

**SWITCHED DIGITAL SERVICE****A. SERVICE DESCRIPTION**

1. Switched Digital Service (SDS) is a switched telecommunications service that provides full duplex synchronous 56 kilobits per second (Kbps) end to end digital transport service over a single two wire non-loaded subscriber loop.
2. SDS allows customers to originate or receive switched digital 56 Kbps calls. Customers originate intraLATA SDS calls by dialing the telephone numbers of another SDS access line or Centrex DS station equipped with the Datapath access optional feature.
3. SDS allows customers to originate and receive interLATA calls to and from an Interexchange Carrier's Public Switched Digital service as set fourth in Ameritech Operating Companies Tariff F.C.C. No. 2 and Michigan Bell Tariff M.P.S.C. No. 20R, Part 21.
4. SDS is available to customers subject to operational limitations of the local serving central office equipment and the outside plant facilities. The normal distance limitation from the switching equipment to the customer's Data Termination Equipment is 2.0 cable miles. The service may be extended to 3.0 cable miles at Special Construction charges specified elsewhere in this Tariff.
5. Digital transmission speeds less than 56 Kbps may be accomplished via customer provided SDS compatible Data Terminating Equipment.

**B. DEFINITION OF TERMS**

1. SDS Access Line - A billable component associated with the transport facilities between a customer premises and the customer's normal serving Central office that provides data access to the switched network.
2. SDS Usage - A billable component associated with the holding time between the connection and termination of a call measured in minutes and remaining fractions of minutes.

**C. REGULATIONS**

1. SDS is only available in exchanges which have been converted to Business Measured Service under M.P.S.C. No. 20R Business Measured Rate Message charges apply to local calls from SDS lines.
2. SDS is offered only from Central Offices where facilities permit. In Central Offices not equipped to provide SDS, facilities may be constructed at the Company's discretion and Special Construction charges specified elsewhere in this tariff may apply.
3. The SDS access line does not include a listing.

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## SWITCHED DIGITAL SERVICE (Cont'd)

## C. REGULATIONS (Cont'd)

4. Suspension of service will not be provided with SDS.
5. Technical Publications concerning interface specifications and detailed descriptions of the operation and features of SDS are available and ordering information will be furnished by the Company upon request. Specifications for this service are subject to change.
6. The customer is responsible for the compatibility of customer provided equipment. Included is the replacement or modification of the customer's equipment and software due to equipment facility software or technological changes to SDS made by the Company. The Company shall not be responsible if changes in any of the equipment operations or procedures of the Company utilized in the provision of SDS service, render any customer premises equipment obsolete or require modification or alteration of such equipment, systems or otherwise affect its use or performance. In the event of a change which will require replacement, modification or alteration of customer provided equipment or systems, the customer will be given adequate notice in writing to allow the customer an opportunity to maintain uninterrupted service.

Material originally appeared in INFORMATION LINK No. 2, on Original Sheet 89

## SWITCHED DIGITAL SERVICE (Cont'd)

## D. RATES AND CHARGES

1. In addition to the SDS rates and charges specified below, Business Measured Rate Message Charges, interzone, toll or access charges apply, as appropriate.

## a. Rates and Charges

## (1) Monthly Rates -

SDS Access Line and Usage

	<u>USOC</u>	<u>Month to Month</u>
0-2 cable miles	SDH1A	\$40.00
2.1-3.0 cable miles /a/		

SDS Usage - Rate Per each Minute  
and remaining fractions of a minute

.06

## (2) Nonrecurring Charges -

\$265.00/b/

/a/ Special Construction Charges may be applicable.

/b/ This charge is in addition to the Line Connection charge specified in Tariff M.P.S.C. No. 20R.

**AMERITECH PRIMENUMBER SERVICE**

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/1/ Material now appears in Part 20, Section 6.

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/1/ Material now appears in Part 20, Section 6.

**BASELINE 3-1-1 SERVICE****A. DESCRIPTION**

Baseline 3-1-1 nonemergency service is an intraLATA local service that will provide the local government entity ("customer") the ability to terminate all 3-1-1 dialed incoming calls to a central location or to alternate customer-defined location(s) based on the originator's Calling Party Number (CPN) and associated nine-digit zip code.

Baseline 3-1-1 can also be used to provide access to local government offices (such as the Mayor's Office, Department of Parks and Recreation, Planning Commission, etc.). Access to local government offices can only be provided in addition to nonemergency access to police and fire. This capability is dependent upon ancillary Customer Premise Equipment (CPE) (i.e. IVR, ACD, etc.) capabilities or customer resources (i.e. Operators to transfer calls).

Baseline 3-1-1 Service will recognize, route and deliver 3-1-1 dialed calls to Customer Provided Equipment which either (i) originate from Ameritech end offices serving the customer, or (ii) originate from non-Ameritech end offices, provided that the customer, Ameritech and other service providers have reached an agreement as to the interconnection and processing of 3-1-1 calls originating from non-Ameritech end offices.

Calls to "3-1-1" will be routed via the Ameritech public switched network utilizing Advanced Intelligent Network platforms and features to route the call to customer designated location(s).

**BASELINE 3-1-1 SERVICE (cont'd)****B. DEFINITIONS****Advanced Intelligent Network (AIN)**

AIN is a telecommunications network that is software controlled. The network "intelligence" is located in computer nodes which are distributed throughout the network, rather than being confined to the originating and terminating switching offices. Before calls (either outbound or inbound) are sent to their final destination, the network queries a database for disposition of the call.

**Calling Party Number (CPN)**

The ten digit telephone number of the calling party.

**Route To Number**

Ten digit telephone number(s) designated by the customer for 3-1-1 call termination.

**SecurID**

A security application to be utilized by authorized personnel to access the Service Management System.

**Service Management System**

A computerized database containing relational customer data information that is utilized to route 3-1-1 calls.

**Signaling System No. 7 (SS7)**

The telecommunications signaling system using protocols recommended by the International Consultative Committee for Telegraphy and Telephony (ICCTT) used by Ameritech to route calls over the public switched network.

**BASELINE 3-1-1 SERVICE (cont'd)****C. TERMS AND CONDITIONS**

1. A prospective Baseline 3-1-1 Service customer must make separate arrangements for business Local Exchange Access Service prior to establishment of Baseline 3-1-1 Service.
2. Baseline 3-1-1 Service is available where facilities permit and is provided subject to the terms and conditions contained in Michigan Statute MSA § 22.1467(604), which reads as follows:

Other than for pro rata charges for the service during a period when the service may be fully or partially inoperative, a service supplier, public agency, PSAP, or an officer, agent, or employee of any service supplier, public agency, or PSAP, or an owner or lessee of a pay station telephone shall not be liable for civil damages to any person as a result of an act or omission on the part of the service supplier, public agency, PSAP, or an officer, agent, or employee of any service supplier, public agency, or PSAP, or an owner or lessee in complying with any provision of this act, unless the act or omission amounts to gross negligence or willful and wanton misconduct.

3. Baseline 3-1-1 Service is only available on a thirty-six (36) month term payment plan basis. The thirty-six (36) month term period will begin on the completion date of the Service Order.
4. Applicable charges for local calls placed to Baseline 3-1-1 will be billed to the originating party.
5. Baseline 3-1-1 Service is compatible with Caller ID Service network functionality when used in conjunction with basic exchange services. Caller ID Service is available where facilities permit at the applicable tariff price.
6. With establishment of Baseline 3-1-1 Service, the customer will be provided with a SecurID access card. SecurID cards provide the customer with access to the Baseline 3-1-1 Service network system in order to maintain or modify the customer's Routing Table or Database, and to access standard Baseline 3-1-1 Service reports.

Upon receipt of the SecurID card(s), the customer assumes responsibility for safeguarding the use of their assigned card(s) and for any breaches to security resulting from the loss or misuse of the SecurID card(s).

**BASELINE 3-1-1 SERVICE (cont'd)****D. FEATURES****1. Standard Features****Call Routing**

3-1-1 dialed calls can be terminated to a customer defined location or to alternate locations.

**Management Reports**

Baseline 3-1-1 Management Reports can be accessed via dial-up access. Reports available include the Default Number Report and Summary Report.

**2. Optional Features****Day of Year and Time of Day Routing**

Allows a Baseline 3-1-1 Service customer to select the location to which calls will be routed based upon the time of day and day of year (specific date) that calls originate.

**Day of Week and Time of Day Routing**

Allows a Baseline 3-1-1 Service customer to select the location to which calls will be routed based upon the time of day and day of week that calls originate.

**BASELINE 3-1-1 SERVICE (cont'd)****E. PRICES****1. Service Elements**

Description	Nonrecurring Charge	Monthly Payment
		Term Payment Plan 36 Months
<b>Baseline 3-1-1 Service</b> per customer, per LATA	\$5,500.00	\$250.00
<b>Routing Table Development/Updates</b> First 500 records	100.00	-
Each additional 500 records, or fraction thereof	70.00	-
<b>Routing Table Maintenance Charges</b> per Route to Number	-	30.00
<b>Distribution/Routing Criteria</b> per subscription		
NPA or NPA/NXX	75.00	50.00
NPA/NXX with Zip +4	125.00	75.00
<b>Additional Routing Options</b> Day of Year and Time of Day	50.00	25.00
Day of Week and Time of Day	50.00	25.00

**BASELINE 3-1-1 SERVICE (cont'd)****E. PRICES (cont'd)****1. Service Elements (cont'd)**

Description	Price Per Call
<b>Query/Routing Charge</b>	
total 3-1-1 calls, per month, per LATA	
0 - 50,000 calls	\$0.10
50,001 + calls	0.08
Description	Price Per Minute
<b>Additional Minutes of Use</b>	
per minute, for each minute of use beyond the first twenty (20) minutes of each message	
	\$0.04



**BASELINE 3-1-1 SERVICE (cont'd)**

<b>E. PRICES (cont'd)</b>
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**2. Payment Plans**

- **Term Payment Plans**

Baseline 3-1-1 Service is only offered under a Term Payment Plan for a period of 36 months.

**3. Termination Charges**

In the event that a customer initiates a Service Order request for Baseline 3-1-1 Service, and subsequently cancels the Service Order prior to full operational establishment of service, the customer remains liable for all non-recurring service establishment charges specified in this Tariff.

Customers that cancel their Baseline 3-1-1 Service before the term expiration date will be billed a termination liability which consists of a lump sum equal to the non-usage sensitive monthly recurring charges specified in this tariff times the number of months remaining on the term period, rounded up to the nearest whole month.

Any cancellation or termination liability lump sum payment will become due and payable in its entirety immediately upon calculation and presentation of the lump sum bill statement.

At the expiration of the thirty-six (36) month term period, subsequent monthly billing will revert to the Baseline 3-1-1 Service monthly prices in effect at that time, as specified in this Tariff. Termination liability charges are no longer applicable once the term period has expired.

**OPT-E-MAN Service****A. Description**

OPT-E-MAN Service is an optically switched data service which allows for versatile scalability and flexibility over an Ethernet network provided by the Company. OPT-E-MAN Service allows businesses to interconnect customer locations within a Metropolitan Area Network (MAN) as if they were segments on the same LAN using packet-based switching technologies. Connections at the customer premises are made using Native Ethernet interfaces and traverse the MAN over fiber and/or copper facilities (at the Company's discretion). OPT-E-MAN Service provides dedicated bandwidth from 2 Mbps up to 1 Gbps.

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Customers connect to OPT-E-MAN Service via one of the following standard connections, as requested by the customer:

- 10/100BaseT (100 Mbps)
- Gigabit Ethernet (1000BaseSX, 1000BaseLX/LH or 1000BaseZX)<sup>/1/</sup>

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Customers may connect any 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<sup>/2/</sup>, as long as they are in the same LATA or MAN and the service is available.

OPT-E-MAN Service includes the connection from the customer's premise to the Ethernet network, a port on the Ethernet network, a Committed Information Rate (CIR), and Ethernet Virtual Connections (EVCs). Ethernet Virtual Connections (EVCs) are logical connections that establish a logical path for customer traffic between two customer locations. A portion of the CIR is assigned to each EVC to establish how much bandwidth each path should have.

/1/ CIR is inclusive of allowances for overhead within the Ethernet network. If a customer orders 1 Gbps of CIR on a single port, the Company reserves the right to use up to 10% of the bandwidth for traffic management.

/2/ This provisioning requirement will only apply to new service installed after November 29, 2006.

OPT-E-MAN is a registered trademark of AT&T Intellectual Property

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**OPT-E-MAN Service (cont'd)**

(C)

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

OPT-E-MAN is provided under several service configurations:

- |            |  |
|------------|--|
| Basic      | The OPT-E-MAN Basic service configuration provides the customer a switched, logical point-to-point or point-to-multipoint connection between customer locations, using a physical connection to the network, and virtual connections through the OPT-E-MAN network.                                |
| Basic Plus | The OPT-E-MAN Basic Plus service configuration provides the customer a switched, logical point-to-point, point-to-multipoint or multipoint-to-multipoint connection between customer locations, using a physical connection to the network, and virtual connections through the OPT-E-MAN network. |

**OPT-E-MAN Service (cont'd)****A. Description (cont'd)**

Service configurations include a choice of one of three underlying Grades of Service: Best Effort, Bronze and Silver. Each Grade of Service offers a different level of service performance. The following describes the service parameters for each Grade of Service. (C)

Best Effort	This Grade of Service supports non-critical data applications with more tolerance for delay and/or those that are lower in priority (i.e. LAN traffic). There are no service performance parameters associated with this Grade of Service.	(N)   (N)
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Bronze	The applications best suited for this Grade of Service are general data applications with more tolerance for delay and/or those that are lower in priority. This Grade of Service is the appropriate selection for general data traffic since it tolerates bursty and time-varying traffic. The service parameters associated with this Grade of Service are Packet Delivery Rate (PDR) and Latency.
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Packet Delivery Rate is at least 99.5% of total traffic from source Network Terminating Equipment (NTE) to the destination NTE to which the customer port is attached.

Latency is limited to a delay across a connection of no more than 27 ms (54 ms roundtrip) one-way end-to-end within the Company's network for packets 1500 bytes or less.

Silver	This Grade of Service supports applications that require minimal loss and low latency variation (jitter). Data in this Grade of Service will be provisioned in a priority queue indicating that it is delay sensitive. The service parameters associated with this Grade of Service are Packet Delivery Rate (PDR), Latency and Jitter.
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Packet Delivery Rate is at least 99.9% of total traffic from source Network Terminating Equipment (NTE) to the destination NTE to which the customer port is attached.

Latency is limited to a delay across a connection of no more than 18 ms (36 ms roundtrip) one-way end-to-end within the Company's network for packets 1500 bytes or less.

Jitter is limited to less than 12 ms one-way end-to-end within the Company's network.

**OPT-E-MAN Service (cont'd)**

(C)

**B. DEFINITIONS****Jitter**

Jitter is the delay that occurs between 2 packets or Ethernet frames that are traversing the network. Jitter is calculated as the delay variance of the packets transported across the network or the delta of delay between two consecutive packets. It is measured between two endpoints, and will consist of measuring the time between a set of packets. Jitter is measured by averaging sample measurements taken during a 30 day period between network terminating equipment to which the customer ports are attached when the OPT-E-MAN network is available.

**Latency**

Latency is the amount of time necessary for a typical frame to traverse the network. Latency is calculated as the measurement of time taken for a customer frame to go from one end of the network (origination point) to the other end (termination point). The measurement will consist of measuring the time it takes to "ping" or travel from the origination to termination ports for the connection in question. Latency is measured by averaging sample measurements taken during a 30 day period between network terminating equipment to which the customer ports are attached when the OPT-E-MAN network is available.

**Media Access Control (MAC) Addresses**

Denotes a data link layer protocol used for Layer 2 connectivity.

**Packet Delivery Rate (PDR)**

Packet Delivery Rate (PDR) is a measurement of the actual amount of useful and non-redundant information that is transmitted or processed from end-to-end across the network. It is a function of bandwidth, error performance, congestion and other factors. PDR is expressed as a percentage of Ethernet frames offered to the network that successfully traverse the network, end-to-end, within the CIR, and within a 30 day period. PDR is calculated as the total number of effective Ethernet frames, per port, that successfully traverse the network divided by the total number of effective Ethernet frames, per port, offered to the network within a 30 day period. Those frames that violate the maximum range will be excluded from the calculation. PDR is measured by averaging sample measurements taken during a 30 day period from network terminating equipment to network terminating equipment to which the customer ports are attached when the OPT-E-MAN network is available.

**OPT-E-MAN Service (cont'd)****C. Terms and Conditions**

In addition to regulations set forth elsewhere in this Guidebook, the following regulations apply to (C)  
OPT-E-MAN Service:

1. OPT-E-MAN Service is provided at the option of the Company where equipment and facilities permit. If appropriate facilities are not available, Special Construction charges may apply.
2. The customer provided equipment (CPE) must deliver the data signal for the OPT-E-MAN transport within the industry specification for the subscribed data service. See Paragraph **E. – TECHNICAL REFERENCES**.
3. OPT-E-MAN Service supports full duplex communication.
4. OPT-E-MAN Service does not allow for oversubscription. The sum total of the Usage assigned to EVCs are mapped to a single port, and cannot exceed the ordered CIR.
5. If a customer connects to the OPT-E-MAN network using a bridge or switch for Layer 2 connectivity, only 50 MAC addresses can be used per Layer 2 device, per port. Any additional addresses will be assessed an additional charge, with a limit of 100 MAC addresses total per port. See **PRICES** following.
6. If a customer desires service from a Serving Wire Center that is not equipped to provide OPT-E-MAN Service, additional charges may apply for use of a Repeater. A network engineering study will need to be completed to ensure adequate service provisioning is capable. See **PRICES** following.
7. For Basic Service, a total of 8 Ethernet Virtual Connections (EVCs) may be configured per 10/100BaseT connection, and a total of 64 EVCs may be configured per 1 Gbps connection. For Basic Plus Service, a total of 7 EVCs may be configured per 10/100BaseT connection, and a total of 63 EVCs may be configured per 1 Gbps connection. Should the customer request more than 64 EVCs on a Basic Service 1 Gbps connection, or more than 63 EVCs on a Basic Plus Service 1 Gbps connection, a technical review will need to be conducted to determine whether the network will support more EVCs.

**OPT-E-MAN Service (cont'd)****C. Terms and Conditions (cont'd)**

8. If a customer desires that service be provided on a due date less than the standard interval, the customer may request that service be provided on an expedited basis. If the Company determines that service can be provided on the requested expedited date and spare facilities are available, the Expedite Order Charge (per port, per location) will apply. See **PRICES** below.
9. If the customer cancels service prior to installation being completed, a Service Order Cancellation Charge (per port, per location) will apply. See **PRICES** below. The customer's intent to cancel service must be made in writing.
10. The CIR selected by the customer must be committed to for a 30 day period before an increase in CIR can be requested.
11. OPT-E-MAN Service may be available in a meet-point billing arrangement involving another Incumbent Local Exchange Carrier (ILEC) (sometimes also referred to as an Independent Company or ICO), where suitable facilities exist and where appropriate procedures for such arrangements have been put in place between the Company and the other ILEC. When the Company and another ILEC jointly provision OPT-E-MAN Service with the other ILEC's service, the ILEC involved shall bill the customer at that ILEC's applicable rates for their portion of the service located in their operating territory. Ordering and provisioning procedures may vary, and therefore Meet-Point rate elements and charges may not be applicable, when the other ILEC involved in the Meet-Point arrangement is an AT&T ILEC.
12. A Letter of Authorization (LOA) will need to be established if customers want to purchase a logical connection via an Ethernet Virtual Connection (EVC) to another customer in order to ensure security and accuracy in the connection.

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(C)

**OPT-E-MAN Service (cont'd)****C. Terms and Conditions (cont'd)**

13. Service Level Agreements (SLAs) are offered with this service for the Bronze and Silver Grades of Service, and provide customers with end-to-end performance backed by service credits if minimum quality standards are not met by the Company. (C)  
(C)

**Network Availability**

Network Availability of 99.95% per month, including the local loop, is provided by the Company. This equates to less than 21.6 minutes of downtime per month (based on a 30-day month), excluding maintenance windows and other appropriate exclusions (see Exclusions following). Network Availability is calculated as the percentage of time that the OPT-E-MAN network is capable of accepting and delivering customer data to the total time in the measurement period. The calculation for Network Availability for a given calendar month is as follows:

Network Availability =

[24 hours x days in month x 60 minutes x number of customer sites] – network outage time  
(measured in minutes)

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[24 hours x days in month x 60 minutes x number of customer sites]

- As noted in the above formula, all ports included in a customer's network are utilized in calculating *Network Availability*.
- The customer is responsible for (1) notifying the Company within 45 days after the end of the month when the service parameter within the calendar month falls below the committed level, and (2) requesting a service credit.
- 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.



**OPT-E-MAN Service (cont'd)****C. Terms and Conditions (cont'd)**

14. Grade of Service SLAs are provided for OPT-E-MAN Service for the Bronze and Silver Grades of Service. If the Company fails to meet service parameters defined for the Bronze or Silver Grades of Service, a service credit will be offered to the customer given certain conditions are met: (C)
- The customer is responsible for (1) notifying the Company within 45 days after the end of the month when the service parameter falls below (or above) the committed level, and (C)
  - Upon notification by the customer that the actual service performance for that parameter was less than the committed level, the Company has 30 days to correct the problem.
  - If after 30 days, 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 for the month in which the service parameters fall below (or above) the committed level.
  - Packet Delivery Rate, Latency and Jitter calculations will be measured only when the OPT-E-MAN network is available.

**OPT-E-MAN Service****C. Terms and Conditions (cont'd)**

## 15. Exclusions (Service Level Agreements and Grade of Service credits)

The Company will be excluded from providing Service Level Agreements credits and Grade of Service credits for the Bronze and Silver Grades of Service should any of the following conditions occur: (C)

- 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 Company's reasonable control such as acts of war, civil disturbances, acts of civil or military authorities or public enemy. (C)
- All SLAs are offered across the Company's network. The failure of any components beyond the local facility, including the Network Interface (NI), are excluded from the SLA calculation. (C)
- Data loss during the Company's scheduled maintenance window.
- Data exceeding subscribed Usage.
- Failures attributed to facilities or equipment provided by customer or its contractors, equipment vendors, another local exchange carrier or inter-exchange carrier.
- Any type of Customer Network Management functionality is not included in SLAs.

16. For Basic Plus multipoint-to-multipoint service, the 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, while the maximum throughput of broadcast traffic will be set at 200 packets per second per port. Packets dropped by traffic controls will be excluded from SLA calculations. The Company recommends that customers enable controls for multicast, broadcast and unknown unicast traffic within the customer network(s).

**OPT-E-MAN Service (cont'd)****C. TERMS AND CONDITIONS (cont'd)**

17. For Basic and Basic Plus point-to-point and point-to-multipoint service, the Company will use controls to limit the amount of broadcast traffic to protect the OPT-E-MAN network against broadcast storms. The maximum throughput of broadcast traffic will be set at 10 Mbps per customer port. Packets dropped by traffic controls will be excluded from SLA calculations. The Company recommends that customers enable controls for broadcast traffic within the customer network(s).<sup>/1/</sup> (N)
18. Data exiting the network through the customer ports are excluded from SLA calculations to the extent that it exceeds the CIR for those ports. (N)
19. The responsibility of the Company shall be limited to furnishing the OPT-E-MAN network. Subject to this responsibility, the Company shall not be responsible for the through transmission of signals generated by CPE or for the quality of, or defects in, such transmission or the rejection of signal by CPE. The Company shall not be responsible for installation, operation, maintenance or adapting OPT-E-MAN to the technological requirements of specific CPE. In addition, the Company shall not be responsible to the customer if changes in any of the equipment, operations or procedures of the Company used in the provisioning of OPT-E-MAN render any facilities provided by the customer obsolete; or require modification or alteration of such equipment or system; or otherwise affect its use or performance, provided the Company has met all applicable information disclosure requirements otherwise required by law. (M)<sup>/2/</sup>  
(M)<sup>/2/</sup>  
(C)

(M)<sup>/3/</sup>

- /1/ This provisioning requirement will only apply to new service installed after April 30, 2007.  
/2/ Material formerly appeared on 3rd Revised Sheet 25 in this Section.  
/3/ Material now appears on Original Sheet 25.2 in this Section.

**OPT-E-MAN Service****C. Terms and Conditions (cont'd)**

20. Customers will be permitted to move from a 10/100BaseT to a Gigabit Ethernet interface option where facilities and equipment permit (staying within the Basic or Basic Plus Connection, or moving from the Basic to the Basic Plus Connection), however, the Nonrecurring Charge associated with the new Gigabit Ethernet Connection will apply. However, should a customer simply wish to move from Basic to Basic Plus (without any change to the interface option; for example, retaining the 10/100BaseT interface), only the Service Order Change Charge will apply. See **PRICES** following.
21. 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.<sup>/1/</sup>

The aggregate assigned Committed Information Rate (CIR) across all ICO trunk connections (EVCs) between any two customer connections utilizing a meet-point GigE ICO Trunk Arrangement between the Company and an ILEC (ICO) cannot exceed 600 Mbps per Basic or Basic Plus connection.<sup>/2/</sup>

(N)  
|  
(N)

- /1/ This provisioning requirement will only apply to new service installed after November 29, 2006.  
/2/ This provisioning requirement will only apply to new service installed after March 31, 2009.

(N)

**OPT-E-MAN Service (cont'd)****D. Features**

## 1. Standard Features

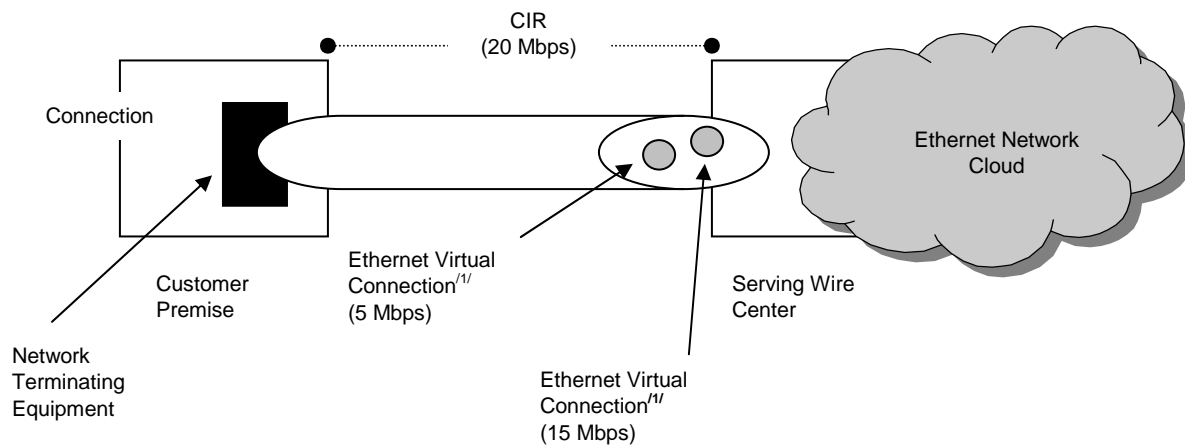
**Committed Information Rate (CIR)**

CIR provides a committed level of transmission (or bandwidth) to the Connection. The customer can select a CIR from 2 Mbps to 1 Gbps per connection. The CIR is shared among one or more Ethernet Virtual Connections (EVCs), which provide a logical point-to-point connection between two customer locations. (C)

**Connection**

Provides for the physical connection between the customer's premise and the serving wire center. This is comprised of a transport component, interface component and a port connection component. Several interface protocols are available: 10/100BaseT and Gigabit Ethernet (1000BaseSX, 1000BaseLX/LH or 1000BaseZX). (C)

The following diagram describes a standard service configuration:



/1/ Ethernet Virtual Connections are used to establish a path for certain traffic between two customer locations, and do not have a charge associated with them. Each EVC must have a portion of the Committed Information Rate (CIR) service element assigned to it.

**OPT-E-MAN Service (cont'd)****D. Features (cont'd)**

## 2. Optional Features

**Ethernet Virtual Connections (EVC)**

An Ethernet Virtual Connection is a logical point-to-point connection between two customer locations, and goes from the customer demarcation point at one location through the OPT-E-MAN network to terminate at the demarcation point at the second customer location. When multiple EVCs are provisioned, the customer must designate the portion of the CIR assigned to each EVC. For point-to-point and point-to-multipoint connections, EVCs can be set in 1 Mbps increments from 2 Mbps to 600 Mbps<sup>/1/</sup>. For multipoint-to-multipoint connections, EVCs can be set in 1 Mbps increments from 2 Mbps to 1 Gbps.

(C)  
(C)

If a customer purchases the Silver Grade of Service for CIR, the initial EVC will be prioritized as Silver. Additional EVCs can be prioritized as Silver, Bronze or Best Effort.

(C)

If a customer purchases the Bronze Grade of Service for CIR, additional EVCs cannot be prioritized as Silver, but only as Bronze or Best Effort.

(C)  
(C)

If a customer purchases the Best Effort Grade of Service for CIR, additional EVCs can only be prioritized as Best Effort.

(N)  
(N)**Repeater**

For those customers who are located outside normal transmission parameters, or who are served by a Serving Wire Center that is not equipped for OPT-E-MAN Service, service can be provided using a repeater. An engineering study will be completed to ensure transmission parameters can be met using a repeater, and the Company will determine when Repeaters are necessary. Additional charges will apply. Provisioning of OPT-E-MAN Service is subject to the availability and operational limitations of the equipment and associated facilities.

**Additional MAC Addresses**

If a customer connects to the OPT-E-MAN network using a bridge or switch for Layer 2 connectivity, only 50 MAC addresses can be used per Layer 2 device, per port. Any additional addresses will be assessed an additional charge, with a limit of 100 MAC addresses total per port.

/1/ This provisioning requirement will only apply to new service installed after November 29, 2006.

**OPT-E-MAN® Service (cont'd)**

(N)

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

## 2. Optional Features

Meet-Point Billing Options

Meet-Point is available in two configurations:

**Direct LEC Connection** is provisioned using a standard OPT-E-MAN Basic or Basic Plus Connection and associated CIR, plus Mileage. The mileage is measured in airline miles from the OPT-E-MAN switch location to the ILEC (ICO) meet-point location.

**GigE ICO Trunking Arrangement** applies an ICO Trunk Connection Charge between the OPT-E-MAN switch location and the ICO meet-point location that is shared with the ILEC (ICO) Ethernet switch. The ICO Trunk Connection Charge is applied to each customer Ethernet Virtual Connection (EVC) that is transported on the GigE trunk backbone to the ICO meet-point. The ICO Trunk Mileage charge is applicable to each customer Ethernet Virtual Connection (EVC) transported across the GigE trunk when mileage exceeds 10 miles. Mileage is calculated from the OPT-E-MAN switch location to the ICO meet-point location.

(N)

**OPT-E-MAN Service (cont'd)**

(C)

***E. TECHNICAL REFERENCES***

The customer interface to OPT-E-MAN Service is as specified in:

<u>Subject</u>	<u>Technical Reference</u>
Ethernet Standards	SBC TP-76412-000
Network Equipment Design Requirements	SBC TP-76200MP

These publications may be obtained from:

APEX Support Team	(C)
(734) 523-7348	(C)



**OPT-E-MAN Service (cont'd)****F. Prices**

## 1. Service Elements

<u>Description</u>	<u>Nonrecurring Charge</u> <sup>/1/</sup>	<u>Monthly Payment Term Payment Plans</u>				<u>Monthly Extension</u>	(C)
		<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60<sup>/2/</sup> Months</u>		
Connection, each customer location							
<i>Basic Service</i>							
10/100BaseT	\$1,925.00	\$780.00	\$750.00	\$650.00	\$575.00	\$925.00	
Gigabit Ethernet	2,100.00	1,200.00	1,150.00	1,000.00	850.00	1,400.00	
<i>Basic Plus Service</i>							
10/100BaseT	1,925.00	780.00	750.00	650.00	575.00	925.00	
Gigabit Ethernet	2,100.00	1,200.00	1,150.00	1,000.00	850.00	1,400.00	

/1/ Nonrecurring charges will be waived for those customers selecting the 24-, 36- or 60-month<sup>/2/</sup> Term Payment Plan (TPP) period for new service. (C)

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
|  
(N)

**OPT-E-MAN Service (cont'd)****F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u> <sup>/1/</sup>	<u>Monthly Price</u> <i>Grade of Service</i>		
		<u>Best Effort</u>	<u>Bronze</u>	<u>Silver</u>
Committed Information Rate (CIR) (Mbps) - per port				
2	\$75.00	\$255.00	\$300.00	\$500.00
4	75.00	295.00	350.00	550.00
5	75.00	N/A	450.00	650.00
8	75.00	465.00	550.00	750.00
10	75.00	N/A	650.00	850.00
20	75.00	N/A	900.00	1,100.00
50	75.00	N/A	1,025.00	1,225.00
100	75.00	N/A	1,200.00	1,400.00
150	75.00	N/A	1,375.00	1,775.00
250	75.00	N/A	1,575.00	1,975.00
500	75.00	N/A	1,900.00	2,300.00
600	75.00	N/A	2,225.00	2,625.00
1000	75.00	N/A	2,575.00	2,975.00

/1/ Nonrecurring charges will be waived for those customers selecting the 24-, 36- or 60<sup>/2/</sup>-month Term Payment Plan (TPP) period for new service. (C)

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
|  
(N)

**OPT-E-MAN Service (cont'd)****F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u>	<u>Monthly Price</u> <i>Grade of Service</i>		
		<u>Best Effort</u>	<u>Bronze</u>	<u>Silver</u>
<i>Optional Charges</i>				
Ethernet Virtual Connection (EVC) <sup>/1/</sup>				
- per connection	\$0.00	\$0.00	\$0.00	\$0.00

<u>Description</u>	<u>Nonrecurring Charge</u> <sup>/2/</sup>	<u>Monthly Payment</u> <i>Term Payment Plans</i>				<u>Monthly Extension</u>	(C)
		<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60<sup>/3/</sup> Months</u>		
Repeater, each	\$250.00	\$400.00	\$375.00	\$325.00	\$300.00	\$475.00	

/1/ Ethernet Virtual Connections (EVCs) are required for provisioning purposes only, and as such will not have a charge associated with them.

/2/ Nonrecurring charges will be waived for those customers selecting the 24-, 36- or 60<sup>/3/</sup>-month Term Payment Plan (TPP) period for new service. (C)

/3/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
|  
(N)

**OPT-E-MAN Service (cont'd)****F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u>	<u>Monthly Price</u>
<i>Optional Charges (cont'd)</i>		
Meet-Point Billing Options		
- Direct LEC Connection, Mileage		
Above 0 and inclusive of 10 miles	\$1,200.00	\$500.00
Above 10 and inclusive of 25 miles	1,200.00	1,000.00
Above 25 and inclusive of 35 miles	1,200.00	1,500.00
Above 35 and inclusive of 50 miles	1,200.00	2,500.00

<u>Description</u>	<u>Nonrecurring Charge</u> <sup>/1/</sup>	<u>Monthly Payment Term Payment Plans</u>				<u>Monthly Extension</u>	(C)
		<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60<sup>/2/</sup> Months</u>		
- GigE ICO Trunking Arrangement							
ICO Trunk Connection Charge, per EVC							
2 Mbps	\$300.00	\$340.00	\$290.00	\$250.00	\$220.00	\$400.00	
4 Mbps	345.00	380.00	330.00	285.00	250.00	440.00	
5 Mbps	400.00	430.00	370.00	315.00	270.00	500.00	
8 Mbps	460.00	490.00	420.00	360.00	310.00	570.00	
10 Mbps	525.00	570.00	490.00	420.00	360.00	660.00	
20 Mbps	600.00	670.00	580.00	504.00	430.00	780.00	
50 Mbps	700.00	840.00	730.00	630.00	540.00	970.00	
100 Mbps	800.00	1,120.00	970.00	840.00	720.00	1,290.00	
150 Mbps	925.00	1,670.00	1,450.00	1,260.00	1,080.00	1,930.00	
250 Mbps	1,100.00	2,160.00	1,870.00	1,620.00	1,380.00	2,490.00	
500 Mbps	1,100.00	4,640.00	4,030.00	3,500.00	2,980.00	5,340.00	
600 Mbps	1,100.00	5,560.00	4,830.00	4,200.00	3,570.00	6,400.00	
1 Gbps	1,100.00	6,390.00	5,500.00	4,830.00	4,100.00	7,360.00	

/1/ Nonrecurring charges will be waived for those customers selecting the 24, 36 or 60<sup>/2/</sup> month Term Payment Plan (TPP) period for new service. (C)

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
(N)

**OPT-E-MAN® Service (cont'd)**

(N)

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

## 1. Service Elements (cont'd)

<u>Description</u>	<u>Monthly Price</u>
<u>Optional Charges (cont'd)</u>	
Meet-Point Billing Options (cont'd)	
- GigE ICO Trunking Arrangement (cont'd)	
ICO Trunk Mileage, per EVC	
Above 0 and inclusive of 10 miles	N/A
Above 10 and inclusive of 25 miles	
2 Mbps to 20 Mbps	\$170.00
50 Mbps to 150 Mbps	375.00
250 Mbps to 1 Gbps	1,500.00
Above 25 and inclusive of 35 miles	
2 Mbps to 20 Mbps	270.00
50 Mbps to 150 Mbps	675.00
250 Mbps to 1 Gbps	1,750.00
Above 35 and inclusive of 50 miles	
2 Mbps to 20 Mbps	410.00
50 Mbps to 150 Mbps	1,100.00
250 Mbps to 1 Gbps	2,000.00

(N)

**OPT-E-MAN Service (cont'd)****F. Prices (cont'd)**

## 1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u>	<u>Monthly Price</u>
<i>Optional Charges (cont'd)</i>		
Additional MAC Addresses		
- 51-100 MAC addresses	\$ 70.00 <sup>/1/</sup>	\$5.00
Service Order Cancellation		
- per location	200.00	-
Expedite Order Charge		
- per location	300.00	-
Service Order Change Charge		
- applies to CIR Changes, EVC Changes and Configuration Changes, per location	75.00	-

/1/ Nonrecurring charges will be waived for those customers selecting the 24-, 36- or 60<sup>/2/</sup>-month Term Payment Plan (TPP) period for new service. (C)

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
|  
(N)

**OPT-E-MAN Service (cont'd)****F. Prices (cont'd)**

## 2. Payment Plans

- Term Payment Plans

OPT-E-MAN Service is only available under the Term Payment Plan (TPP) whereby customers must select either a 12, 24, 36 or 60<sup>/1/</sup> month period. Decreases in OPT-E-MAN monthly recurring charges will be passed onto customers who participate in a TPP. After the selected Term Payment Plan period is satisfied, the Monthly Extension Price in effect at the time of contract expiration will apply unless a new TPP is selected. Refer to *Term Payment Plans* in Part 2, Section 3. (C)

- Single Payment Option (SPO)

A single payment option is available for this service. Refer to *Term Payment Plans* in Part 2, Section 3 for calculating Single Payment Options.

/1/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for OPT-E-MAN Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months. (N)  
|  
(N)

**OPT-E-MAN Service (cont'd)****F. Prices****3. Termination Charges**

Termination Charges will apply to service terminated prior to the contracted period. In addition to any unpaid Special Construction or nonrecurring charges (excluding any waived charges), Termination Charges will be equal to:

- 50 percent (50%) of all recurring charges for the remaining months of the customer's term

Customers may upgrade their CIR to a higher speed without incurring Termination Charges, depending on facilities used. The Company will determine whether such an upgrade is permissible based on the type of facilities currently used to provide the service. In addition, Customers may upgrade their Grade of Service without incurring Termination Charges provided the upgrade does not include any reduction in the customer's existing CIR. (C)  
(C)  
(D)

Customers may move their existing service to a new location without incurring Termination Charges provided all of the following conditions are met:

- The customer maintains the existing TPP at the new location or establishes a new TPP equal to or greater than the old location;
- During the TPP, a customer may move an OPT-E-MAN Service location to another premises in the same LATA and keep the TPP in force without assessment of Termination Charges, provided no lapse in billing occurs;
- The customer's request for disconnect at the existing location and the request for service at the new location are received at the same time, and the customer's disconnect order for the existing service references the new connect order for the new service;
- Moves of one location to a premise in a different serving office may result in a change in the monthly charges. Nonrecurring charges as appropriate are applicable.
- If the customer moves more than one location of the service concurrently, the customer will be liable for Termination Charges, as this is considered a complete disconnect of the service.



**OPT-E-MAN® Service (cont'd)**

(N)

**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 all of the following conditions are met:

- An upgrade is considered an increase in speed or capacity when comparing OPT-E-MAN Service to the new service.
- 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. Termination Charges for OPT-E-MAN Service at the current locations will be waived.
- The term of the new higher-speed service contract must be equal to or greater than the remaining time left on the existing OPT-E-MAN contract.
- The existing OPT-E-MAN Service must have been in service for a minimum period of 15 months for a 3-year contract or 18 months for a 5-year contract.
- For customers upgrading from OPT-E-MAN to Customized Switched Metro Ethernet (CSME) Service, the number of CSME locations must be greater than or equal to the current number of OPT-E-MAN locations.

(N)

**OPT-E-MAN® Service (cont'd)****F. Prices (cont'd)**

## 3. Termination Charges (cont'd)

Migration to AT&T Switched Ethernet Service<sup>SM</sup>

Customers subscribing to OPT-E-MAN Service may migrate to AT&T Switched Ethernet Service provided by the Company without incurring termination liability, subject to the following conditions: (C)

- 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 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 or greater than that of the existing service.
- The customer must issue a disconnect order for the replaced OPT-E-MAN Service to be effective within 90 days after the AT&T Switched Ethernet Service 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.

(C)

<sup>SM</sup> AT&T Switched Ethernet Service is a service mark of AT&T Intellectual Property.

**OPT-E-MAN Service (cont'd)**

(C)

**F. PRICES (cont'd)****4. Credit Allowance**

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

The Company's failure to provide or maintain services under this tariff shall be excused by labor difficulties, governmental orders, civil commotion, criminal actions taken against the Company, acts of God and other circumstances beyond the Company's reasonable control.

**OPT-E-MAN Service (cont'd)****F. PRICES (cont'd)****5. Customized Switched Metro Ethernet (CSME) Service<sup>/1/</sup>** (C)

The Company may offer a less-robust metro Ethernet offering (called Customized Switched Metro Ethernet (CSME) Service) limited to connection speeds of only 10 Mbps, 100 Mbps or 1 Gbps. The CSME offering will offer a switched Layer 2 Ethernet network for a single customer with the need to interconnect multiple locations within the metropolitan marketplace. There will be no Service Level Agreements (SLAs) offered with the service.

/1/ Effective November 30, 2018, Customized Switched Metro Ethernet (CSME) 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 CSME Service, and existing term plans may not be renewed, converted or extended. Following the expiration of a customer's existing CSME term agreement, service will be provided on a month-to-month basis at the applicable monthly extension rates until the service is discontinued. (N)