

AT&T OHIO GUIDEBOOK

PART 20 - Grandfathered Services
SECTION 6 - Central Office Services

1st Revised Sheet 1

1. DIGITAL TRUNK SERVICE

A. Description

Digital Trunk Service furnishes digital exchange access lines necessary for communicating within specified exchange areas via DS1 Service. A list of exchange areas appears in Part 4, Section 1 of this Guidebook.

Digital Trunk Service provides the equivalent of 24 exchange access lines between a customer's premises and the customer's normal serving central office. These 24 channels may be used as Trunk lines to PBX equipment, and may provide Direct Inward Dialing (DID) Service, Wide Area Telecommunications Service (WATS), or Success 800 Service^{/1/}. Touch-Tone Service is a standard feature of Digital Trunk Service.

(C)

B. Terms and Conditions

1. Digital Trunk Service is offered only from central offices where the Company has arranged facilities for such service.
2. DID Service must be provided on separate digital trunks that do not provide other trunk lines to PBX equipment.
3. DS1 Service central office multiplexing may be required in certain configurations of Digital Trunk Service. The Company will determine when central office multiplexing is required.

^{/1/} Effective December 31, 2021, WATS and Success 800 Service are withdrawn for residential customers.

(N)
(N)

1. DIGITAL TRUNK SERVICE (cont'd)**C. Prices****1. General**

- a. The rate structure for each Digital Trunk Service requires charges for a Digital Trunk (see 2. following), a DS1 Service local distribution channel, DS1 Service central office multiplexing (where required) and End User Common Line Charges (EUCL). These charges represent the physical components of the service.
- b. Central office features such as: Direct Inward Dialing (DID) Service, Wide Area Telecommunications Service (WATS), and Success 800 Service^{/1/} are available at their current rates. (C)
- c. Calls will be subject to the usage charges for the services provisioned on the channels. Measured service local message charges for usage will apply to Local Service Area calls provisioned on the channels. Message Toll charges will apply to calls outside the Local Service Area.

2. Service Elements

Description /Billing Code/	Nonrecurring Charge	Monthly Price
a. Digital Trunk /D7W/	\$1,500.00	\$4,220.00
b. Subsequent Change Charge	50.00	-

/1/ Effective December 31, 2021, WATS and Success 800 Service are withdrawn for residential customers.

(N)
(N)

1. DIGITAL TRUNK SERVICE (cont'd)**C. Prices (cont'd)****3. Other Applicable Charges and Payments**References:

Service	Reference	
DS1 Service	AT&T Ohio Guidebook Part 15, Section 3	
Wide Area Telecommunications Service and Success 800 ^{/1/}	AT&T Ohio Guidebook Part 10, Sections 1 and 2	(C)
End User Common Line Charges	Ameritech Operating Companies Access Service Tariff, F.C.C. No. 2, Section 4.1.7 (c)	
Measured Rate Service	AT&T Ohio Guidebook Part 4, Section 2 P.U.C.O. Tariff No. 20 Part 4, Section 2	
Message Toll Service	AT&T Ohio Guidebook Part 9, Section 1	

/1/ Effective December 31, 2021, Wide Area Telecommunications Service and Success 800 are
withdrawn for residential customers.

(N)
(N)

2. DIGITAL TRANSPORT SERVICE (DTS)**A. Description**

Digital Transport Service (DTS) provides a cost effective method of delivering voice grade service from the serving Central Office to a customer's premises. DTS is provided exclusively with DS1 Service (1.544 Mbps) and the 24 channels may be used for the transport of certain access lines for termination on customer-provided equipment. DTS supports Direct Inward Dialing (DID) Service, ValueLink Premier Service, Dedicated 800 Service, and PBX Trunks. Touch-Tone is a standard feature of DTS. DTS is an exchange service.

B. Terms and Conditions

1. DTS is offered in two serving arrangements, Integrated and Non-Integrated, from Central Offices where the Company has arranged facilities for such service.
 - a. Integrated Service is an arrangement that allows for the direct termination of digital trunks from a digital Central Office to customer-provided equipment. This arrangement supports Trunk side features only. The Integrated Arrangement is comprised of three elements:
 - (1) Trunk Terminations
 - (2) DS1 Distribution Channel and
 - (3) Digital Interface Termination.
 - b. Non-Integrated Service is an arrangement that allows for the termination of PBX trunks from an Analog or Digital Central Office to customer-provided equipment. This arrangement supports Trunk side and Line side features on those trunks. This arrangement is comprised of three elements:
 - (1) Trunk Terminations
 - (2) DS1 Digital Distribution Channel and
 - (3) Central Office Multiplexing.
2. Serving arrangements that require a mixture of Integrated and Non-Integrated terminations are provided as Non-Integrated Service.

2. DIGITAL TRANSPORT SERVICE (DTS) (cont'd)**B. Terms and Conditions (cont'd)**

3. The rate structure for DTS requires charges for Trunk Terminations, a DS1 local distribution channel, DS1 central office multiplexing or Digital Interface Termination (as required) and End User Common Line Charges (EUCL).
4. Additional charges for Central Office services and features such as Direct Inward Dialing (DID) Service, ValueLink Premier Service and Dedicated 800 Service are applicable when appropriate.
5. All signals generated by Network Channel Terminating Equipment (NCTE) must comply with the signal and format constraints contained in Telcordia Publication TR-NPL-000054. Performance parameters for DTS can be found in Technical Reference manual AM-TR-TMO-000101.
6. Availability and functionality of DTS may vary by serving Central Office and switch type. The Company will determine when Integrated or Non-Integrated terminations are required and whether DTS can be provisioned, or is compatible with, the customer's service and equipment.
7. If changes in Central Office technology permit the Company to convert a customer's Non-Integrated Termination to an Integrated Termination, the customer's rate will be adjusted to reflect the Integrated Termination rates. Nonrecurring charges are not applicable for Company initiated changes.
8. Clear Channel Capability as specified in Ameritech Operating Companies Access Tariff, F.C.C. No. 2, Section 6.1.3.A.3.d, is an optional feature of DTS, allowing the customer to transport maximum through put with no constraint on quantity or bit sequence.

2. DIGITAL TRANSPORT SERVICE (DTS) (cont'd)

C. Prices

The rates and charges for the services provisioned on the DTS channels are specified below.

Rates and charges for DS1 (1.544 Mbps) Service are specified in Part 15, Section 3, and are in addition to the charges specified in this section.

Calls will be subject to usage charges for the services provisioned on the DTS channels.

Termination charges are applicable for DS1 Service and Central Office Multiplexing, as specified in Part 15, Section 3.

Month-to-month service subscribers are subject to Company initiated rate charges.

2. DIGITAL TRANSPORT SERVICE (DTS) (cont'd)**C. Prices (cont'd)**

1. Service Elements

Description /Billing Code/	Nonrecurring Charge	Monthly Price
A. Integrated Service Arrangement Rates:		
DS1 Facility (see Guidebook reference in C.2 following)		
Digital Interface Termination /F12/		\$2,770.00 (I)
Per Trunk Termination (Channel)		
PBX Trunk /D5WPP/		145.00 (I)
DID Trunk /D5WPD/		385.00 (I)
Toll Terminal /D5WPT/		6.50
Dedicated 800 /D5WP1/		12.50
ValueLink Premier Service /D5WP0/		6.50
Subsequent Addition/Rearrangement Charge per trunk termination ^{/1/} /NR9DT/	\$10.00	

/1/ Apply a Service Order Charge as specified in Part 3, Section 1.

2. DIGITAL TRANSPORT SERVICE (DTS) (cont'd)**C. Prices (cont'd)****1. Service Elements (cont'd)**

Description /Billing Code/	Nonrecurring Charge	Monthly Price	
B. Non-Integrated Service Arrangement Rates:			
DS1 facility (see Guidebook reference in C.2 following)			
Central Office Multiplexing (see Guidebook reference in C.2 following)			
Per Trunk Termination (Channel)			
PBX Trunk /D5WPP/		\$145.00	(l)
DID Trunk /D5WPD/		385.00	(l)
Toll Terminal /D5WPT/		6.50	
Dedicated 800 /D5WP1/		12.50	
ValueLink Premier Service /D5WP0/		6.50	
Subsequent Addition/Rearrangement Charge per trunk termination ^{/1/} /NR9DT/	\$10.00		

/1/ Apply a Service Order Charge as specified in Part 3, Section 1.

2. DIGITAL TRANSPORT SERVICE (DTS) (cont'd)**C. Prices (cont'd)****2. Other Applicable Charges and Payments**

The rates and charges in C.1 preceding provide for the digital transport facility, multiplexing (as required) and the interface connection to the network. The additional rates and charges applicable for the specific services that can be provisioned on DTS channels can be found in the Guidebook references listed below.

References:

Service	Reference
DS1 Service	AT&T Ohio Guidebook Part 15, Section 3
ValueLink Premier Service	AT&T Ohio Guidebook Part 20, Section 9
Central Office Multiplexing	AT&T Ohio Guidebook Part 15, Section 3
Dedicated 800 Service	AT&T Ohio Guidebook Part 10, Section 2
Direct Inward Dialing (DID) Service	AT&T Ohio Guidebook Part 6, Section 1
End User Common Line Charges	Ameritech Operating Companies Access Services Tariff, F.C.C. No. 2, Section 4.1.7 (c)
Local Message Charges/Extended Community Calling Charges	AT&T Ohio Guidebook Part 4, Section 2 P.U.C.O. Tariff No. 20 Part 4, Section 2
Message Telecommunications Service	AT&T Ohio Guidebook Part 9, Section 1
PBX Trunk	AT&T Ohio Guidebook Part 4, Section 2
Toll Terminal	AT&T Ohio Guidebook Part 4, Section 5

3. PRIMENUMBER SERVICE

Effective April 30, 2001, new installations of Prime Number Service will no longer be made. Existing customers may retain this service until they change or disconnect their service.

A. Description

PrimeNumber Service is an optional intraLATA service that provides business customers with multiple locations, a single telephone number per LATA to terminate incoming calls. Calls to the single number are routed to the location nearest the calling party or as specified by the customer.

B. Definitions

Record - A record is an entry in the routing table or database which is necessary to route the incoming calls.

C. Terms and Conditions

The General Regulations of this Guidebook apply to PrimeNumber Service.

The General Regulations specify the Company's liability associated with interruptions to service and damages associated with the provision, maintenance, or restoration of PrimeNumber Service.

The following regulations apply to PrimeNumber Service in addition to those referenced above.

1. A prospective PrimeNumber Service subscriber must make separate arrangements for business Local Exchange Access Service prior to establishment of PrimeNumber Service.
2. PrimeNumber Service is available where facilities or arrangements permit.
3. PrimeNumber Service is only available on a twelve (12) month term basis. The twelve (12) month period will begin on the completion date of the Service Order.

3. PRIMENUMBER SERVICE (cont'd)**C. Terms and Conditions (cont'd)**

4. Applicable charges for local, toll, public or semi-public calls placed to an PrimeNumber will be billed to the originating party.
5. Additional listings are available at rates provided elsewhere in this Guidebook. (C)
6. A unique telephone number may be assigned to only one PrimeNumber Service subscriber within a LATA.
7. PrimeNumber Service is compatible with Caller ID Service network functionality. Caller ID Service is available to PrimeNumber Service subscribers where facilities permit at the applicable Guidebook rates.
8. With establishment of PrimeNumber Service, the subscriber will be provided with a SecureID access card. Additional or replacement SecureID cards will be available for a separate fee to be agreed upon by the Company and the subscriber.

SecureID cards provide the subscriber with access to the PrimeNumber Service network system in order to maintain or modify the subscriber Routing Table or Database, and to access standard PrimeNumber Service reports.

Upon receipt of the SecureID card(s), the subscriber 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 SecureID card(s).

3. PRIMENUMBER SERVICE (cont'd)**D. Features****1. Standard Feature(s)**

Where facilities permit, Standard Feature(s) will be provided as integral component(s) of PrimeNumber Service.

Basic Announcement

The Basic Announcement is activated when the network is unable to automatically identify and route the telephone number of the calling party. The Basic Announcement will prompt the calling party to enter the appropriate telephone number and then forward the call to an PrimeNumber Service subscriber location.

2. Optional Feature(s)

Where facilities and number availability permit, Optional Feature(s) will be made available to PrimeNumber Service subscribers at applicable rates.

Seven (7) Digit Option

Allows a PrimeNumber Service subscriber to serve customers in a LATA with multiple NPAs with a single seven (7) digit telephone number.

Day of Year and Time of Day Routing

Allows a PrimeNumber Service subscriber 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 PrimeNumber Service subscriber to select the location to which calls will be routed based upon the time of day and day of week that calls originate.

3. PRIMENUMBER SERVICE (cont'd)**E. Prices**

1. Service Elements

Description	Non-recurring Charge	Monthly Price
PrimeNumber Service, per LATA	\$295.00	\$125.00
- 7 Digit Option, per additional NPA	295.00	95.00
Routing Table or Database		
• Initial Development or Subsequent Reload		
- First 1,000 Records	80.00	-
- Each Additional 1,000 Records or fraction thereof	70.00	-
• Storage Fee		
- per record	-	0.02
• Maintenance (<i>Records Updated by the Company</i>)		
- First 50 Records	5.00	-
- Additional Records beyond the first 50, per record	0.07	-
Distribution/Routing Criteria, per Prime Number		
- NPA or NPA/NXX	75.00	50.00
- NPA/NXX-XXXX with Zip Code	125.00	75.00

3. PRIMENUMBER SERVICE (cont'd)**E. Prices (cont'd)****1. Service Elements (cont'd)**

Description	Non-recurring Charge	Monthly Price
Routing Options, per Prime Number		
- Day of Year and Time of Day	\$50.00	\$25.00
- Day of Week and Time of Day	50.00	25.00
Charge per Subscriber Route to Number/Location	-	10.00
Charge Per Call to Prime Number, per Subscriber Route To Number/Location		
Description	Price Per Call ^{/1/}	
Number of Calls per Month, per LATA		
1 - 15,000	\$0.12	
15,001 - 40,000	0.06	
40,001 - 80,000	0.055	
80,001 or greater	0.05	
Description	Price Per Minute	
Additional Minutes of Use		
Per Minute, for each minute of use beyond the first thirty (30) minutes of each message	\$0.04	

/1/ All calls are billed at the same rate for the billing period. The applicable Rate Per Call is determined by the volume rate schedule and the total number of calls during the billing period.

3. PRIMENUMBER SERVICE (cont'd)**E. Prices (cont'd)****2. Termination Charges**

PrimeNumber Service is only available on a twelve (12) month term basis.

In the event that a subscriber initiates a Service Order request for PrimeNumber Service, and subsequently cancels the Service Order prior to full operational establishment of service, the subscriber remains liable for all nonrecurring service establishment charges specified in this Guidebook.

Subscribers that cancel their PrimeNumber 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 Guidebook 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 twelve (12) month term period, subsequent monthly billing will revert to the PrimeNumber Service monthly rates in effect at that time, as specified in this Guidebook. Termination liability charges are no longer applicable once the term period has expired and billing reverts to a month-to-month basis.

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75

(C)

(D)

|

(D)

Effective July 16, 2005, no further installations, moves, rearrangements, or changes of any type will be made to ISDN X.25 and Dedicated X.75 Packet Service. Customers of record on July 16, 2005 may continue their service as long as such service remains at the location at which it was being furnished on the aforementioned date. In the event that these services are discontinued at their present location for any reason, they will not be reestablished.

The preceding supersedes all of the rules and regulations that follow.

A. General Description

The Packet Switched Network (PSN) combines packet switching technology and digital transmission facilities to provide a switched data carriage service. The PSN is designed to provide economical usage-sensitive data transmission for a variety of interactive (or bursty) data applications. The PSN provides for simultaneous two-way transmission of data at speeds up to 64 kilobits per second (Kbps). Customers can choose between the X.25 ISDN access arrangement, which permits PSN switching to any PSN switch in the LATA and the X.75 ISDN Interface Dedicated Access arrangement whose PSN switching is limited to a single ISDN switch in a LATA.

(C)

With packet switching technology, data streams are packetized and then moved through the network to their destinations. The packet network examines, routes, and transports packets individually without maintaining a physical path between bursts of data. In this way, greater volumes can be transported through shared network transmission facilities and individual data packets can be sent on alternate routes as the need arises, resulting in better system performance and higher network availability. The reduction in network facilities results in a more economical form of data transmission for interactive applications.

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd)

(C)

(D)

(D)

B. Regulations

1. Network User Identification (NUI) codes are assigned by the Company. One NUI is provided per Network Terminal Number (NTN) or dial access account when available upon request. Charges apply for each additional NUI code.

2. Idle time in excess of 20 minutes may generate a disconnect on all switched calls except Permanent Virtual Circuit calls.

(D)

(D)

3. All charges for customer traffic originating or terminating on an X.75 port will be billed to that port. The X.75 customer will be responsible for billing the appropriate user.

(C)

4. If it becomes necessary to disrupt service for scheduled maintenance reasons, the disruption will occur between the hours of 2:00 a.m. to 6:00 a.m., on Sunday. The disruption period will be only for the amount of time necessary to complete the maintenance and in all cases will be held to a minimum. Except for this scheduled service interruption, a credit allowance for interruptions to service will be given in accordance with Part 2, Section 2.

(C)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**B. Regulations (cont'd)**

5. The PSN requires the use of Customer Provided Equipment (CPE). This equipment, used in conjunction with the PSN port terminations, is subject to the limitations specified in the following Technical References: (C)

<u>Protocol</u>	<u>Technical Reference</u>	
ISDN	AM-TR-OAT-000068	(D) (D)

CPE used in association with the PSN is, in addition, subject to the limitations of the Technical References for Exchange Terminations. The following is a list of the Exchange Terminations available and their corresponding Technical References:

<u>Type Termination</u>	<u>Transmission Capability</u>	<u>Technical Reference</u>	
Digital ISDN	2400 bps to 64 Kbps Up to 64 Kbps	AM-TR-NPL-000007 AM-TR-NPL-000068	(D)

The Technical References may be obtained from:

APEX Support Team
(734) 523-7348

6. The 50% Evening, Weekend and Holiday discount is available in all compatibly equipped central offices. (C)
7. Verification of customer provided PADs and computer equipment may be required by the Company for PSN compatibility. (C)

The applicable PSN usage charges are:

- Data Transport Minutes of Use
- Data Transport Kilosegments
- Fast Select (if appropriate)

(D)
(D)
(D)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd)

(C)

C. PSN Access Arrangements (cont'd)

(D)

(D)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)

C. PSN Access Arrangements (cont'd)

(D)

(D)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd)

C. PSN Access Arrangements (cont'd)

1. ISDN X.25

ISDN provides access to the PSN via the customer's 16 Kbps D channel or 64 Kbps B channel. All applicable ISDN exchange charges are billed to the ISDN customer's exchange service. Collect calls are not accepted by the PSN.^{/1/}

(C)

ISDN uses the following protocol:

- X.25

The applicable PSN elements are:

- Optional Features

The applicable PSN usage charges are:

- Data Transport Minutes of Use
- Data Transport Kilosegments
- Fast Select (if appropriate)

/1/ Effective March 19, 2016, Collect, Person-to-Person, Bill to Third Number calls and Busy Line Verification/Interruption services are discontinued.

(N)

(N)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**C. PSN Access Arrangements (cont'd)****2. Dedicated X.75** (C)

Dedicated X.75 Access provides a permanent connection to the PSN via a dedicated private line channel as found in Part 15.

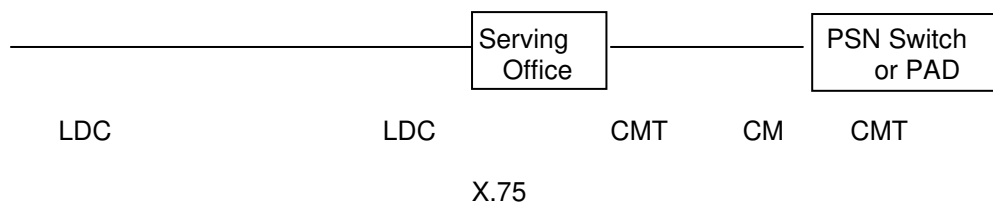
The following private line facilities are supported for Dedicated X.75 Access:

Digital - Requires a Base Rate or Direct Digital Service (DDS) Channel used for digital transmission as defined in the Part 15, Section 3.

Dedicated X.75 Access provides call origination and termination capabilities at speeds up to 56 Kbps.

Dedicated X.75 Access provides the capability of transmitting data using the following communication protocol:

- X.75



The applicable PSN elements are:

- Exchange Termination
- Port Termination
- Fast Select (if appropriate)

The applicable PSN usage charges are:

- ISDN Interface Minutes of Use
- ISDN Interface Kilosegments
- Fast Select (if appropriate)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd)

(C)

D. PSN Elements**1. Exchange Terminations**

Exchange Terminations are determined by the type of facility used to access the PSN. The exchange termination provides a central office end modem function for analog lines and a Data Service Unit/Channel Service Unit function for digital access lines.

2. Port Terminations

Port Terminations provide the communications interface for users accessing the PSN. They are protocol and speed specific. A NTN is provided at no charge with each Port Termination. The NTN assignment is independent of the customer's voice telephone number.

3. Optional Features

Certain optional features and functions are available depending on the serving packet switch.

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

Closed User Group (CUG) - A private group of users that limits communications to members within the group. The CUG allows its members to transmit and receive calls, service type permitting, to and from other members within the CUG.

Direct Call - Enables a user to automatically establish a virtual call to a predetermined NTN.

Fast Select Acceptance - Allows the customer to terminate fast select calls that originated from an end user's DTE. The fast select data is delivered to the terminating customer in the user data field of an incoming call packet. The terminating DTE then responds with either a call accepted packet or a call clear indication.

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd)

(C)

D. PSN Elements (cont'd)**3. Optional Features (cont'd)**

Hunt Group - An association of ports with a single or multiple NTN's. Two features are available. The homing feature allows terminating calls to be distributed sequentially over the ports. Non-homing allows terminating calls to be distributed equally over the ports.

Multiple Network Terminal Numbers - Permits the user to have additional DTE addresses per port, thereby, permitting incoming logical transmissions to be routed by the PSN to the appropriate DTE. The available quantity of this feature may be limited by the Company.

Network User Identification (NUI) - A numeric character string, defined by the Company, used as a log-on ID. In the case of the dedicated access, the NUI may correspond to the network address.

Permanent Virtual Circuit - Establishes a logical channel between two NTN's and remains indefinitely in the data transfer mode.

Reverse Charging - Allows the originating NTN's PSN usage and holding time charges to be billed to the terminating NTN on a per session basis. The call will be set up only if the terminating NTN is configured to accept charges.

Reverse Charging Acceptance - Authorizes the terminating NTN to accept PSN usage and holding time charges from an originating NTN.

(D)

(D)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**E. Usage Charges** (C)

(D)

(D)

1. Fast Select (C)

Allows for a call request, the transmission of data and call clearing in a single exchange of packets. These packets may contain up to 128 data octets in addition to the call request information.

2. Data Transport (C)

Charges apply for ISDN or Dedicated Access Arrangements whose PSN switch can connect to any PSN switch in a LATA. ISDN Interface usage charges apply for X.75 Dedicated Access Arrangements whose PSN switching is limited to a single ISDN switch in a LATA. (C)
(D)

Customers who access the network via dial ports or ISDN Packet Lines and transmit an average of 2.0 kilosegments or less of data per logical session per minute can choose between minutes of use (MOU) and kilosegment billing. Customers who transmit greater than an average of 2.0 kilosegments per logical session per minute will be billed for kilosegments transmitted. The average kilosegments per minute will be calculated for the billing period for rating purposes.

The measurement of a MOU session begins upon receipt of the call acceptance packet and ends upon receipt of the call clear packet. The minimum initial MOU session is seven tenths of a minute and additional usage is measured in tenths of minutes. MOUs will be accumulated for the billing period for rating purposes.

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**E. Usage Charges (cont'd)****2. Data Transport (cont'd)** (C)

Kilosegment measurement counts the number of segments transmitted. A kilosegment is 1000 segments. A segment has a billable length of 64 octets of customer information. The minimum initial session is 40 segments and additional usage is measured in segments. Segments are totaled at the end of the billing period and rounded to the next whole kilosegment for rating purposes.

3. ISDN Interface (C)

The ISDN Interface is for the purpose of allowing other networks to terminate directly onto an ISDN Integrated Packet Handler (IPH). This will give the other network access to the ISDN lines served by that IPH and only that IPH. They must connect on an X.75 port connection in addition to the digital private line.

(D)

(D)

4. Evening, Weekend and Holiday Discounts (C)

An evening, weekend and holiday 50% discount in rates will apply on the following:

- Holding time
- Data transport charge
- Protocol conversion charge
- Fast select (if appropriate)

The evening discount will apply for any portion of a call occurring Monday through Friday during the period from 4:00 P.M. up to but not including 7:00 A.M.

The weekend and Holiday* 50% discount will apply for any portion of a call through the entire day.

* The observed holidays are New Year's Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**F. Service and Equipment (S&E) Charges**

Nonrecurring charges (NRCs) for the Service Order, PSN Access facility, Exchange Termination and Optional Feature(s) apply for the installation of the PSN service.

The standard channel rearrangement charges apply for the rearrangement of PSN Access facilities. For other PSN service rearrangements, a Service Order charge and the NRC of the modified Exchange Termination and/or the added and/or modified Optional Feature(s) apply.

G. Rates and Charges

Description	USOC	Monthly Rate	Nonrecurring Charge
-------------	------	--------------	---------------------

1. Exchange Terminations

Digital

- 9.6 Kbps

VXDD9

\$30.00

\$45.00

- 56 Kbps

VXD56

30.00

45.00

(D)

(D)

(C)

(D)

(D)

(D)

(D)

(D)

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**G. Rates and Charges (cont'd)**

Description	USOC	Monthly Rate	Nonrecurring Charge	
2. Port Terminations				(C)
X.75 Protocol				(C)
- 2.4 Kbps	LHT7C	\$25.00	-	
- 4.8 Kbps	LHT7D	25.00	-	
- 9.6 Kbps	LHT7E	25.00	-	
- 56 Kbps	LHT7G	25.00	-	(D)
3. Optional Features				
a. Hunt Group	LDM	4.00	-	
b. Direct Call	LJD	1.00	-	
c. Reverse Charging Acceptance	LD4	-	-	
d. Fast Select Acceptance	LD5FS	-	-	
e. CUG Group	LDJ	-	-	
f. CUG Group Member	LGJ	1.00	-	
g. Additional NUI	LOGAX	-	\$20.00	
h. Additional NTN	LDQ	-	-	
i. Permanent Virtual Circuit	LDV	1.00	-	
j. Call Redirection	LRD	1.00	-	

4. PACKET SWITCHED NETWORK SERVICE – ISDN X.25 AND DEDICATED X.75 (cont'd) (C)**G. Rates and Charges (cont'd)**

Description	USOC	Rate	
4. Usage			(D)
			(D)
			(D)
a. Fast Select per Request		\$0.01	(C)
b. Data Transport Charge per 1/10 minute or fraction thereof	HRBM1	0.0015	(C)
c. Data Transport Charge per Kilosegment	HRBKX	0.24	(C)
			(D)
d. ISDN Interface Charge per 1/10 minute or fraction thereof	HRBMG	0.0005	(C)
e. ISDN Interface Charge per Kilosegment	HRBKG	0.08	(C)

5. DIGITAL SWITCHED NETWORK SERVICES

Effective July 16, 2005, no further installations, moves, rearrangements, or changes of any type will be made to Packet Switched Network Services, including Digital Switched Network Service. Customers of record on July 16, 2005 may continue their service as long as such service remains at the location at which it was being furnished on the aforementioned date. In the event that these services are discontinued at their present location for any reason, they will not be reestablished.

The preceding supersedes all of the rules and regulations that follow.

A. Reference To Technical Publications

The following technical publications are referenced and may be obtained from the APEX Support Team, at (734) 523-7348

Ameritech Technical Reference AM-TR-NPL-000002

Ameritech Technical Reference AM-TR-NPL-000003

Ameritech Technical Reference AM-TR-NPL-000007

Bell System Technical Reference Publication 41214

B. General Regulations**1. Definitions**Octet

Eight binary digits.

Call Initiation

The point where common control network facilities are initially allocated to the establishment of a specific switched virtual circuit.

Call Termination

The point where common control network facilities allocated to a specific switched virtual circuit are released for reuse by the network.

Consultative Committee International Telephone and Telegraph (CCITT)

A United Nations International Communications standards body.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****1. Definitions (cont'd)**Exchange Termination

A PSN Network component linking the access line and the Port Termination.

Kilosegment

One thousand segments.

Local Access and Transport Area (LATA)

The term "Local Access and Transport Area" (LATA) denotes a geographic area established for the provision and administration of communications service. It encompasses one or more designated exchanges, which are grouped to serve common social, economic and other purposes.

Logical Channel

A transmission path within the PSN access line.

Network Terminal Number (NTN)

Numeric character sequence used to identify the originating and terminating locations of each virtual circuit made within the network.

Network User Identification (NUI) Code

A numeric character string, defined by the company, used as a log-on ID. In the case of dedicated access, the NUI may correspond to the network address.

Packet Assembler/Disassembler (PAD)

The PSN network component which supports the customer interface functions, such as, but not limited to, call initiation and transmission interface functions.

Packet Network

Supports data transmission via ISDN X.25 and Dedicated X.75 Access.

Packet Switch

That part of the network which performs switching functions.

(C)

(D)

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****1. Definitions (cont'd)**(D)
|
(D)Permanent Virtual Circuit

A logical channel between two stations on the network. No call establishment, call termination, or network address are associated with a permanent virtual circuit.

Port Termination

A PSN Network component connecting the Exchange Termination to the PAD.

Protocol

A set of procedures for establishing and controlling transmission between two or more terminals. It involves a time sequence of events that must be followed for proper communication to take place.

The PSN Network supports the following protocols:

- X.25 Protocol

A form of protocol that allows for the establishment of many concurrent virtual calls over the same Network Access lines as outlined in the 1980 version of the CCITT Recommendation X.25.

- X.75 Protocol

A form of protocol that allows for the establishment of many concurrent virtual calls between packet networks as outlined in the 1980 version of the CCITT Recommendation.

Segment

Continuous sequence of binary digits of information which is switched through the network as an integral unit with additional transmission and error control. A segment is equal to 64 octets.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****1. Definitions (cont'd)**Switched Virtual Connection

A logical channel established as a result of call establishment procedure to a network address that exists until either end of the channel initiates the call termination procedure.

2. Application For Service

The Company will generally accept applications for service verbally during usual working hours on normal working days, however the Company reserves the right to require applications for service in writing on forms supplied by the Company.

a. Refusal to Provide Service

Service may be refused under the following conditions:

- Where an applicant has an outstanding account with the Company, the Company may reject an application for service until the amount due has been paid in full.
- In the event an applicant refuses to pay an advance payment or deposit requested by the Company.
- Upon objection to the furnishing of service to the applicant made by or on behalf of any governmental authority.

b. Cancellation of Applications for Service

When an application for new service or a request for additions, rearrangements, relocations, or modifications of service is cancelled before service is established or before the work involved has been completed, the applicant or customer may be required to reimburse the Company for all expense incurred in connection with the handling of the application or request before notice of cancellation is received. However, such charge shall not exceed all charges which would apply if the work involved with the application or the request had been completed, i.e., all applicable service connection charges, nonrecurring, and termination charges.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****3. Description of Service (cont'd)****a. General (cont'd)**

Digital Switched Network (DSN) Service may be used for the transmission of communications subject to the terms and conditions of this Guidebook. DSN Service will be provided subject to the availability of facilities within a LATA.

4. Denial or Termination of Service

- a. In the event of abandonment of the service, the non-payment of any sum due, abuse or fraudulent use of the service as set forth in C. following, any other violation of the regulations of the Company or upon objection to the continuance of service made by or on behalf of any governmental authority, the Company may either temporarily deny service or terminate the service. Subsequent to the completion of an order to discontinue service, such service will be reestablished only upon the basis of a new service application.
- b. When service is restored after temporary denial, the Company will make a pro rata allowance at the rates for the specific service denied for the entire period of denial, except that in cases where service is restored on or before the day following denial, no allowance will be made.
- c. Abuse or fraudulent use includes, but is not limited to:
 - The use of the service in such a manner as to interfere with the service of others or to prevent others from making or receiving calls over their telephone service;
 - The use of the service for any purpose other than as a means of communication;
 - Any attempt or assisting another to attempt, to obtain service through any fraudulent means or device whatsoever with intent to avoid the payment, in whole or part of the regular charge for such service;
 - The service furnished under this Guidebook shall not be used for any purpose or in any manner directly or indirectly in violation of the law or in aid of any unlawful act or undertaking.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****5. Special Services****a. Special Service Arrangements**

- The rates and charges quoted in this Guidebook contemplate the use of equipment and apparatus of a type and arrangement, which are considered standard by the Company.
- Special equipment is:
 - Equipment of a type not considered standard by the Company;
 - An arrangement of standard equipment not considered standard by the Company;
 - An assemblage of standard equipment not considered standard by the Company;
 - Any combination thereof;
 - A modification of standard equipment, either by way of an additional or supplemental item, device, or feature, or by way of an omission of an item, device, or feature, or by way of a modification which does not involve either an addition, a supplement or an omission; or
 - The use of equipment, otherwise standard, for a purpose for which such equipment is not considered standard by the Company; and for which specific rates or charges are not set forth in the Guidebooks of the Company, furnished in connection with communication service or equipment supplied to a customer under the provisions set forth in Company Guidebooks, because of the peculiar circumstances of the operations, location, or desires of such customer.

For the purposes of this definition, "equipment" includes circuits, channels and other facilities.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****5. Special Services (cont'd)****a. Special Service Arrangements (cont'd)**

- Special equipment or service arrangements requested by a customer will be furnished wherever possible, if the furnishing of such special equipment or service arrangements is not detrimental to any of the services or equipment of the Company and is not in conflict with prohibitions, limitations or restrictions set forth in Company Guidebooks. Such special equipment or service arrangements will be furnished by the Company at rates or charges based upon costs incurred.
- Where such special equipment or service arrangement consists of a modification of standard equipment or the use of equipment, otherwise standard, for a purpose for which such equipment is not considered standard by the Company, rates or charges based upon costs incurred may be determined by adding to the rates or charges applicable to said standard equipment the costs incurred in modifying, or adapting for special use, said standard equipment.

b. Overtime

The service connection, installation and nonrecurring charges specified in this Guidebook contemplate work being performed by the Company during the usual working hours on normal working days. When, at the specific request of a customer or applicant for service, work is performed at other times, either for the convenience of the customer or applicant for service or for other reasons not under the control of the Company, the expense incurred by the Company in excess of the normal expense of such work, when performed during usual working hours on normal working days, shall be billed to the customer or applicant for service, in addition to the charges otherwise applicable.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****6. Payment For Service****a. Customer Responsibility**

The customer is required to pay all charges for service and facilities in accordance with the Company's billing and collection practices. The customer will be held responsible for all charges for DSN Services and for all charges for telephone service rendered in connection with local or toll messages placed from his station.

b. Thirty Day Month

For the purpose of computing charges for facilities and service, and allowances for interruptions in service, every month shall be considered to have thirty days.

c. Advance Payments and Deposits**(1) Advance Payments**

The Company reserves the right to require applicants to make such advance payments as may be necessary for the protection of the Company's exchange and toll service revenues. The amount of the advance payment is credited to the customer's account as applying to any indebtedness under the contract.

(2) Deposits

The Company may, in order to safeguard its interests, require an applicant or a customer to make suitable deposits to be held by the Company as a guarantee of the payment of telephone service charges. Deposits for residential service shall be in accordance with Rule 4901:1-17 of the Code of Rules and Regulations of the Public Utilities Commission of Ohio. A copy of said Rule will be made available for inspection upon request.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)**

6. Payment For Service (cont'd)

c. Advance Payments and Deposits (cont'd)

(2) Deposits (cont'd)

The fact that a deposit has been made in no way relieves the applicant or customer from complying with the Company's regulations as to advance payments and the prompt payment of bills. At such time as the service is terminated, such amount of the deposit as is necessary will be applied to any indebtedness to the Company for telephone service charges. At the option of the Company, such a deposit may be refunded or credited to the customer's account at any time prior to termination of the contract. In case of a cash deposit, simple interest at the rate of three percent per annum will be paid for the period during which the deposit is held by the Company.

7. Responsibility of the Customer

a. The customer shall be responsible for:

- Damages to facilities of the Company caused by the negligence or willful act of the customer or authorized user;
- Reimbursing the Company for any loss through theft of the equipment or apparatus on the customer's or authorized user's premises;
- The provision of the power required to operate Company facilities installed on the premises of the customer or authorized user;
- The provision, installation and maintenance of sealed conduit with explosive-proof fittings between equipment furnished by the Company in explosive atmospheres and points outside the hazardous area where connection may be made with regular facilities of the Company, and may be required to install and maintain Company equipment within the hazardous area if, in the opinion of the Company, injury or damage to Company employees or property might result from installation or maintenance by the Company;

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****7. Responsibility of the Customer (cont'd)****a. The customer shall be responsible for: (cont'd)**

- Obtaining permission for Company agents or employees to enter the premises of the customer or authorized user at any reasonable hour for the purpose of installing, inspecting, repairing or, upon termination of the service, removing the facilities of the Company, and for;
- Making Company facilities available periodically for maintenance purposes at a time agreeable to both the Company and the customer. No allowance will be made for the period during which the service is interrupted for such purposes.

- b. Where DSN Service is available under this Guidebook for use in connection with customer-provided equipment or authorized user equipment, the operating characteristics of such equipment or systems shall be such as not to interfere with any of the services offered by the Company. Such use is subject to Part 68 of the Federal Communications Commission's Rules and Regulations and Part 2, Section 9 of the P.U.C.O. Tariff No. 20 and the further provisions that the equipment provided by a customer or authorized user does not endanger the safety of Company employees or the public; damage, require change in or alteration of the equipment or other facilities of the Company; interfere with the proper functioning of such equipment or facilities; impair the operation of the Company's facilities or otherwise injure the public in its use of the Company services. Upon notice from the Company that the equipment provided by a customer or authorized user is causing or is likely to cause such hazard or interference, the customer shall take such steps as shall be necessary to remove or prevent such hazard or interference.

Where a customer connects a customer-provided communications system to a DSN Service the customer shall be responsible for:

- Compatibility of the connected communications system; and the
- Testing and sectionalization and clearance of trouble conditions or service difficulties on any communications system which is connected to a DSN Service.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****7. Responsibility of the Customer (cont'd)**

- c. The service or any rights associated therewith may not be assigned or in any manner transferred, except as specified in the regulations for Assignment or Transfer of Services in Part 15, Section 1.

8. Responsibility of the Company

- a. The Company shall not be responsible for installation, operation or maintenance of any customer-provided equipment or communications systems provided by a customer or authorized user. DSN Service is not represented as adapted to the use of such equipment or system and where such equipment or system is connected to Company facilities, the responsibility of the Company shall be limited to the furnishing of facilities suitable for DSN Service and to the maintenance and operation of such facilities in a manner proper for such digital service. Subject to this responsibility the Company shall not be responsible for (1) the through transmission of signals generated by such equipment or system, or for the quality of, or defects in, such transmission or (2) the reception of signals by such equipment or systems.
- b. The Company shall not be responsible to the customer or authorized user, if changes in any of the facilities, operations or procedures of the Company utilized in the provision of DSN Service render any facilities provided by a customer or authorized user obsolete or require modification or alteration of such equipment or system or otherwise affect its use or performance.
- c. The Company undertakes to maintain and repair the facilities which it furnishes on the network side of the network interface. The customer or authorized user may not rearrange, disconnect, remove or attempt to repair any equipment installed by the Company on the network side of the network interface without prior written consent of the Company.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)**

9. Violation of Regulations

Where any customer-provided equipment or communications system provided by a customer or authorized user is used with services furnished by the Company and any rules and regulations as set forth in this Guidebook are violated, the Company will take such immediate action as necessary for the protection of its facilities, and will promptly notify the customer of the violation. The customer shall take such steps as are necessary to discontinue such use of the equipment or system or correct the violation and shall confirm in writing to the Company within 10 days, following the receipt of written notice from the Company, that such use has ceased or that the violation has been corrected. Failure to discontinue such use or to correct the violation and to give the required written confirmation to the Company within the time stated above shall result in suspension of the customer's service until such time as there is compliance with the provisions of this Guidebook.

10. Undertaking of the Company

a. Limitations

The restoration of service shall be in accordance with Part 64, Subpart D, Appendix A of the Federal Communications Commission's Rules and Regulations, which specifies the priority system for such activities. Subject to compliance with such Rules and Regulations, in case a shortage of facilities exists, either for temporary or protracted periods, the provision of exchange and message toll telephone services shall take precedence over all other services.

b. Liability

- The Company's liability, if any, for its willful misconduct is not limited by this Guidebook. With respect to any other claim or suit, by a customer, or by any others, for damages associated with the installation, provision, termination, maintenance, repair or restoration of service, and subject to the provisions of (2) through (4) following, the Company's liability, if any, shall not exceed an amount equal to the proportionate charge for the service for the period during which the service was affected. This liability for damages shall be in addition to any amounts that may otherwise be due the customer under this Guidebook as a Credit Allowance for a Service Interruption.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)**

10. Undertaking of the Company (cont'd)

b. Liability (cont'd)

- The Company shall be indemnified and saved harmless by the customer or authorized user against:
 - claims for libel, slander and infringement or copyright arising from the material transmitted over the facilities;
 - Claims for infringement of patents arising from combining with, or using in connection with, facilities furnished by the Company, apparatus and systems of the customer or authorized user; and
 - All other claims arising out of any act or omission of the customer or authorized user in connection with the facilities provided by the Company.
- The Company does not guarantee nor make any warranty with respect to equipment provided by it for use in an explosive atmosphere. The customer or authorized user indemnifies and holds the Company harmless from any and all loss, claims, demands, suits, or other action, or any liability whatsoever, whether suffered, made, instituted or asserted by the customer or authorized user or by any other party or persons, for any personal injury to or death of any person or persons, and for any loss, damage or destruction of any property, whether owned by the customer or others, caused or claimed to have been caused directly or indirectly by the installation, operation, failure to operate, maintenance, removal, presence condition, location or use of said equipment so provided.

The Company may require each customer or authorized user to sign an agreement for the furnishing of such equipment as a condition precedent to the furnishing of such equipment.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)**

10. Undertaking of the Company (cont'd)

b. Liability (cont'd)

- The Company is not liable for any defacement of or damage to the premises of a customer or authorized user resulting from the furnishing of channel facilities or the attachment of the instruments, apparatus and associated wiring furnished by the Company on such premises or by the installation or removal thereof, when such defacement or damage is not the result of negligence of the agents or employees of the Company.

c. Application of Construction Charges

All rates and charges set forth in this Guidebook provide for the furnishing of service where suitable facilities are available. Where construction is required in connection with services to be furnished by the Company, the regulations and charges set forth in Part 2, Section 5 will apply, except as specifically provided for in this Guidebook.

11. Initial Contract Periods

- a. The initial contract period applicable to each DSN Service is one month.
- b. When facilities are terminated by the customer, or by the Company for any reason for which it may terminate such items under the provisions of this Guidebook, prior to the expiration of the initial contract period, the termination charges will be the charges due for the unexpired portion of such initial contract period.

12. Application of Service and Equipment (S&E) Charges to Establish and to Change Service

- a. S&E charge is a nonrecurring charge that applies to service and equipment provided by the Company.
- b. The application of S&E charges to establish or change Digital Switched Network Services is covered in 12. following.

5. DIGITAL SWITCHED NETWORK SERVICES (cont'd)**B. General Regulations (cont'd)****13. Application of S&E Charges**

Description	Charge
a. S&E Charges to Establish Service	
The minimum S&E charge, per line, per occasion	\$64.00
The above S&E charge applies to the following services:	
- Packet Switched Network - Direct Access	
b. S&E Charges for Changes	
The minimum S&E charges shown below applies to each of the following changes	
S&E Charge, per line, per occasion	34.00
The above S&E charge applies to the following services:	
- Packet Switched Network - Direct Access	
- Packet Switched Network - Optional features per line, per occasion, as follows	24.50
Additional Logical Channel	
Call Redirection	
Direct Call	
Fast Select Acceptance	
Hunt Group	
Permanent Virtual Circuit	
Private Closed User Group	

(D)

(D)

(D)

(D)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E)

Digital Transport Service-Enhanced (DTS-E) will no longer be available to new customers (no current contract or service) on or after June 30, 2016. However, the Service will remain available for 9-1-1 Public Safety Answering Point (PSAP) customers that require channelization of their 9-1-1 trunking. It will be available to existing 9-1-1 PSAP users of the Service as well as new 9-1-1 PSAP customers needing the Service. With the noted 9-1-1- PSAP exception, customers having this service or who have placed orders which were accepted by the Company prior to this date, may continue such service from their present location, subject to the following conditions: new requests for physical changes to DTS-E, including the upgrade or downgrade of access/port speed, installation of new service, or moves to different service addresses will not be provisioned.

A. Description

Digital Transport Service - Enhanced (DTS-E) delivers voice grade service from a Company serving central office to a customer's premises. DTS-E is available in three serving arrangements, (C)
also known as Modules (see Paragraph D. in this Guidebook). DTS-E Modules 1, 2 and 3 are (C)
provided in conjunction with DS1 Service (1.544 Mbps). The 24 channels may be used for the (C)
transport of services for termination on customer provided equipment. (C)

B. Definition

(D)
—
(D)

DS1 Service

DS1 Service denotes the channelized 1.544 Mbps DS1 facility between a customer premises and the serving central office for that location. This element is used in conjunction with Modules 1, 2 and 3, and is purchased from Part 15, Section 3 of this Guidebook

(D)
—
(D)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**B. Definitions (cont'd)**

(D)

(D)

Term Payment Plan^{/1,2/}

A period of time selected by the customer from among those currently offered by the Company, over which the customer agrees to pay a specified price for a product/service.

C. Terms and Conditions

1. Digital Transport Service - Enhanced is offered from central offices where the Company has arranged for facilities for such service. At the request of the customer and at the discretion of the Company, DTS-E may be extended to central offices within the same Local Access Transport Area (LATA) through the application of DS1 Service, DS3 Service, OC-n Point-to-Point Service, OC-n Dedicated Ring Service or other suitable services. This arrangement is not available in Independent Telephone Company serving areas.
2. The availability, functionality and capabilities of DTS-E features may vary based on the serving central office.

/1/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/2/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)

/1/(C)

C. Terms and Conditions (cont'd)

3. The Company reserves the right to determine when trunk-side or line-side terminations are required and whether or not DTS-E may be provisioned with the customer's service and equipment. Serving central office limitations may require restricting certain customer applications to only trunk-side terminations.
4. Clear Channel capability is an optional DS1 feature that may be used in conjunction with DTS-E. Clear Channel allows the customer to transport 1.536 Mbps on a 1.544 Mbps line with no constraint on the quantity or bit sequence. Clear Channel nonrecurring charges, as noted elsewhere in this Guidebook, are applicable only when Clear Channel is ordered subsequent to initial installation of this service.
5. When a DTS-E subscriber is also the customer of record for the Company's high speed transport services, the DTS-E customer may request provisioning of DTS-E over their high speed transport service's vacant bandwidth.
6. The same customer of record is required for both DTS-E and the associated Company DS1 facility. Sharing of common transport or DTS-E arrangements between multiple customers is not permitted.
7. Base Rate non-switched 56 Kbps service may be limited by certain combinations of switch type, signaling and frame format, to a maximum of 12 channels per DTS-E DS-1 facility.

/1/

/1/ Material formerly appeared in Part 6, Section 7, Sheet 3.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**D. Features**

DTS-E is available in three serving arrangements and is furnished where facilities permit. (C)
Availability and functionality of DTS-E and its features may vary by serving central office and switch type.

Module 1

Module 1 is an arrangement that supports Business Trunk Services (e.g., 1-Way In non-DID, 2-Way Combination); toll terminals; Custom Dedicated 800 Service; and Foreign Exchange Service. Toll billing exclusion service and 900-976 Call Blocking are also available with Module 1.

Module 2

Module 2 supports all services provided in Module 1 plus Direct Inward Dialing (DID) Service.

Module 3

In addition to services supported in Module 1 and Module 2, Module 3 supports the following: Business Basic Exchange Service; Base Rate non-switched 56 Kbps Service; Direct Inward Dialing with Call Transfer Service; and Off Premises Extension Service. Call Waiting, Call Forwarding Variable, and Three-Way Calling are available with Business Basic Exchange Service.

(D)

(D)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)

/1/(C)

E. Technical References

Customer Provided Equipment (CPE) compatibility requirements are listed in Company Technical References. All Customer Provided Equipment used to interface with Digital Transport Service - Enhanced is required to conform with the Technical Reference specifications as used by the Company.

SubjectTechnical Reference

Network Channel Terminating Equipment
Digital Transport Service

TR-NPL-000054
AM-TR-TMO-000101

The Technical Reference can be obtained from:

APEX Support Team
(734) 523-7348

/1/

F. Prices

/2/

The following prices are applicable to standard installations of Digital Transport Service - Enhanced and are in addition to all other charges for associated services and equipment necessary to provide telecommunications service.

Refer to *Other Applicable Charges and Payments* section of this Guidebook for additional charges associated with the provision of Digital Transport Service - Enhanced.

/2/

/1/ Material formerly appeared in Part 6, Section 7, Sheet 5.

/2/ Material formerly appeared in Part 6, Section 7, Sheet 6.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)**

1. Service Elements

<u>Description</u>	<u>USOC</u>	<u>Non-recurring Charge</u>	<u>Monthly</u>	<u>Monthly Payment Term Payment Plan^{2,3/}</u>		
				<u>12 Months</u>	<u>36 Months</u>	<u>60 Months</u>
DS1 Facility						
- per module (see Guidebook reference in 2. following)						
Module 1 ^{/1/}						
- per DS1 equipped	EMZ1X	\$240.00	\$ 72,090.00 (I)	\$565.00	\$530.00	\$470.00
Module 2 ^{/1/}						
- per DS1 equipped	EMZ2X	280.00	89,930.00 (I)	720.00	655.00	595.00
Module 3 ^{/1/}						
- per DS1 equipped	EMZ3X	300.00	94,405.00 (I)	780.00	720.00	655.00

/1/ Rates for Modules 1, 2 and 3 include services and features supported by Modules 1, 2 and 3 as described in Paragraph 1.D. of this Guidebook. However, other charges may be applicable as noted in Paragraph 1.F. of this Guidebook.

/2/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/3/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)

F. Prices (cont'd)

1. Service Elements (cont'd)

(D)

(D)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)**

1. Service Elements (cont'd)

<u>Description</u>	<u>USOC</u>	<u>Non-recurring Charge</u>	<u>Monthly</u>	<u>Monthly Payment Term Payment Plans^{/1,2/}</u>		
				<u>12 Months</u>	<u>36 Months</u>	<u>60 Months</u>
Additional Equipment Charge						
- Module 1, 2, 3	FD5EX	\$240.00	\$16,320.00 (I)	\$110.00	\$110.00	\$110.00
			<u>Monthly</u>	<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>
Subsequent Additional/Rearrangement Charge:						
- Modules 1, 2, 3 per Channel	NR9DT	10.00				

/1/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/2/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)****2. Other Applicable Charges and Payments**

In addition to the DTS-E rates and charges noted above, the following rates and charges as specified elsewhere in this Guidebook or in P.U.C.O. Tariff No. 20 may also apply:

- Base Rate channel mileage, channel mileage termination charges, and local distribution channel charges for the terminating equipment
- Success 800 Service^{/3/} usage charges (C)
- DS1 recurring and nonrecurring charges
- DS1 Clear Channel nonrecurring charge
- Caller ID recurring charges
- DID Station Number recurring and nonrecurring charges
- Foreign Exchange channel mileage charges
- Off Premise Extension channel mileage charges
- Centrex Service recurring and nonrecurring charges
- Primary Interexchange Carrier Charge (PICC)/1/
- End-User Common Line charges^{/2/}

/1/ See Section 3 of Ameritech Operating Companies Tariff F.C.C. No. 2.

/2/ See Section 4 of Ameritech Operating Companies Tariff F.C.C. No. 2.

/3/ Effective December 31, 2021, Success 800 Service is withdrawn for residential customers. (N)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)

/1/(C)

F. Prices (cont'd)**2. Other Applicable Charges and Payments (cont'd)**

Where both a trunk-side and line-side connection is requested an Additional Equipment Charge as noted in 1 preceding is applicable.

The Per Channel Subsequent Addition/Rearrangement Charge as noted in 1 preceding, in addition to any applicable service connection charges normally associated with the installation or rearrangement of module services or features.

Local or Message Toll Service calls established through the use of DTS-E Service will be charged for at the rates specified elsewhere in this Guidebook.

A Business Service Ordering Charge as specified in Part 3, Section 1 of this Guidebook is applicable in addition to the Module Installation Charge.

/1/

/1/ Material formerly appeared in Part 6, Section 7, Sheet 11.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)****2. Other Applicable Charges and Payments (cont'd)**References:

The rates and charges in 1. preceding are for Digital Transport Service - Enhanced. Additional applicable rates and charges for services specified preceding can be found in the references listed below.

Service	Reference	
Base Rate Service	AT&T Ohio Guidebook Part 15, Section 3	
Business Basic Exchange Usage Service	AT&T Ohio Guidebook Part 4, Section 2	
Caller ID	AT&T Ohio Guidebook Part 7, Section 2	
	P.U.C.O. Tariff No. 20 Part 7, Section 2	
Success 800 Service ^{/1/}	AT&T Ohio Guidebook Part 10, Section 2	(C)
Direct Inward Dialing (DID) Service	AT&T Ohio Guidebook Part 6, Section 1	
DS1 Service	AT&T Ohio Guidebook Part 15, Section 3	
End-User Common Line Charges	Ameritech Operating Companies Tariff F.C.C. No. 2, Section 4.1.7(c)	
Foreign Exchange Service	AT&T Ohio Guidebook Part 15, Section 2	
Message Toll Service	AT&T Ohio Guidebook Part 9, Section 1	
Off Premises Extension Service	AT&T Ohio Guidebook Part 15, Section 2	

^{/1/} Effective December 31, 2021, Success 800 Service is withdrawn for residential customers.

(N)

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)****3. Payment Plans**Month to Month

The minimum period is one month, unless specified otherwise.

Term Payment Plans^{/1,2/}

The Term Payment Plan (TPP) is a plan which allows customers to pay a fixed price for equipment and service over optional periods. A different monthly price applies for the duration of each payment period. The monthly price varies inversely with the length of the payment period. The same payment plan must apply to all services and features.

DTS-E Modules 1, 2 and 3 Term Payment Plans are available for 1, 3 or 5 years.

(C)
(D)

During the effective term period, the monthly price is not subject to Company-initiated changes for payment periods longer than one month.

/1/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/2/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)

/3/(C)

F. Prices (cont'd)**4. Termination Charges ^{/1,2/}**

Customers subscribing to DTS-E under the Term Payment Plan (TPP) will remain liable for payment of a percentage of the monthly TPP charges for the remainder of the term as indicated below, which shall upon any such termination immediately become due and payable in its entirety.

Customers requesting termination of service prior to the expiration date of the TPP term will be liable for a termination charge.

The termination charge for all TPP terms will be calculated as follows:

- in addition to any unpaid Special Construction or Nonrecurring Charges (excluding waived charges), customer termination liability for cancellation of DTS-E Service shall be equal to fifty percent (50%) of all recurring charges for the remaining months of the customer's TPP term

/1/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/2/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

/3/ Material formerly appeared in Part 6, Section 7, Sheet 14.

/3/

7. DIGITAL TRANSPORT SERVICE - ENHANCED (DTS-E) (cont'd)**F. Prices (cont'd)****4. Termination Charges (cont'd)**

- Termination charges are not applicable to changes in the physical location of the customer's DTS-E services as long as the service originates in the same serving central office.
- Termination charges are not applicable if the customer converts their DTS-E Module 1, 2, or 3 service to another Company provided business exchange voice service that utilizes a Company provided DS1 or DS1 equivalent transport service as part of the service offering. The following terms and conditions apply to this termination charge waiver:
 - the customer must agree to a TPP^{/1,2/} that equals or exceeds the number of months remaining on the existing DTS-E Module 1, 2, or 3 TPP, and
 - the number of circuits on the new TPP must be equivalent to or exceed the number of circuits under the existing TPP, and
 - the new TPP shall begin immediately upon conversion from the existing TPP, and
 - the new service must be provided between the same customer locations and with the same customer of record as the disconnected service, and
 - nonrecurring charges for the new service will apply.

(D)
|
(D)

All termination charges will be based on the TPP prices in effect at the time of termination. Termination charges are applicable for DS1 Service used in conjunction with DTS-E Service Modules 1, 2 and 3, as specified in Part 15, Section 3 of this Guidebook.

/1/ Effective August 31, 2011, 36 Month and 60 Month Term Payment Plans are no longer available for new installations or renewals of DTS-E Modules 1, 2 and 3. DTS-E Module 1, 2 or 3 customers currently on a Term Payment Plan may continue service at their existing TPP rate until the contract term expires. Upon completion of the current contract term, customers may continue receiving the service by entering into a new 12 Month TPP agreement at the then current applicable 12 Month TPP rates. If the customer does not enter into a new 12 Month TPP agreement, or request discontinuance of the service, the month-to-month tariff rates in effect at such time will automatically apply.

/2/ Effective December 1, 2015, customers may not establish new Term Payment Plans (TPP) of any length for DTS-E Modules 1, 2 or 3, and existing TPPs may not be renewed. For new service, or for existing service after any TPP expires, service will be provided only on a month-to-month basis.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE

/2/(C)

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)

(N)

A. Description

/2/

Customized Switched Metro Ethernet (CSME) Service is a switched Layer 2 Ethernet network allowing for basic metropolitan Ethernet connectivity. CSME Service allows businesses to interconnect multiple customer locations within a LATA 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 facilities. CSME Service provides bandwidth of either 10 Mbps, 100 Mbps or 1 Gbps^{/1/}.

Customers connect to CSME Service via one of the following standard connections, as requested by the customer:

- 10/100 Base T (10 Mbps or 100 Mbps)
- Gigabit Ethernet (1000 Base SX, 1000 Base LX/LH or 1000 Base ZX)

Customers may connect multiple locations together, as long as they are in the same LATA or MAN and the service is available. This service acts as an Ethernet bridge supporting LAN-to-LAN connections.

CSME Service includes the connection from the customer's premise to the Ethernet network, a port on the Ethernet network and the bandwidth that will be used across the network. An optional feature is the ability to segregate customer traffic, as deemed necessary by the customer. This traffic segregation is accomplished using Ethernet Virtual Connections (EVCs), at an additional charge.

/2/

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

/2/

/2/

/2/ Material formerly appeared in Part 6, Section 9, Sheet 23.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

B. Terms and Conditions

In addition to regulations set forth elsewhere in this Guidebook, the following regulations apply to CSME Service:

1. CSME 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 CSME transport within the industry specification for the subscribed data service. See Paragraph E. – *Technical References* following.
3. CSME Service supports full duplex communication.
4. If a customer connects to the CSME network using a bridge or switch for Layer 2 connectivity, only 150 MAC addresses can be used per Layer 2 device, per port. Any additional addresses over the first 150 will be assessed an additional charge, with a limit of 200 MAC addresses total per port. An additional charge will be assessed per block of 151-200 addresses. See *Prices* following.
5. CSME Service is distance limited, based on circuit configuration as determined by the Company. A repeater may be used to extend the transmission of CSME Service. See Repeater under *Features (Optional)* following for further definition. See *Prices* following.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 24.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

B. Terms and Conditions (cont'd)

6. Should the customer wish to segregate traffic, a total of 8 Ethernet Virtual Connections (EVCs) may be configured per 10/100 Base T connection. A total of 64 EVCs may be configured per 1 Gbps connection. Should the customer request more than 64 EVCs on a 1 Gbps connection, a technical review will need to be conducted to determine whether the network will support more than 64 EVCs.
7. 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* following.
8. If the customer cancels service prior to installation being completed, a Service Order Cancellation charge (per port, per location) will apply. See *Prices* following. The customer's intent to cancel service must be made in writing.
9. CSME 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 CSME 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.
10. Service Level Agreements are not offered with this service. However, Credit Allowances are applicable. See *Prices* following.
11. Reserved for future use.
12. If the 10 Mbps or 100 Mbps connection is ordered, it will only be provisioned using the 10/100 Base T connection.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 25.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

B. Terms and Conditions (cont'd)

13. The responsibility of the Company shall be limited to furnishing the CSME 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 CSME 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 CSME 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.
14. Customers will be permitted to move from a 10 Mbps or 100 Mbps Connection to a 1 Gbps Connection, however, the Nonrecurring Charge associated with the new 1 Gbps Connection will apply. See *Prices* following.
15. The Company will use controls to limit the amount of multicast and broadcast traffic to protect the CSME 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. The Company recommends that customers enable controls for multicast, broadcast and unknown unicast traffic within the customer network(s).

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 26.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

C. Features**1. Standard Features**Usage, Port, Transport and Interface

Provides for the physical connection between the customer's premise and the serving wire center, as well as the bandwidth that will be used by the customer at each location. Several interface protocols are available: 10/100 Base T and Gigabit Ethernet (1000 Base SX, 1000 Base LX/LH or 1000 Base ZX).

2. Optional FeaturesAdditional MAC Addresses

Media Access Control (MAC) Addresses denote a data link layer protocol used for Layer 2 connectivity. If a customer connects to the CSME network using a bridge or switch for Layer 2 connectivity, only 150 MAC addresses can be used per Layer 2 device, per port. Any additional addresses over the first 150 will be assessed an additional charge, with a limit of 200 MAC addresses total per port. An additional charge will be assessed per block of 151-200 addresses.

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 network to terminate at the demarcation point at the second customer location. Customers use EVCs if they desire traffic segregation, but EVCs will not provide for traffic prioritization. EVCs may be ordered to establish additional virtual connections over the same physical connection. When EVCs are ordered, the customer must designate the amount of bandwidth to be assigned to each EVC. EVCs can be set in 1 Mbps increments from 5 Mbps to 1 Gbps.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 27.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

C. Features (cont'd)**2. Optional Features (cont'd)**Repeater

For those customers who are located outside normal transmission parameters, service can be provided using a repeater to be placed in Company wire centers. 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 CSME Service is subject to the availability and operational limitations of the equipment and associated facilities.

Meet-Point Billing Options

Meet-Point is available in two configurations:

Direct LEC Connection is provisioned using a standard CSME Connection, plus Mileage. The mileage is measured in airline miles from the CSME switch location to the ILEC (ICO) meet-point location.

GigE ICO Trunking Arrangement applies an ICO Trunk Connection Charge between the CSME 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 CSME switch location to the ICO meet-point location.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 28.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

D. Technical References

The customer interface to CSME Service is as specified in:

SubjectTechnical Reference

Ethernet Standards
Network Equipment Design Requirements

SBC TP-76412-000
SBC TP-76200MP

These publications may be obtained from:

APEX Support Team
(734) 523-7348

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 29.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/3/(C)

E. Prices

1. Service Elements

<u>Description</u>	<u>Nonrecurring Charge</u>	<u>Monthly Payment Term Payment Plans</u>		<u>Monthly Extension</u>
		<u>36 Months</u>	<u>60^{/2/} Months</u>	
Usage, Port, Transport, Interface, each customer location				
10 Mbps Connection /P9FYX/	\$1,600.00	\$1,170.00	\$1,100.00	\$1,550.00
- Subsequent 10 Mbps Connection ^{/1/} /P9FZX/	1,150.00	950.00	800.00	1,200.00
100 Mbps Connection /P9FKX/	1,925.00	1,665.00	1,600.00	2,500.00
- Subsequent 100 Mbps Connection ^{/1/} /P9FPX/	1,200.00	1,200.00	1,025.00	1,560.00
1 Gbps /P9FLX/	2,500.00	3,220.00	3,080.00	3,900.00

/3/

/1/ Any Subsequent 10 Mbps or 100 Mbps Connections must terminate at the same locations as the original 10 Mbps or 100 Mbps Connections.

/3/

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for CSME Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months.

/3/ Material formerly appeared in Part 6, Section 9, Sheet 30.

/3/

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/2/(C)

E. Prices (cont'd)

1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u>	<u>Monthly Payment Term Payment Plans</u>		<u>Monthly Extension</u>
		<u>36 Months</u>	<u>60^{1/} Months</u>	
<i>Optional Charges</i>				
Repeater				
- each /VU4/	\$250.00	\$400.00	\$375.00	\$475.00
			<u>Nonrecurring Charge</u>	<u>Monthly Price</u>
Ethernet Virtual Connection (EVC)				
- per connection /EVNDE/			\$70.00	\$25.00
Additional MAC Addresses				
- 151-200 MAC addresses /M2CAX/			70.00	5.00

/2/

/1/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for CSME Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months.

/2/

/2/ Material formerly appeared in Part 6, Section 9, Sheet 31.

/2/

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

E. Prices (cont'd)

1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge</u>
<i>Optional Charges (cont'd)</i>	
Service Order Cancellation - per location /OCGEO/	\$200.00
Expedite Order Charge - per location /EODEO/	300.00
Service Order Change Charge - applies to Bandwidth Usage Changes, EVC Changes and Configuration Changes for pending, initial service orders, per location /NHCEO/	75.00
Miscellaneous Change Charge - applies to Bandwidth Usage Changes, EVC Changes and Configuration Changes for subsequent changes to existing service, per location /NHCEN/	100.00

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 32.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/3/(C)

E. 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
Monthly Payment		
<i>Term Payment Plans</i>		
<u>Description</u>	<u>Nonrecurring Charge</u> ^{/1/}	<u>Monthly Extension</u>
	<u>36 Months</u>	<u>60^{/2/} Months</u>
- GigE ICO Trunking Arrangement		
ICO Trunk Connection Charge, per EVC		
10 Mbps	\$525.00	\$420.00
100 Mbps	800.00	840.00
1 Gbps	1,100.00	4,830.00
		4,100.00

/3/

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

/2/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for CSME Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months.

/3/ Material formerly appeared in Part 6, Section 9, Sheet 32.1

/3/

/3/

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

F. Prices (cont'd)

1. Service Elements (cont'd)

<u>Description</u>	<u>Monthly Price</u>
<i>Optional Charges (cont'd)</i>	
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	
10 Mbps	\$170.00
100 Mbps	375.00
1 Gbps	1,500.00
Above 25 and inclusive of 35 miles	
10 Mbps	270.00
100 Mbps	675.00
1 Gbps	1,750.00
Above 35 and inclusive of 50 miles	
10 Mbps	410.00
100 Mbps	1,100.00
1 Gbps	2,000.00

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 32.2.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/2/(C)

E. Prices (cont'd)**2. Payment Plans**

- Term Payment Plans

CSME Service is only available under the Term Payment Plan (TPP) whereby customers must select either a 36 or 60^{/1/} month period. Decreases in CSME 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.

- 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.

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

/2/

/1/ Effective November 15, 2013, customers may not establish new term plans greater than 36 months for CSME Service, and existing term plans greater than 36 months may not be renewed or extended for a term greater than 36 months.

/2/

/2/ Material formerly appeared in Part 6, Section 9, Sheet 33.

/2/

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

E. Prices (cont'd)**3. Termination Charges (cont'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 a CSME 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.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 34.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/2/(C)

E. Prices (cont'd)**3. Termination Charges (cont'd)**

Customers will be permitted to upgrade from CSME Service 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 CSME Service to the new service
- The customer must issue a disconnect order for the existing CSME locations 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^{/1/}. Termination Charges for CSME 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 CSME contract.
- The existing CSME 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 CSME to OPT-E-MAN[®] Service, the customer's network configuration must remain the same (i.e. multipoint CSME to multipoint OPT-E-MAN). The number of OPT-E-MAN locations must be greater than or equal to the current number of CSME locations.
- For customers upgrading from CSME to OPT-E-MAN Service, a minimum of 50% of the connection speed for each individual connection must be maintained:
 - If customer has a 1 Gbps CSME connection, then customer must purchase a minimum 500 Mbps OPT-E-MAN connection
 - If customer has a 100 Mbps CSME connection, then customer must purchase a minimum 50 Mbps OPT-E-MAN connection
 - If customer has a 10 Mbps CSME connection, then customer must purchase a minimum 5 Mbps OPT-E-MAN connection

/1/ The "90 day overlap in service" condition only applies to customers wishing to upgrade service installed after July 10, 2007.

/2/ Material formerly appeared in Part 6, Section 9, Sheet 35.

/2/

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

E. Prices (cont'd)**3. Termination Charges (cont'd)**Migration to AT&T Switched Ethernet ServiceSM

Customers subscribing to CSME Service may migrate to AT&T Switched Ethernet Service provided by the Company without incurring termination liability, subject to the following conditions:

- The new AT&T Switched Ethernet Service and the existing CSME 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 CSME 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.

/1/

SM AT&T Switched Ethernet Service is a service mark of AT&T Intellectual Property.

/1/ Material formerly appeared in Part 6, Section 9, Sheet 35.1.

8. CUSTOMIZED SWITCHED METRO ETHERNET (CSME) SERVICE (cont'd)

/1/(C)

E. 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 will be excluded from providing a Credit Allowance should any of the following conditions occur:

- Force majeure events such as, but not limited to, an earthquake, hurricane, flood, fire, storms, tornadoes, explosion, lightning, power surges or failure, fiber cuts, strikes or labor disputes, acts of war, civil disturbances, acts of civil or military authorities or public enemy, governmental orders, civil commotion, criminal actions taken against the Company, acts of God and other circumstances beyond the Company's reasonable control.
- The failures of any components beyond the local facility including the Network Interface (NI), the CSU/DSU/Channel band/Extended Demarcation are excluded from the service outage calculation.
- Data loss during the Company's scheduled maintenance window.
- Failures attributed to facilities or equipment provided by customer or its contractors, equipment vendors, another local exchange carrier or inter-exchange carrier.

/1/

/1/ Material formerly appeared in Part 6, Section 9, Sheet 36.

OPT-E-MAN® Service

/3/

Service Availability

(N)

Effective June 30, 2021, OPT-E-MAN Service will no longer be available for purchase by new or existing customers. In addition, requests to move, add, change, or renew existing service arrangements will not be accepted. Following the expiration of a customer's existing term agreement, service will be provided on a month-to-month basis at the applicable Monthly Extension rates until the service is discontinued. The Company currently plans to discontinue this service on or after June 30, 2023.

(N)

A. Description

/3/

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.

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)^{/1/}

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^{/2/}, 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.

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 is a registered trademark of AT&T Intellectual Property.

^{/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.

^{/3/} Material formerly appeared in Part 6, Section 9.

/3/

OPT-E-MAN® Service (cont'd)

/1/

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.

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.

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.

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.

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. /1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

B. DefinitionsJitter

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.

/1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

C. Terms and Conditions

In addition to regulations set forth elsewhere in this Guidebook, the following regulations apply to 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.
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.

/1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

C. Terms and Conditions (cont'd)

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.
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.

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 =

$$\frac{[24 \text{ hours} \times \text{days in month} \times 60 \text{ minutes} \times \text{number of customer sites}] - \text{network outage time (measured in minutes)}}{[24 \text{ hours} \times \text{days in month} \times 60 \text{ minutes} \times \text{number of customer sites}]}$$

- 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.

/1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

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:

- 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 (2) requesting a service credit.
- 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.

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:

- Force majeure events such as, but not limited to, an earthquake, hurricane, flood, fire, storms, tornadoes, explosion, lightning, power surges or failure, fiber cuts, strikes or labor disputes. 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.
- 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.
- 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).

/1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/4/

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).^{/1/}
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.
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.
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 (per EVC) between any two customer connections cannot exceed 600 Mbps per Basic or Basic Plus connection.^{/2/}

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.^{/3/}

/1/ This provisioning requirement will only apply to new service installed after April 30, 2007.

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

/3/ This provisioning requirement will only apply to new service installed after March 31, 2009.

/4/ Material formerly appeared in Part 6, Section 9.

/4/

OPT-E-MAN® Service (cont'd)

/2/

D. Features

1. Standard Features

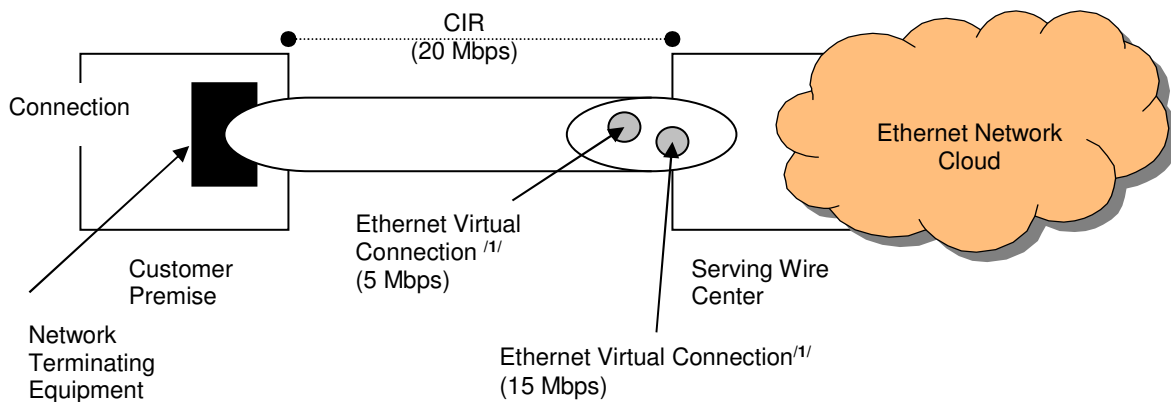
Committed Information Rate (CIR)

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.

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).

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.

/2/ Material formerly appeared in Part 6, Section 9.

/2/

OPT-E-MAN® Service (cont'd)

/2/

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^{/1/}. For multipoint-to-multipoint connections, EVCs can be set in 1 Mbps increments from 2 Mbps to 1 Gbps.

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.

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.

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

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.

/2/ Material formerly appeared in Part 6, Section 9.

/2/

OPT-E-MAN® Service (cont'd)

/1/

D. Features (cont'd)

2. Optional Features (cont'd)

Meet-Point Billing Options (EVC)

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.

E. Technical References

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

SubjectTechnical Reference

Ethernet Standards
Network Equipment Design Requirements

SBC TP-76412-000
SBC TP-76200MP

These publications may be obtained from:

APEX Support Team
(734) 523-7348

/1/

/1/ Material formerly appeared in Part 6, Section 9.

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

1. Service Elements

<u>Description</u>	Nonrecurring <u>Charge</u> ^{/1/}	12 <u>Months</u>	Monthly Payment <i>Term Payment Plans</i>			60 ^{/2/} <u>Months</u>	Monthly <u>Extension</u>
			24 <u>Months</u>	36 <u>Months</u>			
Connection, each customer location							
<u>Basic Service</u>							
10/100BaseT	\$1,925.00	\$780.00	\$750.00	\$650.00	\$575.00	\$1,685.81 (I)	
Gigabit Ethernet	2,100.00	1,200.00	1,150.00	1,000.00	850.00	2,551.50 (I)	
<u>Basic Plus Service</u>							
10/100BaseT	1,925.00	780.00	750.00	650.00	575.00	1,685.81 (I)	
Gigabit Ethernet	2,100.00	1,200.00	1,150.00	1,000.00	850.00	2,551.50 (I)	

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

/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.

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

1. Service Elements (cont'd)

<u>Description</u>	<u>Nonrecurring Charge^{/1/}</u>	<u>Monthly Price Grade of Service</u>		
		<u>Best Effort</u>	<u>Bronze</u>	<u>Silver</u>
Committed Information Rate (CIR) (Mbps) - per port				
2	\$75.00	\$464.74 (I)	\$546.75 (I)	\$911.25 (I)
4	75.00	537.64 (I)	637.88	1,002.38
5	75.00	N/A	820.13	1,184.63
8	75.00	847.46 (I)	1,002.38	1,366.88
10	75.00	N/A	1,184.63	1,549.13
20	75.00	N/A	1,640.25	2,004.75
50	75.00	N/A	1,868.06	2,232.56
100	75.00	N/A	2,187.00	2,551.50
150	75.00	N/A	2,505.94	3,234.94
250	75.00	N/A	2,870.44	3,599.44
500	75.00	N/A	3,462.75	4,191.75
600	75.00	N/A	4,055.06	4,784.06
1000	75.00	N/A	4,692.94 (I)	5,421.94 (I)

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

/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.

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

1. Service Elements (cont'd)

		Monthly Price Grade of Service				
<u>Description</u>		<u>Nonrecurring Charge</u>	<u>Best Effort</u>	<u>Bronze</u>	<u>Silver</u>	
<u>Optional Charges</u>						
Ethernet Virtual Connection (EVC) ^{/1/}						
- per connection		\$0.00	\$0.00	\$0.00	\$0.00	
		Monthly Payment Term Payment Plans				
<u>Description</u>	<u>Nonrecurring Charge^{/2/}</u>	<u>12 Months</u>	<u>24 Months</u>	<u>36 Months</u>	<u>60^{/3/} Months</u>	<u>Monthly Extension</u>
Repeater, each	\$250.00	\$400.00	\$375.00	\$325.00	\$300.00	\$865.69 (I)
		Monthly Price				
<u>Description</u>			<u>Nonrecurring Charge</u>	<u>Monthly Price</u>		
<u>Optional Charges (cont'd)</u>						
Additional MAC Addresses						
- 51-100 MAC addresses			\$70.00 ^{/2/}	\$9.11 (I)		
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/ 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^{/3/}-month Term Payment Plan (TPP) period for new service.

/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.

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>
<u>Optional Charges (cont'd)</u>		
Meet-Point Billing Options		
- Direct LEC Connection, Mileage		
Above 0 and inclusive of 10 miles	\$1,200.00	\$911.25 (I)
Above 10 and inclusive of 25 miles	1,200.00	1,822.50
Above 25 and inclusive of 35 miles	1,200.00	2,733.75
Above 35 and inclusive of 50 miles	1,200.00	4,556.25 (I)
<div> <div>Monthly Payment</div> <div>Term Payment Plans</div> </div>		
<u>Description</u>	<u>Nonrecurring Charge^{/1/}</u>	<div> <div>12</div> <div>24</div> <div>36</div> <div>60^{/2/}</div> <div>Monthly Extension</div> </div>
- GigE ICO Trunking Arrangement		
ICO Trunk Connection Charge, per EVC		
2 Mbps	\$300.00	\$340.00 \$290.00 \$250.00 \$220.00 \$729.00 (I)
4 Mbps	345.00	380.00 330.00 285.00 250.00 801.90
5 Mbps	400.00	430.00 370.00 315.00 270.00 911.25
8 Mbps	460.00	490.00 420.00 360.00 310.00 1,038.83
10 Mbps	525.00	570.00 490.00 420.00 360.00 1,202.85
20 Mbps	600.00	670.00 580.00 504.00 430.00 1,421.55
50 Mbps	700.00	840.00 730.00 630.00 540.00 1,767.83
100 Mbps	800.00	1,120.00 970.00 840.00 720.00 2,351.03
150 Mbps	925.00	1,670.00 1,450.00 1,260.00 1,080.00 3,517.43
250 Mbps	1,100.00	2,160.00 1,870.00 1,620.00 1,380.00 4,538.03
500 Mbps	1,100.00	4,640.00 4,030.00 3,500.00 2,980.00 9,732.15
600 Mbps	1,100.00	5,560.00 4,830.00 4,200.00 3,570.00 11,664.00
1 Gbps	1,100.00	6,390.00 5,500.00 4,830.00 4,100.00 13,413.60 (I)

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

/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.

OPT-E-MAN® Service (cont'd)**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	\$309.83	(l)
50 Mbps to 150 Mbps	683.44	
250 Mbps to 1 Gbps	2,733.75	
Above 25 and inclusive of 35 miles		
2 Mbps to 20 Mbps	492.08	
50 Mbps to 150 Mbps	1,230.19	
250 Mbps to 1 Gbps	3,189.38	
Above 35 and inclusive of 50 miles		
2 Mbps to 20 Mbps	747.23	
50 Mbps to 150 Mbps	2,004.75	
250 Mbps to 1 Gbps	3,645.00	(l)

OPT-E-MAN® Service (cont'd)

/2/

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^{/1/} 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.
- 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.

/2/ Material formerly appeared in Part 6, Section 9.

/2/

OPT-E-MAN® Service (cont'd)

/1/

F. Prices (cont'd)**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.

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.

/1/

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

F. Prices (cont'd)**3. Termination Charges (cont'd)**

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

Migration to AT&T Switched Ethernet ServiceSM

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:

- 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 to 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.

/1/

SM AT&T Switched Ethernet Service is a service mark of AT&T Intellectual Property.

/1/ Material formerly appeared in Part 6, Section 9.

OPT-E-MAN® Service (cont'd)

/1/

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 Guidebook 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.

/1/

/1/ Material formerly appeared in Part 6, Section 9.

