7.12 **Video Special Access Service**

7.12.1 **Service Description**

**Video Service**

Video Services are full motion video transport services that deliver high quality video images and stereo quality audio. There are two digital video transport offerings: Serial Component Video Service (SCVS), the first generation for delivering a high definition video signal, and High Definition Video Transport (HDVT), the second generation.

(1) **Serial Component Video Service (SCVS)**

SCVS is a standards based 270 Mbps digital video transport for the limited purpose of providing one-way transport of high quality digital video signals and audio signals.

The following standard formats are supported:

(a) Serial Digital Interface (SDI) ANSI/Society of Motion Picture and Television Engineers (SMPTE 259M); Audio embedding of either four analog audio channels at 20 KHz or two AES-EBU digital audio channels is available from the Telephone Company.

(b) Serial Data Transport Interface (SDTI SMPTE 305M); and

(c) Digital Video Broadcasting-Asynchronous Serial Interface (DVB-ASI).

The customer is responsible for combining multiple MPEG video program stream(s) into a transport stream and encapsulating this into a 270 Mbps DVB-ASI format.

SCVS is available on a point-to-point basis, or between a customer premises and a Telephone Company Hub location, where available.

SCVS is provided where facilities are available. Where facilities are not available, Special Construction may apply, as specified in this Guidebook.
(2) High Definition Video Transport (HDVT) (Cont’d)

HDVT provides one-way transmission of a digital video signal. HDVT is available on a point-to-point basis, or between a designated premises and a Telephone Company Hub (where available) via fiber optic facilities. HDVT is a purely digital format.

The following standard formats are supported:

(a) SMPTE 292M (1.485 Gbps);
(b) SMPTE 310M (19.39Mbps);
(c) ANSI/Society of Motion Picture and Television Engineers (SMPTE 259M);
(d) Serial Data Transport Interface (SDTI SMPTE 305M); and
(e) Digital Video Broadcasting-Asynchronous Serial Interface (DVB-ASI).

The customer can transmit video signals using any of the standard formats listed above; the network terminating equipment is designed to automatically detect and send the correct format.

HDVT will support the transport of digital video with or without embedded audio. Audio embedding or de-bedding is the customer responsibility.

HDVT is provided where facilities are available. Where facilities are not available, Special Construction charges may apply as specified in Part 1, Section 8 of this Guidebook.

7.12.2 Optional Features and Functions

(A) Video Regenerator

Video Regenerators provide for the regeneration of the digital video signals. The Video Regenerator is available for Serial Component Video Service (SCVS) and High Definition Video Transport (HDVT). A Video Regenerator will be required for SCVS or HDVT when the distance between the designated SCVS or HDVT end user premises is greater than the single system optical power budget.
7.12.2 Optional Features and Functions

(B) Optical, Wavelength and Ethernet Handoff Options and Interfaces

(1) Optical, Wavelength and Ethernet Handoff Options
These options are available with SCVS and HDVT. The Telephone Company will encapsulate the Customer’s digital video signal into an Optical (e.g., OC-3c or OC-12c), Wavelength or Ethernet transport stream. The service will either (i) originate as an electrical or standards-based SCVS or HDVT video signal at one end, and terminate as an Optical, Wavelength or Ethernet signal at the other end, or (ii) originate as an Optical, Wavelength or Ethernet signal at one end, and terminate as an electrical or standards-based SCVS or HDVT video signal at the other end. The available bandwidths for the Optical, Wavelength and Ethernet handoffs and the rates payable therefore are listed in the Rates and Charges section (Section 7.12.5(c)).

In certain conditions where facilities are available, the Telephone Company may design transport streams to deliver multiple SCVS or HDVT circuits in the same Optical, Wavelength or Ethernet transport stream, to or from the Customer venue. This design is subject to the availability of suitable bandwidth in the Telephone Company’s network.

(2) SMPTE 310M Digital Interface - SCVS
This interface is available with SCVS and provides Customers with the ability to handoff a standard 19.4 Mbps SMPTE 310M interface at the transmit end of the SCVS circuit. The Telephone Company’s output at the other end will be a 270 Mbps DVB-ASI video signal.

(3) NTSC Analog Interface - SCVS
This interface is available with SCVS and provides Customers with the ability to have an NTSC interface with up to four analog audio channels at 20 KHz at one end of the service. This option is available at either end of the SCVS circuit. The interface at the other end will be an SDI video signal as described in the SCVS service description above.

(4) Multi Media Channel - HDVT
Multi Media Channel (MMC) enables Customers of HDVT service to transmit up to 1 Gbps of data via a point-to-point data channel. Customers must subscribe to at least one HDVT circuit to use the MMC feature.

The MMC feature provides a Layer 2 (Ethernet) data channel with a specified capacity of up to 1 Gbps between the same two locations as the HDVT circuit with which it is associated.

The MMC handoff may be optical or electrical depending on the service requested and equipment available. If the associated HDVT circuit has been purchased with an Optical, Wavelength or Ethernet Handoff option, the handoff to the Customer of the HDVT circuit and the associated MMC feature will be a single encoded video/data transport stream. The combined bandwidth of the HDVT circuit and the associated MMC feature cannot exceed the available bandwidth of the applicable Optical, Wavelength or Ethernet Handoff option purchased by the Customer.

Customers requesting MMC associated with an HDVT circuit and the Optical, Wavelength or Ethernet Optical Handoff option will be responsible for doing their own encoding or decoding at the handoff end. Customers may only use the MMC to transport data content related to the video content being transported on the associated HDVT circuit (and other HDVT circuits between the same two locations).
7.12.2 Optional Features and Functions (Cont’d)

(C) **Diversity Options**

Diversity options are available where facilities exist. If appropriate facilities do not exist, Special Construction charges may apply. End-to-end diversity can be achieved by coupling Alternate Wire Center Diversity with Inter Wire Center Diversity.

HDVT and SCVS offer four diversity options:

1. **Local Channel Diversity (LCD)**

   LCD provides for a transmission path between a designated customer premises and the standard serving wire center (SWC) that is diverse from the normal/standard transmission path. LCD requires two HDVT or SCVS services purchased by, or on behalf of, the same customer. With this arrangement, one or more local distribution channels will be provisioned over the standard route, and one or more local distribution channels will be provisioned over the diverse route. LCD does not provide for full diversity; it only allows for diversity from the splice point closest to the customer’s property line to the SWC. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer’s premises, at the customer’s expense. One LCD rate element applies for each channel termination.
(C) Diversity Options (Cont’d)

(2) Inter-Wire Center Diversity (IWCD)
IWCD arrangements presume that each end of a HDVT or SCVS local distribution channel is served out of a different serving wire center (SWC). This arrangement provides a transmission path between the customer’s designated SWC and the SWC at the distant end of the circuit, over a transmission path that is separate from the standard transmission path between the two wire centers. Interoffice mileage will be calculated between the intermediate WC along the circuit path of the diversely routed HDVT or SCVS service. IWCD requires two HDVT or SCVS services purchased, by or on behalf of, the same customer. IWCD does not provide for full diversity; it only offers interoffice diversity. If a customer desires full diversity, Alternate Wire Center Diversity must be implemented along with IWCD. Additionally, arrangements must be made for constructing dual entrance facilities at the customer’s premises, at the customer’s expense.

(3) Alternate Wire Center Diversity (AWCD)
AWCD is for the local loop only. It provides a local channel transmission path for HDVT or SCVS service between the customer’s designated premises and a wire center that is not the customer’s standard serving wire center. The Telephone Company will choose the alternate wire center closest to the customer’s designated premises that is capable of providing HDVT or SCVS service over the alternate route. AWCD does not require the purchase of two HDVT or SCVS services by, or on behalf of, the same customer, nor does it require the customer to have an existing HDVT or SCVS circuit operating over the standard route to the customer’s standard serving wire center. With this arrangement, one or more local distribution channels will be provisioned over the alternate route. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer’s premises, at the customer’s expense. One AWCD rate element applies for each channel termination.

(4) Equipment Only Diversity (EOD)
EOD allows for a HDVT or SCVS circuit to terminate on separate equipment from another HDVT or SCVS circuit. The diverse circuit will be provisioned on its own equipment, i.e., separate laser, separate encoder/decoder, chassis, and separate power supply.

The customer must order at least two circuits, and request that one of the circuits terminate on different equipment from the other circuit(s). A circuit subscribing to EOD will not be provisioned over a diverse route unless the customer orders one of the diversity options (local channel, alternate wire center, or inter-wire center). EOD may be selected for one or both terminating ends. One EOD rate element applies for each channel termination.
7.12.4 Serial Component Video Service (SCVS) and High Definition Video Transport (HDVT) Term Pricing Plan (TPP) (M)

(A) General Description

The Serial Component Video Service (SCVS) Term Pricing Plan is a term plan that allows customers to purchase SCVS over a 1, 3, or 5 year term period. High Definition Video Transport (HDVT) can be purchased over a 1, 2, 3 or 5 year term period.

If the Telephone Company initiates rate changes resulting in a decrease of rates for an existing service with a 1, 2, 3 or 5 year term period, those rate changes will be passed along to the customer. Rate changes resulting in an increase of rates for an existing service with a 1, 2, 3 or 5 year term period will not exceed the original rate for that selected term period.

SCVS is provided between customer designated premises or between a customer premises and a Telephone Company hub location.

(B) Expiration of the SCVS and HDVT TPP

At the expiration of the SCVS or HDVT TPP term, the customer may select a new SCVS or HDVT TPP at the prevailing SCVS or HDVT TPP rates. If a customer does not wish to purchase a new SCVS or HDVT TPP at the expiration of the term, the customer’s service will automatically convert to the prevailing month-to-month rates.

(C) Termination of Service

In the event service is terminated prior to the expiration of the minimum service period, termination charges, as specified below, will apply.

The termination percentage applied will be 60%.

The termination charge is calculated as follows:

\[(\text{Monthly recurring rate}) \times (\text{Months remaining in SCVS or HDVT TPP}) \times (\text{Termination percentage}) = \text{Termination Charge}\]

For example: A customer with a $2,000 monthly rate terminates service with 5 months remaining in 3 year service period. The termination charge would be calculated as follows:

\[\$2,000 \times 5 \times .60 = \$6,000\] (M)
(D) Moves

Early termination liability will not apply when a customer requests moves of SCVS or HDVT service from one premises end point to another end point in a different building within the same LATA provided the following conditions are met.

1. The customer must currently subscribe to a 3 or 5-year Term Pricing Plan at the existing location.

2. The customer must have completed at least 15 months of the 36 month term or 18 months of the 60 month term.

3. For service at the new location, customer subscribes to a new Term Pricing Plan that is equal to or greater than the remaining months in the existing term.

4. Nonrecurring installation charges will apply at the new location, where applicable.

5. The move from the original location must be completed within thirty (30) days of the original premises disconnect date contingent on availability of fiber from premise to premise.

6. Orders from customer to disconnect the existing service and reestablish it at the new location must be placed by customer and received by the Telephone Company at the same time.

7. Fiber, equipment and other required facilities must be available at the new location or special construction charges may apply.

(E) Upgrades

An increase in speed, when compared to the existing service, is considered an upgrade. During a customer’s TPP term, service upgrades may be made without termination charges. Existing SCVS customers may convert to higher speed HDVT service.

All of the following conditions must be met to upgrade service without incurring termination charges:

1. The customer must issue a disconnect order for the existing SCVS service and place a service order for the new higher speed video service at the same locations such that there is no more than 60 days overlap between the two services.

2. The same locations must be utilized for the new higher-speed video service.

3. The customer must subscribe to a new TPP term that is greater than or equal to the remaining months in the existing term for the lower speed service.

4. The existing SCVS service must have been in service for a minimum period of 15 months for a 3-year term, or 18 months for a 5-year term.

5. Nonrecurring charges will apply where applicable.
### Rates and Charges

**7.12.5** Serial Component Video Service (SCVS) Term Pricing Plan (TPP)

<table>
<thead>
<tr>
<th>Service Description</th>
<th>USOC</th>
<th>Monthly</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
<th>1st Ckt</th>
<th>Add’l Ckt</th>
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<td></td>
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<tr>
<td>(270 Mbps)</td>
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<td></td>
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<td>$575.00</td>
<td>$500.00</td>
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<td>$500.00</td>
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<td>(b) Channel Mileage</td>
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<td>$28.00</td>
<td>$28.00</td>
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<td>$352.00</td>
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<tr>
<td>- Regenerator</td>
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**- Optical, Wavelength and Ethernet Handoff Options and Interfaces** (C)

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<th>USOC</th>
<th>Monthly</th>
<th>1 Year</th>
<th>3 Year</th>
<th>5 Year</th>
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<td>VO3X</td>
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<td>$700.00</td>
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<td>OC-48 Handoff</td>
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<td>2.5Gbps Ethernet/Wavelength Handoff</td>
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<td>$625.00</td>
<td>$700.00</td>
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<td>10Gbps Ethernet Handoff</td>
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**- Diversity Options** (Rates apply per channel termination unless stated otherwise)

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<th>5 Year</th>
<th>Nonrecurring Charge</th>
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<td>Local Channel Diversity</td>
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<td>Alternate Wire Center Diversity</td>
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<td>$420.00</td>
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<td>Equipment Only Diversity</td>
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**Footnote:** Nonrecurring charge is waived when feature is ordered and installed concurrently with the associated Channel Termination.
### 7.12.5 Rates and Charges

#### (B) High Definition Video Transport (HDVT) Term Pricing Plan (TPP)

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<th>3 Year</th>
<th>5 Year</th>
<th>Nonrecurring Charge&lt;sup&gt;(1)&lt;/sup&gt;</th>
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<td>Regenerator</td>
<td>V8R</td>
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<td></td>
<td>Optical, Wavelength and Ethernet Handoff Options</td>
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<tr>
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<td>OC-48 Handoff</td>
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<tr>
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<td>2.5Gbps Ethernet/Wavelength Handoff</td>
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<td>10Gbps Ethernet Handoff</td>
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<td></td>
<td>Multi Media Channel &lt;sup&gt;(1,3)&lt;/sup&gt;</td>
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<td>Diversity Options</td>
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<td>(Rates apply per channel termination unless stated otherwise)</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Local Channel Diversity</td>
<td>CPAMX</td>
<td>$410.00</td>
<td>$350.00</td>
<td>$300.00</td>
<td>$260.00</td>
<td>$225.00</td>
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<tr>
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<td>Alternate Wire Center Diversity</td>
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<tr>
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<td>Inter-Wire Center Diversity (Per Circuit)</td>
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<td>Equipment Only Diversity</td>
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<td>$370.00</td>
<td>$320.00</td>
<td>$270.00</td>
<td>$245.00</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> Nonrecurring charge will not apply when the customer subscribes to a 2-Year or longer Term Pricing Plan.

<sup>(2)</sup> Nonrecurring charge is waived when feature is ordered and installed concurrently with the associated Channel Termination.

<sup>(3)</sup> Nonrecurring charge is waived when feature is ordered and installed concurrently with the associated HDVT Channel Termination.
7.17 Gigabit Ethernet Metropolitan Area Network (GigaMAN®)

7.17.1 General Description

GigaMAN® is a fiber based, point-to-point, gigabit Ethernet service that allows customers to transport data signals between local area networks (LANs). GigaMAN® transports data signals at the rate of 1 gigabit per second (Gbps). All basic service configurations provide a single direction of transmission.

The following conditions will apply to GigaMAN®:

(A) This service is available to Customers in select areas within the LATAs served by the Telephone Company.

(B) If existing facilities do not exist Special Construction will apply.

(C) The Telephone Company considers a service interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this Guidebook in the event that the protective controls applied by the Telephone Company result in the complete loss of service by the customer. An interruption period starts when a customer reports an inoperative service to the Telephone Company and the Telephone Company confirms that continuity has been lost, and ends when the service is operative.
(C) Service Provisioning

(1) The customer provided equipment (CPE) must deliver the data signals for GigaMAN® transport for the subscribed data service.

(2) GigaMAN® provides physical layer transport only. The Telephone Company assumes no responsibility for the through transmission of signals generated by the CPE, for the signals by the CPE, or address signaling to the extent the CPE performs addressing. Error detection and correction of data generated by the CPE is the customer’s responsibility.

7.17.2 Channel Configuration

There are six (6) basic rate elements, which apply to GigaMAN® service:

(A) Local Distribution Channel (LDC)

Local Distribution Channel (same as Channel Termination) is the termination of GigaMAN® at a customer designated premise (node), as described in Part 2, Section 7 of this Guidebook, consisting of the following two elements:

(1) the termination for the fiber optic facilities at each node and its serving wire center.

(2) the fiber optic facility between each node and its serving wire center.

(B) Interoffice Mileage

Interoffice Transport facilities, which provide the transmission path between Serving Wire Centers associated with two customer designated premises, are comprised of Fixed and Per Mile rate elements.
(C) Repeater

Repeaters (Circuit Regenerators) provide essential detection and retransmission of GigaMAN® signals. Repeaters are provided as required by the Telephone Company when actual fiber facility loss between customer designed premises and/or central office locations exceed design limits. Repeaters will be located exclusively in Telephone Company central offices and are required for each successive transport segment of approximately 21.4db.

When protection options are ordered, as set forth in Part 2, Section 7 of this Guidebook, additional repeaters may be necessary on the protected path as determined by the Telephone Company. The Repeater rate element will be applied to a protected circuit per fiber pair.

(D) Local Channel Diversity

Local Channel Diversity provides for a transmission path between a designated customer premises and the standard service wire center (SWC) that is diverse from the normal/standard transmission path. With this arrangement, one or more local distribution channels will be provisioned over the standard route and one or more local distribution channels will be provisioned over the diverse route. Local channel diversity does not provide for all diversity, it only allows for diversity from the splice point closest to the customer’s property line to the SWC. If a customer desires full diversity, arrangements must be made for constructing dual entrance facilities into the customer’s premise, at the customer’s expense.
(E) Inter-Wire Center (IWC) Diversity

Inter-Wire Center (IWC) Diversity arrangements presume that each end of a GigaMAN® local distribution channel is serviced out of a different serving wire center (SWC). This arrangement provides a transmission path for GigaMAN® local distribution channels between the customer’s designated SWC and the SWC at the distant end of the circuit over a transmission path that is separate from the standard transmission path between the two wire centers. IWC diversity does not provide for full diversity. It only offers interoffice diversity. If a customer desires full diversity, Alternate Wire Center Diversity must be implemented along with IWC Diversity. Additionally, arrangements must be made for constructing dual entrance facilities at the customer’s premises, at the customer’s expense.
(1) Inter-Wire Center (IWC) Diversity Mileage Measurement

Mileage measurements for Access Services provisioned via an Inter-Wire Center Diversity, will be based on the special routing; i.e. mileage measurements will be calculated between the Intermediate Serving Wire Centers along the circuit path of the Diversely routed GigaMAN® service.
Alternate Wire Center Diversity

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

If the circuit routed to the alternate wire center has Interoffice Mileage, measurements will be based on the special routing; i.e., mileage measurements will be made to the alternate wire center rather than the serving wire center from which the customer designated premises would normally obtain dial tone.
7.17.3 Non-recurring Charges

Non-recurring charges are one-time charges that apply for specific work activity related to the provisioning of GigaMAN Service, as described in Part 2, Section 2 of this Guidebook.

7.17.4 Recurring Charges

Recurring Charges are rates that apply each month or fraction thereof that the service is provided. Recurring rates apply to 12-, 36-, or 60-month period under the terms and conditions of Term Pricing Plan (TPP), discussed in Section 7 of this Guidebook.

7.17.5 Monthly Extension Rates

Upon completion of a TPP, customer’s service will automatically convert to the Monthly Extension Rates unless the customer requests a new TPP.

7.17.6 Term Pricing Plan (TPP)

GigaMAN is available for 12-, 36-, or 60- month periods. Monthly recurring charges apply for Local Distribution Channels (TMECS), Interoffice Transport Fixed Mileage (IL5XX), and Mileage (IL5XX) where appropriate.

A. Renewals

At the end of a TPP period, the customer must select one of the following options within one month prior to the expiration date:

1. Renew the service for a one, three, or five year TPP as provided in this Guidebook;
2. Elect to disconnect the service upon expiration of the billing period; or
3. Continue the service on a monthly basis at the current Monthly Extension Rates.

All services under an existing TPP that are not renewed within the period stated above will revert to Option (3) above and will be billed the current Monthly Extension Rates.
(B) Conversions

During the customer’s TPP term, conversions may be made to a new TPP term of the same or greater length. The expiration date of the new service must be beyond the expiration of the original TPP term. With the new TPP, the customer incurs no termination liability for the remaining months on the original TPP.

(C) Termination Liability

Customers requesting termination of service prior to the expiration date of the TPP term will be liable for a termination charge equal to fifty percent (50%) of the Monthly Recurring Rate for the number of months remaining in the applicable TPP term, which is calculated as follows:

\[(\text{Monthly Recurring Rate}) \times (\text{Months Remaining in TPP term}) \times (50\%) = \text{Termination Liability Charge}\]

Example:

A GigaMAN® Customer with a $6,000.00 monthly rate terminates service after 2 years with 1 year (12 months) remaining in a 3 year TPP. The termination liability charge would be calculated as:

\$6,000 \times 12 \times .50 = \$36,000.00 \text{ Termination Liability}
7.17.7 **Moves**

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

- Service rearrangements;
- Point of Termination at the customer’s premises; or
- Customer’s premises.

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

(a) **Service Rearrangement**

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

(b) **Moves Within the Same Building**

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

(c) **Moves to a Different Building**

Moves to a different building will be treated as a discontinuance therefore start of service, all associated nonrecurring charges, and new minimum period requirements, as described in Part 2, Section 2 of this Guidebook, will apply.
(d) GigaMAN® customers subscribing to three (3) and five (5) year Term Pricing Plans may move one end of the GigaMAN® service per the following conditions:

(1) A customer may move one end of the GigaMAN® service to a different premises in the same LATA, without incurring early termination liability charges for their existing GigaMAN® service, providing the following criteria are met, contingent upon the availability of fiber from premises to premises.

- Customers must have completed at least 15 months (for 3 year term plan), and 18 months (for 5 year term plan) of their existing GigaMAN® contracted term plan,

- The customer subscribes to a new term pricing plan period that is greater than the remaining months in the existing term pricing plan,

- Nonrecurring charges will apply where applicable,

- Spare facilities and equipment must be available or special construction charges, as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35.

The moved service will require a disconnect of the existing GigaMAN® service and placement of an order for the new GigaMAN® service for same customer of record as disconnected service.

The monthly rates for the new services(s) shall be those rates in effect at the time the new service(s) is being installed requiring a disconnect of the existing GigaMAN® service and placement of an order for new GigaMAN® service.
(2) The GigaMAN® service installed without protection and customer subsequently request protection options after the GigaMAN® order has been completed, and customer premises locations remain the same. This will require a change to the customer premises based Telephone Company equipment. This change will be treated as an upgrade to the GigaMAN service, and a new nonrecurring charge is applicable. This change will require a disconnect of the existing GigaMAN service and placement of an order for the new GigaMAN service for the same customer of record. With this upgrade the customer will experience an out of service condition.

(3) The GigaMAN service was installed with protection options and the customers subsequently requests a move of the channel termination within the same building afterwards. This request may require a change to the customer premises based Telephone Company equipment which will be determined by the Telephone Company. Nonrecurring charges as set forth in Part 2, Section 7 of this Guidebook are applicable (one-half the nonrecurring charge for the channel termination). With this upgrade the customer will experience an out of service condition.

7.17.8 Mileage Measurement

Mileage is calculated based on the airline distance between the locations involved., i.e. the serving wire centers associated with two customer designated premises and an international boundary point, a serving wire center associated with a customer designated premise and Telephone Company Hub, a serving wire center associated with a customer designated premise and a WATS Serving Office as described in Part 2, Section 2 of this Guidebook.
7.17.9 Upgrades

An upgrade is considered an increase in speed or capacity when comparing GigaMAN® Service to the new service. Customers will be permitted to upgrade to a higher-speed service provided by the Company, without incurring Termination Charges, given all of the following conditions are met:

(1) The customer must issue a disconnect order for the existing GigaMAN® Service and place a service order for the new higher-speed service at the same locations such that there is no more than 90 days overlap in service.

(2) The new higher-speed service term must be equal to or greater than the remaining time left on the existing GigaMAN® term.

(3) The existing GigaMAN® Service must have been in service for a minimum period of 15 months for a 36-month term or 18 months for a 60-month term. Existing GigaMAN® Service with 12-month terms will not be eligible for this upgrade option.

The monthly rates for the new service will be those rates in effect at the time the new service is installed.
7.17.10 Modification of Access Service Order

The customer may request a modification of its Access Order at anytime prior to notification by the Telephone Company that service is available for the customer’s use. The Telephone Company will make every effort to accommodate a requested modification when it is able to do so with the normal work force assigned to complete such an order within normal business hours.

If the modification cannot be made with the work force during normal business hours, the Telephone Company will notify the customer. If the customer still desires the Access Order Modification, the Telephone Company will schedule a new service date. All charges for Access Order modifications will apply on a per occurrence basis as described in Part 2, Section 5 of this Guidebook.

7.17.11 Optional Features

(A) Protection Options

Protection options are provisioned on the customers GigaMAN® Service and the customer is not required to purchase a second GigaMAN® circuit for protection options. Protection options are applied on a per GigaMAN® circuit basis only.

Protection options are available where facilities and/or operating conditions permit. Where facilities and/or operating conditions do not permit, special construction charges as set forth in this Guidebook, may apply. Protection options provide additional levels of reliability to GigaMAN service. There are multiple protection options offered. The options do no need to be the same, but both Channel Terminations of the GigaMAN service must include some form of protection for the service to be considered protected.

The Telephone Company will design the protection optional based upon the configuration of the customers GigaMAN® service.

Additional repeaters may be necessary on the protected path as determined by the Telephone Company as set forth in Part 2, Section 7 of this Guidebook.
Protection switching in less than 50 milliseconds will occur on GigaMAN® services with Protection options, with the exception of Power Protection which is not switch protected. Protection options are offered with a Service Level Agreements (SLA) that target a service availability of 99.999%. SLA’s are not applicable in the event of cable cut in any unprotected portion of the GigaMAN® service fiber path or when customer requested modifications to the service require down time.

GigaMAN® Protection Options are offered as follows:

1. Equipment Only Protection – per Termination End

2. Equipment Plus Fiber Path Protection
   - (a) Equipment Plus Alternate Wire Center Path Protection – per Terminating End
   - (b) Equipment Plus Channel Termination Path Protection – per Terminating End
   - (c) Inter Wire Center Path Protection – per Interoffice Segment

3. Power Protection

(B) **Equipment Only Protection**

Equipment Only Protection offers one GigaMAN® signal routed on two different fiber pairs that co-exist in the same cable and conduit structure that terminate into two distract and separate network terminating equipment devices at the customer’s premises.

All protected configurations have one working and one standby path. In event of a failure of the customer’s transmission path, the GigaMAN® equipment will switch, within 50 milliseconds of detection, the customer’s transmission to a dedicated standby path.
In the event of a failure to both fiber transmission paths, an out of service condition will result. This form of protection can only be ordered per channel termination for each protected GigaMAN® service, and may also apply to the Inter-Wire center segment if the GigaMAN® service is served by more than one serving wire center.

If a customer requests complete protection extending to the SBC serving wire center from their premises location when utilizing Equipment Protection, they must request diverse entrance facilities into their premises at each end from the nearest SBC splice point closest to the customer premises location, this work is subject to special construction charges as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35.

(C) Equipment Plus Fiber Path Protection

Equipment Plus Fiber Path Protection offers varying degrees of path protection for each channel termination of the GigaMAN® service, plus the inter-wire segment if the service is served by more than one SWC, and is offered as follows:

(1) Equipment Plus Alternate Wire Center Path Protection

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

If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine accept the engineered path or agree to pay special construction charges as set forth in Southern New England Telephone Company Tariff P.C.C. No. 35, to provide a completely diverse route where the ten foot allowance is not acceptable to the customer.

Where facilities are not available, the Customer may select Equipment Only Protection for an inter-office segment. This option can be selected for one or both channel terminations of the GigaMAN service.
All protected configurations have one working and one standby path. In the event of a failure of the customer’s transmission path, the GigaMAN service will switch to a dedicated standby path within 50 milliseconds of detection. In the event of a failure to both fiber transmission paths, an out of service condition will result. This form of protection can only be ordered per channel termination for each protected GigaMAN service.

If a customer requests complete protection extending to the SBC serving wire center from their premises location when utilizing Equipment Protection Plus Alternate Wire Center Path Protection, they must request diverse entrance facilities into their premises at each end from the nearest SBC splice point closest to the customer premise location. This work is subject to special construction charges as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35.

(2) Equipment Plus Channel Termination Path Protection

Equipment Plus Channel Termination Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths, to the customer’s normal serving wire center.

If any location(s) between two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine to accept the engineered path or agree to pay special construction charges as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35, to provided a completely diverse route where the ten foot allowance is not acceptable to the customer.

All protected configurations have one working and one standby path. In the event of a failure of the customer’s transmission path, GigaMAN® technology will switch within 50 milliseconds of detection, the customer’s transmission to a dedicated standby path.
In the event of failure to both fiber transmission to a dedicated standby path. In the event of a failure to both fiber transmission paths, an out of service condition will result.

This form of protection can only be ordered per channel termination for each protected GigaMAN® service, from the customers premises location, or from the manhole/splice point nearest the customer premises), to the Utility serving wire center.

If a customer requests complete protection extending to the SBC serving wire center from their premises location when utilizing Equipment Protection Plus Channel Termination Path Protection, they must request diverse entrance facilities into their premises at each end from the nearest SBC splice point closest to the customer premises location. This work is subject to special construction charges as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35.

(3) Inter-Wire Center Path Protection

Inter-Wire Center Path Protection offers a duplicate GigaMAN® signal routed over two diversely routed fiber paths, between the two serving wire centers or alternate wire centers. Path protection starts at the nearest manhole outside the Telephone Company serving wire center. Inter-Wire Center Path Protection must be ordered with either Equipment Only, Channel Termination Path Protection or Alternate Wire Center Path Protection.

If any location(s) between the two fiber paths is closer than ten feet, the location(s) will be disclosed to the customer. The customer will determine to accept the engineered path or agree to pay special construction charges as set forth in Southern New England Telephone Company Tariff F.C.C. No. 35 to provide a completely diverse route where the ten foot allowance is not acceptable to the customer.
All protected configurations have one working and one standby path. In the event of a failure of the customer’s transmission path, GigaMAN® technology will switch, within 50 milliseconds of detection, the customer’s transmission to a dedicated standby path. In the event of a failure to both fiber transmission paths, an out of service condition will result.

(4) **Power Protection**

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

Power Protection is offered on a per equipment bay capacity basis, per customer premise, and depending upon the number of GigaMAN services for the GigaMAN customer of record. The Telephone Company will apply the power protection rate elements based upon the circuit capacity, and more than one element may be applicable. The Telephone Company will determine the design and engineering requirements for Power Protection for GigaMAN® customers.

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

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

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

Customers are responsible for providing floor space for power equipment as set forth in Part 2, Section 2 of this Guidebook.
7.17.12 Allowance for Service Interruptions

GigaMAN® (Not Fully Protected)

The GigaMAN® outage credits listed below are in lieu of, and not in addition to, the outage credit allowances provided for in the General Conditions Section of this Guidebook.

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this Guidebook, or in the event that the protective controls applied by the Company result in the complete loss of service by the customer. An interruption period starts when an inoperative service is reported to the Company and the Company confirms that continuity has been lost, and ends when the service is operative.

In case of an interruption to GigaMAN® 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 percent of the applicable monthly rates.

The Company’s failure to provide or maintain services under this Guidebook shall be excused by force majeure events such as, but not limited to, an earthquake, hurricane, flood, fire, storms, tornadoes, explosion, lightning, power surges or failure, fiber cuts, strikes or labor disputes, acts of war, civil disturbances, acts of civil or military authorities or public enemy, governmental orders, civil commotion, criminal actions taken against the Company, acts of God and other circumstances beyond the Company’s reasonable control.
GigaMAN® (Fully Protected)

A Service Level Agreement (SLA) is offered with fully-protected GigaMAN® service, which provides the customer with a performance commitment that includes financial compensation if the service does not perform as described.

An SLA of 99.999 percent Service Availability performance is offered on GigaMAN® service with protection (defined as Equipment Plus Path Protection) for every segment of the service.

If this SLA is not met, the customer will be entitled to a credit equal to 100 percent of the monthly rate for the period of the interruption of service affecting that rate element(s), not to exceed the total monthly charges for the services. Only one such credit in a billing period will apply.

The service is considered interrupted when the customer reports a service disruption of greater than ten (10) consecutive seconds to the Telephone Company and the Telephone Company confirms that continuity of its service has been lost.

In order to qualify for this credit, the outage must be determined by the Telephone Company to be in its network and the failure occurred in that part of the service with the protection. SLA adjustments are not available in the event of a cable cut, in any unprotected portion of the GigaMAN® service fiber path, or due to customer requested modifications to the service that may require down time.

SLAs are applicable to customers who purchase Equipment Plus Alternate Wire Center Path Protection or Equipment Plus Channel Termination Path Protection on both ends of a GigaMAN® service (both channel terminations) as well as Inter-Wire Center Path Protection when applicable. The customer is responsible for notifying the Telephone Company when the service parameter within the calendar month falls below the committed level. The customer must request a service credit adjustment within 25 days after the end of the month when the failure occurred.
### 7.17.13 Rates and Charges

#### (A) Recurring Charges

<table>
<thead>
<tr>
<th>Term Pricing Plan</th>
<th>Monthly USOC Extension</th>
<th>12 Mo.</th>
<th>36 Mo.</th>
<th>60 Mo.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(1) Local Distribution Channel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Per Point of Termination Terminating Bit Rate 1 Gbps</td>
<td>TMECS</td>
<td>$3,800.00</td>
<td>$3,300.00</td>
<td>$2,850.00</td>
</tr>
</tbody>
</table>

#### (2) Interoffice Transport Mileage

- **Fixed**
  - 1L5XX | $250.00 | $250.00 | $200.00 | $100.00 |

- **Per Mile** 1 Gbps
  - 1L5XX   | $125.00 | $125.00 | $100.00 | $75.00 |

#### (3) Repeater VU4

- **each**
  - VU4    | $2,500.00 | $2,400.00 | $1,150.00 | $850.00 |

#### (4) Diversity Options

- **Local Channel Diversity**
  - Per Channel Terminating Bit Rate 1 Gbps
    - All States CPALX | $750.00 | $750.00 | $750.00 | $750.00 |

- **Inter Wire Center Diversity**
  - Per Circuit Terminating Bit Rate 1 Gbps
    - All States CPATX | $500.00 | $500.00 | $500.00 | $500.00 |

- **Alternate Wire Center Diversity**
  - Per Channel Termination bit Rate 1 Gbps
    - All States CPAAX | $1,200.00 | $1,200.00 | $1,200.00 | $1,200.00 |
### (A) Recurring Charges

<table>
<thead>
<tr>
<th>(5) Protection - per GigaMAN® service arranged</th>
<th>Monthly USOC Extension</th>
<th>12 Mo.</th>
<th>Term Pricing Plan 36 Mo.</th>
<th>60 Mo.</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Equipment Only Protection, per terminating end</td>
<td>CPAEX 1,500.00 $1,375.00 1,050.00</td>
<td>900.00</td>
<td>$625.00</td>
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<tr>
<td>-Equipment Plus Alternate Wire Center Path Protection, per terminating end</td>
<td>CPAFX 2,460.00 2,050.00</td>
<td>1,600.00 1,400.00</td>
<td>1,400.00</td>
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<td></td>
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<tr>
<td>-Equipment Plus Channel Termination (Local Channel) Path Protection, per terminating end</td>
<td>CPAGX 2,190.00 1,825.00</td>
<td>1,425.00</td>
<td>1,225.00 1,225.00</td>
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<tr>
<td>-Inter Wire Center Path Protection, per Circuit</td>
<td>CPAHX 475.00 375.00</td>
<td>150.00</td>
<td>100.00 625.00</td>
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<tr>
<td>-Power Protection(1) VBBGX 700.00 625.00</td>
<td>480.00</td>
<td>435.00</td>
<td>475.00</td>
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</tbody>
</table>

(1) Power protection rate elements are applicable as set forth in 7.17.11(A)(4), preceding.
### (B) Installation and Rearrangement Charges

<table>
<thead>
<tr>
<th></th>
<th>USOC</th>
<th>Nonrecurring Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Administrative</td>
<td>ORCMX</td>
<td>12 Months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36 Months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60 Months</td>
</tr>
<tr>
<td>Charge per Order</td>
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<td>$60.00</td>
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<td></td>
<td></td>
<td>$60.00(^{(1)})</td>
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<tr>
<td></td>
<td></td>
<td>$60.00(^{(1)})</td>
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<tr>
<td>(2) Design Central Office Connection</td>
<td>NRBCL</td>
<td>$230.00</td>
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<tr>
<td>Charge per circuit</td>
<td></td>
<td>$230.00(^{(1)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$230.00(^{(1)})</td>
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<tr>
<td>(3) Customer Connection</td>
<td>NRBBL</td>
<td>$1,500.00</td>
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<tr>
<td>Charge per termination</td>
<td></td>
<td>$1,500.00</td>
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<tr>
<td></td>
<td></td>
<td>$1,500.00(^{(1)})</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,500.00(^{(1)})</td>
</tr>
</tbody>
</table>

\(^{(1)}\) The Administrative, Design Central Office Connection and Customer Connection non-recurring charges will be waived for 36 and 60-month terms for new service.