) Force major 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. Loss or damage resulting from any cause beyond the Telephone Company's reasonable control such as acts of war, civil disturbances, acts of civil or military authorities or public enemy.
- (b) All SLAs are guaranteed end-to-end (hand-off at the customer demarcation to hand-off at the customer demarcation, including the local loop). The failures of any components beyond the demarcation point are excluded from SLA calculation.
- (c) Data Loss during the Telephone Company's schedule maintenance window.
- (d) Data exceeding subscribed CIR.
- (e) Failures attributed to facilities or equipment provided by customer or its contractors, equipment vendors, another local exchange carrier or inter-exchange carrier.

(D) OPT-E-MAN[®] Configuration

The customer must order OPT-E-MAN[®] service via an OPT-E-MAN[®] standard interface as described in the following:

- (i) 10/100 Mbps Base T - a copper handoff with a bandwidth limitation of 100 Mbps.
- (ii) 1 Gbps Ethernet (1000 Base SX, 1000 Base LX/LH or 1000 Base ZX)- a fiber handoff with a bandwidth limitation of 1 Gbps.

The customer must select a Port Committed Information Rate (CIR) and one (1) Ethernet Virtual Connection (EVC) with specified CIR to enable service. The EVC/CIR has the option of utilizing a portion of the PORT CIR or the entire PORT CIR. The bandwidth usage (CIR) selected by the customer must be in service for at least 30 days before an increase or decrease in the bandwidth can be requested.

The customer will have the option to order Bronze or Silver Grades of Service.

Network Terminating Equipment (NTE) will be placed at the customer's premises or Telephone Company central office as part of the OPT-E-MAN[®] Service

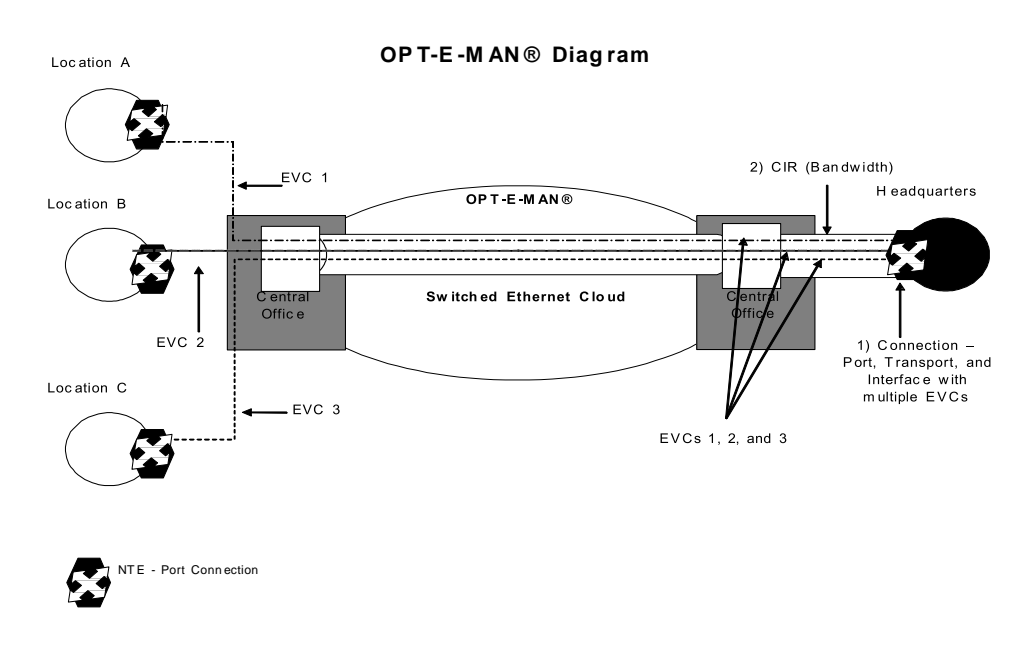
- (iii) A total of 8 EVCs may be configured per Basic 10/100 Mbps port.
- (iv) A total of 64 EVCs may be configured per Basic 1 Gbps port.
- (v) A total of 7 EVCs may be configured per Basic Plus 10/100 Mbps port.
- (vi) A total of 63 EVCs may be configured per Basic Plus 1 Gbps port.

When EVCs are ordered, the customer must designate the portion of the CIR bandwidth assigned to each EVC. The CIR bandwidth for the EVCs range from 2 Mbps to 1000 Mbps in 1 Mbps increments, EVC's will be prioritized as Bronze or Silver. The originating and terminating ports must both have a CIR with Silver GoS for the EVC between the two ports to be prioritized with a Silver GoS. For point-to-point and point-to-multipoint connections, EVCs can be set in 1 Mbps increments from 2 Mbps to 600 Mbps.⁽¹⁾ For multipoint-to-multipoint connections, EVCs can be set in 1 Mbps increments from 2 Mbps to 1 Gbps.

The aggregate assigned Committed Information Rate (CIR) across all Ethernet Virtual Connections (EVCs) between any two customer connections cannot exceed 600 Mbps per Basic or Basic Plus Connection.

The customer EVC order will designate the GoS of the CIR assigned connection and may not be higher than the GoS CIR assigned to any of the connecting ports.⁽²⁾

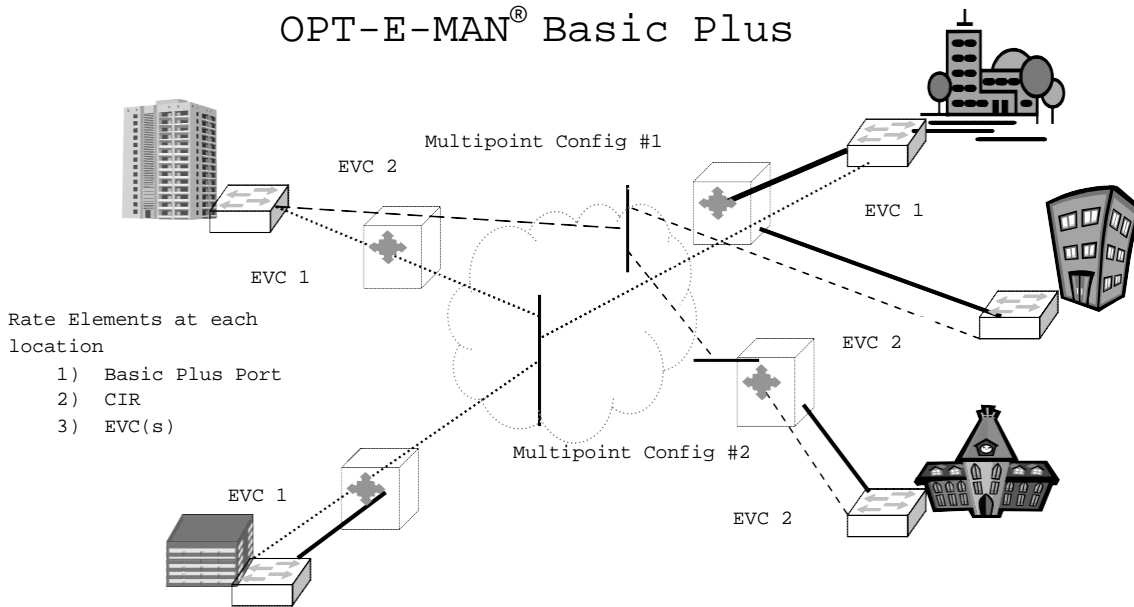
An EVC must be in service for at least 30 days before any changes can be requested.



⁽¹⁾ Effective 08/31/07, 1000 Mbps EVCs for point-to-point and point-to-multipoint are limited to existing customers at existing locations.

⁽²⁾ This condition only applies to service ordered or purchased after 08/31/07.

OPT-E-MAN[®] Basic Plus



The service above has a port at each location (Basic Plus). Each Basic Plus port has a Committed Information Rate (CIR) that must be equal to or greater than the sum of the Ethernet Virtual Connections (EVCs) on that port. Basic Plus service can facilitate Point to Point, Point to Multipoint, or Multipoint to Multipoint as shown above. EVC1 and EVC2 represents Basic Plus Multipoint to Multipoint configurations, illustrating that each port in a multipoint configuration can transmit traffic to all other locations on the same multipoint configuration. Point to Point is a dedicated connection between two ports. Point to Multipoint is multiple point to point connections between several different ports. Multipoint to Multipoint is a connection between multiple designated ports on the OPT-E-MAN[®] network.

(E) Responsibility of the Customer

The customer is responsible for providing the compatible CPE to be used for the connection to the OPT-E-MAN[®] Service. The Customer is responsible for notifying the Telephone Company of any interruption in service.

(F) Rate Elements

- (1) Connection- The OPT-E-MAN[®] connection rate elements are assessed per interface at 10/100 Mbps or 1 Gbps Ethernet. The OPT-E-MANsm connection rate element includes the physical connection from the Customer demarc to the Ethernet network.
- (2) Committed Information Rate (CIR) is bandwidth assessed per speed increments ranging from 2 Mbps to 1 Gbps and is available in Bronze and Silver Grade of Service. OPT-E-MAN[®] Best Effort service is available in CIR speeds of 2, 4 and 8 Mbps. (C)
(N)
(N)
(N)
- (3) Ethernet Virtual Connections (EVC)- EVCs must be ordered in increments between 2-600 Mbps (point-to-point and point-to-multi-point) or 2-1000 Mbps (multi-point to multi-point), not to exceed the CIR bandwidth ordered per connected port. CIR per EVC may be set in 1 Mbps increments. (C)
(C)
(C)
- (4) Nonrecurring Charges- one-time charges that apply for specific work activity related to the provisioning of OPT-E-MAN[®] Service, as described in Section 27.2.
- (5) Recurring Charges- Recurring charges are rates that apply each month or fraction thereof that the service is provided. Recurring rates apply to 12, 24, 36, or 60-month period under the terms and conditions of Term Pricing Plan (TPP), discussed in 27.1(H).
- (6) Month to Month Rates- Upon completion of a TPP, a customer's service will automatically convert to the Month-to-Month Rates unless the customer requests a new TPP.

(G) Optional Features

- (1) Repeater-(Circuit Regenerators) provide essential detection and retransmission of Ethernet signals. Repeaters will only be provided as required by the Telephone Company when actual fiber facility distance between customer designated premises and/or central office locations exceed design limits (as specified in technical publication SBC-TP-76412-000). Repeaters will be located exclusively in Telephone Company central offices.
- (2) Additional MAC Addresses- If a customer connects to the Ethernet network using a bridge or switch for Layer 2 connectivity, only 50 MAC addresses will be initially available per port. 50 additional addresses may be purchased at an additional charge, with a limit of 100 MAC addresses total per port.

(H) Term Pricing Plan⁽¹⁾

(N)

The OPT-E-MAN[®] Term Payment Plan (TPP) is a term plan that allows a customer to purchase OPT-E-MAN[®] Service over a 1, 2, 3, or 5, year period. During the term of the selected TPP, Telephone Company initiated recurring rate changes (increases or decreases) will automatically be applied to the monthly payments for the remaining months of the current TPP term however, the monthly recurring rate during the TPP term will never exceed the initial TPP rate. The TPP rates can be found in 27.2, following. The customer must commit to at least a 12 month TPP to qualify for the service.

The Administrative Charge is a non-recurring charge that applies for each Access Order. The Administrative Charge will be waived for all orders requesting new service. Administrative Charges for OPT-E-MAN[®] are set forth in 27.2(D), following.

(I) Moves

Moves involve a change in the physical location of one of the following:

- (i) Service rearrangement;
- (ii) Point of Termination at the customer's premises; or
- (iii) Customer's premises.

Move charges are dependent upon the type of move requested by the customer.

(1) Service Rearrangement

Service rearrangements are changes to existing (installed) services, which do not result in a change in the minimum period requirements, as set forth in Part 2, Section 5 of this Guidebook.

(2) Moves Within the Same Building

When the move is to a new location within the same building, the Administration charge, all associated non-recurring charges, and Customer Connection charge for the service termination affected will apply. There will be no change in the minimum period requirements, as described in Part 2, Section 5 of this Guidebook.

(3) Moves to a Different Building

- (a) The customer may move one OPT-E-MAN[®] location to another location in the same LATA and maintain the existing TPP term at the new location, or establish a new TPP equal to or greater than the remaining time left at the old location without assessment of early Termination Liability charges. No lapse in billing can occur. The customer's request for the disconnect at the existing location and the request for the Add at the new location must refer to each other and be issued at the same time.
- (b) When the move is to a new location which is served out of a different serving wire center, the Administration charge, all associated non-recurring charges, and a new Customer Connection charge for the service will apply. There will be no change in the minimum period requirements.
- (c) For all other moves to a different building and/or moves at more than one location, the customer will be liable for termination charges and will be treated as a discontinuance; therefore, start of service, all associated nonrecurring charges, and new minimum period requirements, as described in Part 2, Section 5 of this Guidebook, will apply.

⁽¹⁾ All term plans for OPT-E-MAN[®] Service which are established after November 9, 2013, for term lengths which are scheduled to expire at any time after October 1, 2018, will instead expire on October 1, 2018. All such services existing on or after October 1, 2018, will be provided on a month-to-month basis at the applicable, then current month-to-month rates.

(N)

(N)

(J) Expiration of OPT-E-MAN[®] TPP term options

The OPT-E-MAN[®] TPP is not available for renewal. At the expiration of the TPP term, the customer may select a new TPP term at the prevailing rates. If a customer does not wish to purchase a new OPT-E-MAN[®] TPP at the expiration of the term, the customer's service will automatically convert to the prevailing month-to-month rates. The Telephone Company must receive written notice 45 days prior to termination.

(K) Termination Liability

Termination liability charges will apply in the following cases:

In the event service (which consists of a Basic or Basic Plus Connection and a designated CIR) is terminated prior to the end of the TPP term, a termination charge utilizing the following termination percentage will apply:

Termination Billing Period Percentage: 50%

The monthly recurring rates exclude EVC(s) and additional MAC address charges.

The termination charge is calculated as follows:

(Monthly recurring rates, e.g. Basic Plus Connection 10/100 Mbps 1 Year \$660 + Bronze 10 Mbps CIR \$550 = \$1210) X (Months remaining in TPP term) X (Termination Billing Period Percentage)

Example: A customer with \$1210.00 in monthly rates terminates service with ten (10) months remaining in a three year TPP term.

The termination liability charge would be calculated as follows:
 $(\$1210.00) \times (10) \times (.50) = \$6,050.00$

- (L) Termination Liability will not apply for a new customer's first two OPT-E-MAN[®] Ports if the customer cancels service prior to the 61st calendar day of service.

This will allow customers to fully complete integration testing between AT&T's OPT-E-MAN[®] Network and their own Ethernet Network without incurring termination penalties associated with a circuit under the TPP if they elect not to continue service.

(M) Upgrades

An upgrade is considered an increase in speed/capacity and technology/functionality when comparing OPT-E-MAN[®] Service to the new service. Customers will be permitted to upgrade to a higher-speed service provided by the Company, without incurring Termination Charges, given all of the following conditions are met:

- (1) The customer must issue a disconnect order for the existing OPT-E-MAN[®] Service and place a service order for the new higher-speed service at the same locations such that there is no more than 90 days overlap in service.
- (2) The new higher-speed service term must be equal to or greater than the remaining time left on the existing OPT-E-MAN[®] term.
- (3) The existing OPT-E-MAN[®] Service must have been in service for a minimum period of 15 months for a 3-year term, or 18 months for a 5-year term.

Existing OPT-E-MAN[®] Service with 1 or 2-year terms would not be eligible for this option.

Customers subscribing to OPT-E-MAN[®] Service may upgrade to AT&T Switched Ethernet Service in Part 5, Section 4 of this Guidebook without incurring termination liability subject to the following conditions:

- (1) The new AT&T Switched Ethernet Service and the existing OPT-E-MAN[®] service must be billed to the same customer of record at the same customer location.
- (2) The customer's existing service must have been in place for at least 12 months.
- (3) The minimum term for the new service must be equal to or greater than the remaining months in the customer's existing EPP term.
- (4) The order for the new service and the disconnect order for the existing service must be placed by the customer and received by the Telephone Company on the same date.
- (5) If over-lapping service is required, the period will be limited to 90 days and billing will apply for both locations during the time both locations are available.

(N)

(N)

27.2 Rates and Charges

(A) Connection

Basic Connection	USOC	Month-to Month	1 Year ⁽⁵⁾	2 Year ⁽⁵⁾	3 Year ⁽⁵⁾	5 Year ⁽⁵⁾	NRC	(N)
10/100 Mbps	P9FEX	\$ 780.00	\$ 660.00	\$ 630.00	\$ 550.00	\$ 480.00	\$1,630.00 ⁽³⁾	
Gigabit Ethernet	P9FGX	\$1,190.00	\$1,020.00	\$ 970.00	\$ 850.00	\$ 720.00	\$1,780.00 ⁽³⁾	
Basic Plus Connection	USOC	Month-to Month	1 Year ⁽⁵⁾	2 Year ⁽⁵⁾	3 Year ⁽⁵⁾	5 Year ⁽⁵⁾	NRC	(N)
10/100 Mbps	P9FFX	\$ 780.00	\$ 660.00	\$ 630.00	\$ 550.00	\$ 480.00	\$1,630.00 ⁽³⁾	
Gigabit Ethernet	P9FHX	\$1,190.00	\$1,020.00	\$ 970.00	\$ 850.00	\$ 720.00	\$1,780.00 ⁽³⁾	

(B) Committed Information Rate (CIR)

(1) Best Effort Grade of Service

CIR Bandwidth Charges	USOC	Monthly Recurring Rate	NRC
CIR Speed (Mbps)			
2	R6E2E	\$ 215.00	\$0.00
4	R6E4E	\$ 250.00	\$0.00
8	R6E8E	\$ 390.00	\$0.00

(2) Bronze Grade of Service

CIR Bandwidth Charges	USOC	Monthly Recurring Rate	NRC ⁽⁴⁾
CIR Speed (Mbps)			
2	R6E2B	\$ 255.00	\$0.00
4	R6E4B	\$ 300.00	\$0.00
5 ⁽²⁾	R6EAB	\$ 380.00	\$0.00
8	R6E8B	\$ 465.00	\$0.00
10 ⁽²⁾	R6EBB	\$ 550.00	\$0.00
15 ⁽¹⁾	R6ECB	\$1,140.00	\$0.00
20 ⁽²⁾	R6EDB	\$ 760.00	\$0.00
25 ⁽¹⁾	R6EEB	\$1,420.00	\$0.00
30 ⁽¹⁾	R6EFB	\$1,530.00	\$0.00
40 ⁽¹⁾	R6EGB	\$1,650.00	\$0.00
50 ⁽²⁾	R6EHB	\$ 870.00	\$0.00
60 ⁽¹⁾	R6EJB	\$1,990.00	\$0.00
80 ⁽¹⁾	R6EKB	\$2,250.00	\$0.00
100 ⁽²⁾	R6ELB	\$1,020.00	\$0.00
125 ⁽¹⁾	R6EMB	\$2,460.00	\$0.00
150	R6ENB	\$1,160.00	\$0.00
175 ⁽¹⁾	R6EOB	\$3,570.00	\$0.00
200 ⁽¹⁾	R6EPB	\$3,740.00	\$0.00
250 ⁽²⁾	R6EQB	\$1,330.00	\$0.00
300 ⁽¹⁾	R6ERB	\$4,250.00	\$0.00
400 ⁽¹⁾	R6ESB	\$4,500.00	\$0.00
500 ⁽²⁾	R6ETB	\$1,610.00	\$0.00
600	R6EUB	\$1,890.00	\$0.00
700 ⁽¹⁾	R6EVB	\$5,270.00	\$0.00
800 ⁽¹⁾	R6EWB	\$5,520.00	\$0.00
900 ⁽¹⁾	R6EYB	\$5,780.00	\$0.00
1000 ⁽²⁾	R6EZB	\$2,180.00	\$0.00

⁽¹⁾ As of 03/31/05 the specified CIR Speeds will no longer be available to new customers, there will be no change to existing customers.

⁽²⁾ As of 03/31/05, a one-time CIR non recurring charge will be waived for all existing customers that are currently on a grandfathered CIR option and elect to change their selected CIR to (5, 10, 20, 50, 100, 250, 500, or 1000 Mbps) on or before 06/30/05.

⁽³⁾ As of 09/09/05 non-recurring charges will be waived for Basic and Basic Plus Connections for 2, 3 and 5 year terms for new service.

⁽⁴⁾ As of 09/06/06, the CIR NRC charges will be waived.

⁽⁵⁾ All term plans for OPT-E-MAN[®] Service which are established after November 9, 2013, for term lengths which are scheduled to expire at any time after October 1, 2018, will instead expire on October 1, 2018. All such services existing on or after October 1, 2018, will be provided on a month-to-month basis at the applicable, then current month-to-month rates.

(N)
|
(N)

(3) Silver Grade of Service

(T)

CIR Bandwidth Charges	USOC	Monthly Recurring Rate	NRC ⁽³⁾
CIR Speed (Mbps)			
2	R6E2C	\$ 425.00	\$0.00
4	R6E4C	\$ 465.00	\$0.00
5 ⁽²⁾	R6EAC	\$ 550.00	\$0.00
8	R6E8C	\$ 635.00	\$0.00
10 ⁽²⁾	R6EBC	\$ 720.00	\$0.00
15 ⁽¹⁾	R6ECC	\$1,290.00	\$0.00
20 ⁽²⁾	R6EDC	\$ 930.00	\$0.00
25 ⁽¹⁾	R6EEC	\$1,610.00	\$0.00
30 ⁽¹⁾	R6EFC	\$1,740.00	\$0.00
40 ⁽¹⁾	R6EGC	\$1,870.00	\$0.00
50 ⁽²⁾	R6EHC	\$1,040.00	\$0.00
60 ⁽¹⁾	R6EJC	\$2,270.00	\$0.00
80 ⁽¹⁾	R6EKC	\$2,550.00	\$0.00
100 ⁽²⁾	R6ELC	\$1,190.00	\$0.00
125 ⁽¹⁾	R6EMC	\$2,780.00	\$0.00
150	R6ENC	\$1,500.00	\$0.00
175 ⁽¹⁾	R6EOC	\$4,030.00	\$0.00
200 ⁽¹⁾	R6EPC	\$4,220.00	\$0.00
250 ⁽²⁾	R6EQC	\$1,670.00	\$0.00
300 ⁽¹⁾	R6ERC	\$4,800.00	\$0.00
400 ⁽¹⁾	R6ESC	\$5,100.00	\$0.00
500 ⁽²⁾	R6ETC	\$1,950.00	\$0.00
600	R6EUC	\$2,230.00	\$0.00
700 ⁽¹⁾	R6EVC	\$5,950.00	\$0.00
800 ⁽¹⁾	R6EWC	\$6,240.00	\$0.00
900 ⁽¹⁾	R6EYC	\$6,540.00	\$0.00
1000 ⁽²⁾	R6EZC	\$2,520.00	\$0.00

(N)

(N)

(N)

(1) As of 03/31/05, the specified CIR Speeds will no longer be available to new customers, there will be no change to existing customers.

(2) As of 03/31/05, the CIR non recurring charge will be waived for all existing customers that are currently on a grandfathered CIR option and elect to change their selected CIR to (5, 10, 20, 50, 100, 250, 500, or 1000 Mbps) on or before 06/30/05.

(3) As of 09/06/06, CIR NRC charges will be waived.

(C) EVC Charges

EVC CIR Range	Bronze USOC	Bronze Monthly Recurring Rate	Silver USOC	Silver Monthly Recurring Rate	NRC per EVC
2-100 Mbps	EVNAB	\$0.00	EVNAC	\$0.00	\$0.00
101-500 Mbps	EVNBB	\$0.00	EVNBC	\$0.00	\$0.00
501-1000 Mbps	EVNCB	\$0.00	EVNCC	\$0.00	\$0.00

(D) Other Charges

Item	USOC	Recurring Charge	Non-Recurring Charge
Administrative Charge per order	ORCMX	N/A	\$ 51.00
Design and Central Office Connection Charge per circuit	NRBCL	N/A	\$ 0.00
Customer Connection Charge per termination	NRBBL	N/A	\$ 0.00

(E) Optional Features

USOC	Month-to-Month	1 Year ⁽¹⁾	2 Year ⁽¹⁾	3 Year ⁽¹⁾	5 Year ⁽¹⁾	NRC	(N)
Repeater VU4	\$400.00	\$340.00	\$315.00	\$275.00	\$255.00	\$210.00	
		USOC	Recurring Charge	Non-Recurring Charge			
Additional MAC Addresses (51-100)		M2CAX	\$ 4.25	\$ 59.00			

⁽¹⁾ All term plans for OPT-E-MAN[®] Service which are established after November 9, 2013, for term lengths which are scheduled to expire at any time after October 1, 2018, will instead expire on October 1, 2018. All such services existing on or after October 1, 2018, will be provided on a month-to-month basis at the applicable, then current month-to-month rates.

(N)
|
(N)